

1-1-1995

A garden in the desert? A regional study of ranching and farming in Southern Nevada, 1870-1930

Sherryl Lynn Weber
University of Nevada, Las Vegas

Follow this and additional works at: <https://digitalscholarship.unlv.edu/rtds>

Repository Citation

Weber, Sherryl Lynn, "A garden in the desert? A regional study of ranching and farming in Southern Nevada, 1870-1930" (1995). *UNLV Retrospective Theses & Dissertations*. 491.
<http://dx.doi.org/10.25669/khhh-pg8n>

This Thesis is protected by copyright and/or related rights. It has been brought to you by Digital Scholarship@UNLV with permission from the rights-holder(s). You are free to use this Thesis in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself.

This Thesis has been accepted for inclusion in UNLV Retrospective Theses & Dissertations by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact digitalscholarship@unlv.edu.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

A GARDEN IN THE DESERT?: A REGIONAL STUDY
OF RANCHING AND FARMING IN
SOUTHERN NEVADA,
1870-1930

by

Sherryl L. Weber

A thesis submitted in partial fulfillment
of the requirements for the degree of

Master of Arts

in

History

Department of History
University of Nevada, Las Vegas
May 1995

UMI Number: 1374920

UMI Microform 1374920

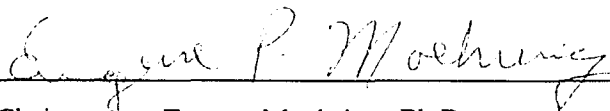
Copyright 1995, by UMI Company. All rights reserved.

This microform edition is protected against unauthorized
copying under Title 17, United States Code.

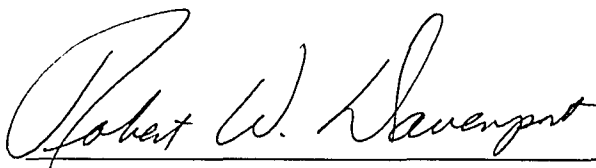
UMI

300 North Zeeb Road
Ann Arbor, MI 48103

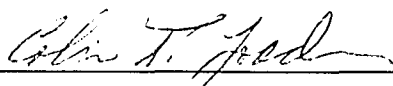
The Thesis of Sherryl L. Weber for the degree of M.A. in History is approved.



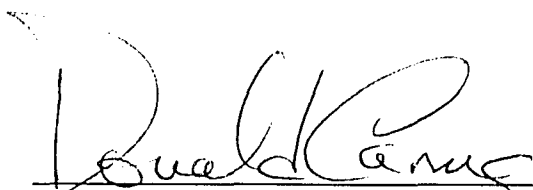
Chairperson, Eugene Mochring, Ph.D.



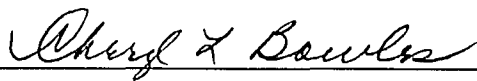
Examining Committee Member, Robert Davenport, Ph.D.



Examining Committee Member, Colin Loader, Ph.D.



Graduate Faculty Representative, Donald Carns, Ph.D.



Interim Dean of the Graduate College, Cheryl Bowles, Ed.D.

University of Nevada, Las Vegas
May 1995

ABSTRACT

In the years between 1870 and 1930 Southern Nevada ranchers were actively engaged in reclaiming the land for agriculture. The availability of cheap land, artesian water, railroad transportation, nearby markets, along with enthusiastic support from town boosters facilitated their determined efforts to develop agriculture as a viable economic activity. Ranching and farming played an important role in Southern Nevada's early development and contributed in a significant way to its economic growth. Moreover, it reflects a noteworthy and integral part of the area's history.

TABLE OF CONTENTS

ABSTRACT.....	iii
PREFACE.....	v
CHAPTER 1 AGRARIAN ROOTS OF SOUTHERN NEVADA: 1855-1870.....	1
CHAPTER 2 RANCHING ON THE DESERT FRONTIER, 1870-1900.....	9
CHAPTER 3 THE DEVELOPMENT OF THE LAS VEGAS VALLEY: TRANSPORTATION, WATER, AND LAND, 1900-1915.....	29
CHAPTER 4 RANCH BUILDING IN THE LAS VEGAS VALLEY, 1910-1920.....	52
CHAPTER 5 PROGRESSIVE ERA FARMING, 1905-1929.....	94
CHAPTER 6 THE BUSINESS OF FARMING, 1920-1929.....	123
APPENDIX 1	
NOTES	145
BIBLIOGRAPHY.....	165

PREFACE

Jeanne Elizabeth Wier, founder of the Nevada Historical Society in 1904, wrote that “Nevada has been ‘scarred’ by history because of its peculiar past....A scar not merely of scant population, but of retarded development...a lack of home-building instinct and from the absence of an agricultural stage in its proper time and place.” Professor Wier may have revised her opinion regarding Nevada’s flawed historical identity if she had observed Southern Nevada’s early development more closely. Home-building instincts along with agricultural pursuits were highly visible activities around the Las Vegas Valley and hinterlands beginning in the late 1860s. In fact, the decades between 1870 and 1930 witnessed determined efforts to transform arid lands into cultivated gardens “blossoming like the rose” and establish a stable family-life on the desert frontier.

In evaluating and scanning secondary publications on the agricultural settlement of the West, it becomes clear that the development of ranching and farming has been mostly neglected by historians and other writers who have devoted more time on presumably more interesting or exciting subjects. No where is this more apparent than in books written about the history of Las Vegas which seem to deal exclusively with the town’s casino industry or with the city’s lack of morality. While preparing this work and examining sources including oral histories, newspapers, government documents, census manuscripts, articles, books, and other resources, it became clear that the history of agricultural settlement in Southern Nevada was an important aspect of the area’s beginnings and that the Las Vegas Valley, indeed, had a history before it became a world-renowned gambling mecca. Beneath the facade of glitter and neon, Las Vegas has another story to tell--not of riches to be mined underground or from casino gaming, but from what could be extracted from above ground with the touch of water. Though generally considered a town founded on the railroad and mining, early Las Vegas exhibited a strong fascination with agriculture which continued until World War II when casino gambling and tourism became the chief

concern. Until that time, despite significant individual accomplishments, agriculture trailed mining and the railroad's pay roll in terms of its importance to the region's economic life.

Las Vegas's future transformation into a major resort city began with pioneer ranchers and farmers who struggled to establish agriculture as a viable economic activity in Southern Nevada's early decades. Their efforts to develop agriculture created a unique community spirit and served as a unifying force drawing town and farm alike together in a common cause as both sectors concentrated their energy towards building a strong and prosperous agricultural economy. Although the town's economic focus changed and Southern Nevada surrendered to the desert, as well as to more lucrative ventures, community spirit remained alive and would eventually transform Las Vegas into a resort destination. The purpose of this study is to describe the development of ranching and farming between 1870 and 1930 in Southern Nevada, to fill a gap in the history of the Las Vegas Valley, and to suggest that its early settlement patterns compared with those of other agricultural regions throughout the West. This paper also refutes Southern Nevada's "exceptionalism" in terms of its history, along with the idea that its early development was an anomalous departure from the normal patterns of western development. "Garden in the Desert?: A Regional Study of Ranching and Farming in Southern Nevada, 1870-1930," is one of the first attempts to weld Southern Nevada's agricultural history into one comprehensive framework and convey its importance to the economic development of Southern Nevada and the city of Las Vegas.

I would like to thank Dr. Eugene P. Moehring for his excellence in editing, his valuable knowledge on the art of writing, and, most of all, for his patience. Thanks also to Dr. Robert Davenport for suggesting the title and for his helpful advice.

CHAPTER 1

AGRARIAN ROOTS OF SOUTHERN NEVADA: 1855-1870

Upon viewing the Great Basin in the 1860s, naturalist John Muir observed that “to the farmer who comes to this thirsty land from beneath rainy skies, Nevada seems one vast desert, all sage and sand, hopelessly irredeemable now and forever.”¹ Redeeming the desert from the onslaught of sand and sagebrush and making it productive kept Southern Nevada ranchers and farmers actively engaged in the years between 1870 and 1929. Ranching and farming played an important role in Southern Nevada’s early development and contributed in a significant way to its economic growth. The availability of cheap land, abundant artesian water, fertile soil, and a “sub-tropical” climate supplemented by railroad transportation, nearby markets, and enthusiastic support from community leaders facilitated Southern Nevada’s agricultural development. Moreover, town boosters from Las Vegas and elsewhere helped to diversify and strengthen the economy by spearheading promotional campaigns to attract desert farmers. Indeed, the continuing efforts of determined ranchers and farmers to develop agriculture as a viable economic activity is a noteworthy and integral part of Southern Nevada’s history. With all essential elements for agricultural success readily available, ranchers and farmers set about transforming arid desert lands into cultivated gardens “blossoming like the rose.”²

As in most western communities, ranching and farming operations in Southern Nevada developed initially to meet the demands of mining camp residents. Following the railroad’s arrival in 1905 and the subsequent discovery of an artesian water supply, Las Vegas considered agriculture the key to expanding the region’s economic base. Until the mid-nineteenth century, however, Southern Nevada’s potential for agricultural development, like the West’s itself, was either overlooked, disparaged, or virtually unknown. According to agricultural historian Gilbert Fite, in the latter nineteenth century,

less was known about the fertility of western soil than about any other resource in the region. Only a few efforts were undertaken to evaluate the feasibility of commercial farming in the arid southwest. Upon considering such efforts, Army General William B. Hazen wrote that despite myriad government explorations and surveys, information regarding the West's agricultural potential remained virtually unknown as late as 1870. He remarked that "year after year, at great expense, the government sent out parties of scientific men...but I have never known any one charged to learn and report...whether it is good for agriculture." ³

In addition to lack of knowledge, the concept of the Far West as "the Great American Desert" was a negative overarching image that was difficult to overcome. Throughout the nineteenth century this imagery was reinforced and substantiated in various reports and observations made by explorers, travelers, army officers, and government-funded geological and survey expeditions. Recorded impressions described Nevada and much of the Far West as an arid region unsuitable for crops or as a region of limitation. For example, fur trapper Jedediah Smith, exploring Nevada in 1827, described the sterile landscape as "positively un-American in its lack of productive potential." Explorer John C. Fremont, in 1844, viewed Nevada as "an unmapped, strange land, an Old Testament desert placed in a Great Basin" with a landscape indicating "limited productive capacity...with sterility the absolute characteristic...and sagebrush the prevailing shrub." Army officers traveling through the West after the Civil War also saw no signs of an agricultural future. General William Tecumseh Sherman echoed their opinions when he reported in 1866 that it was "impossible to conceive of a more dreary waste." Such luminaries as Mark Twain, Horace Greeley, and other eastern writers and newspapermen largely regarded the West as a wasteland, worthless for agriculture.⁴

By the late 1860s, however, the notion of the West as a desert wasteland was in retreat. As more travelers including tourists, businessmen, newspaper editors, railroad men, and others traversed the land, they began to renounce the barren desert theory and offered freshly-drawn observations which suggested instead that the West was capable of

sustaining agricultural productivity. These more favorable opinions, in refuting the old image, were important to the area's agricultural settlement. Pioneer ranchers and farmers, imbued with western-style attributes of independence and self-reliance, and ever disdainful of outside advice or opinion, also rejected the "Great American Desert" concept and boldly headed for the "promised land." Possessing an uncanny ability to distinguish farm land from waste land, ranchers and farmers commenced laying the foundations for agricultural communities throughout the West, growing crops and raising beef wherever profitable for mining towns and later, for shipment by the region's growing network of railroads.

The most profitable areas were those near western mining camps and other isolated outposts and Southern Nevada fit this regional pattern. According to Fite, by the early 1860s the farmer's frontier became symbiotically linked to the mining, transportation, and military frontiers. Miners at Mt. Potosi, El Dorado Canyon and other mining camps, soldiers stationed at Fort Mojave or Camp El Dorado; and teamsters employed in both settings hungered for fresh produce, meat, and dairy goods. In response, Southern Nevada farmers began tilling the soil to supply their needs. By the 1880s, ranching and farming homesteads dotted the Southern Nevada landscape wherever water was available. ⁵

The Las Vegas Valley's agricultural origins date back to its earliest inhabitants who initiated the practice of desert cultivation. Between 300 B.C. and 1150 A.D. primitive Indian horticulturalists identified as Puebloan people or "Anasazi," grew corn, beans, and squash near riverbank settlements along the Colorado, Muddy, and Virgin Rivers. The Anasazi, employing primitive irrigation methods, adeptly utilized the water from the Colorado River and its adjoining tributaries to serve their agricultural needs. ⁶

Around 1150 A.D., the Anasazi abandoned their carefully tilled settlements and inexplicably left the area. Southern Nevada Paiutes took possession of vacated Pueblo land and began cultivating small plots. Early white explorers perjoratively called the Great Basin Indians "Diggers" and viewed the Paiute tribe as "a miserable clan--figures out of the Stone Age who lived on rats and bugs." However, some of the Southern Paiutes, unlike their Northern clansmen, developed a farm-based settlement pattern and engaged in basic

crop raising. Because the Paiutes were seasonal nomads in a harsh environment, the bands did not confine their farming activities to riverside camps. Tribesmen also grew corn, pumpkins, and melons, within a limited area, in small gardens around the Las Vegas Valley and the Mt. Charleston foothills nearby. ⁷

Canal remains found around some of the larger springs and water mounds near early settlements indicate that the Paiutes practiced crop irrigation. The Paiutes most likely did not discover that artesian water (so important to the valley's later agricultural activity), located at comparatively shallow depths, was the source of the springs. Therefore, agricultural development was meager. ⁸

The Mojave or River Indians along the lower Colorado and the Chemehuevi, the Paiutes's nearest neighbors to the south, also practiced irrigation. Mojave agricultural practices included utilizing spring floods to fertilize their fields. After the Colorado River water receded, the Mojaves planted gardens of corn, melon, beans, and pumpkins. In 1854, Lieutenant Amiel Weeks Whipple, United States Topographical Engineer, reported seeing the remains of a Chemehuevi Indian garden of corn and melons near Searchlight while George Bean, an early Mormon settler, noted the farming efforts of a Paiute settlement. He observed fifty men and women along the Colorado River "in a perfect state of nudity...who had raised a little wheat on a sandbank...it was all ripe and harvested." ⁹

Although Southern Nevada Indians contributed little to the development of agriculture on a permanent basis, their early water diversion practices stand as mute testimony that farming in the Las Vegas Valley was impossible without irrigation. Water remained the key to opening the valley to permanent agricultural settlement.

Water and the search for agricultural lands and religious converts as well as the need for way-stations on the Old Mormon Trail between Utah and San Bernardino after 1850 eventually attracted white settlers into Southern Nevada. In 1847 Mormon President Brigham Young planned to colonize the "heart of the desert" between Cedar City and California as part of the southwest expansion of Deseret.¹⁰ He advised members of the Mormon Battalion to be on the look-out for favorable locations as it made its way to

California to aid the United States in the war with Mexico. Addison Pratt, sent out to investigate potential mission sites, recorded in his diary that “the Vegas had the finest stream...the valley is extensive and...by the aid of irrigation...highly productive.” In 1855, Utah missionaries chose Las Vegas as a suitable site for a new Mormon colony due to its abundant spring water, potentially rich soil, and agreeable climate. With the goal of establishing the first permanent agricultural settlement in Southern Nevada, Mormon missionaries initiated the development of ranching by bringing the first cattle into the valley. In addition, pioneer farmers, through experimentation, introduced a variety of crops to the soil with productive results which demonstrated the feasibility of agricultural pursuits despite arid desert conditions.

The colonists successfully placed two farms under cultivation--the Mormon Fort or ranch near the Las Vegas Springs and the Indian demonstration farm two miles northwest. Mormon settlers established the demonstration farm in order to instruct the local Paiutes in basic farming methods and discourage them from stripping crops from the fort. Settlers kept extensive journal entries recording their crop results. Despite the ravages of blackbirds, grasshoppers, and jackrabbits, they successfully raised corn, melons, peas, beans, oats, wheat, and other varieties. In July 1856, the Mormons planted cotton along with an assortment of fruit seeds. Mission leader William Bringham reported to church authorities that the missionaries were in the process of procuring grape cuttings, fig trees, and other varieties from lower California --1000 slips were ordered at \$10 per 100. Bringham verified that “many fruit trees have been planted which I believe can be brought to as great a state of perfection as in any other place in the world.” In addition to farming, Mormon colonists turned to mining in 1856 with the discovery of lead deposits at Mt. Potosi 27 miles southwest of the fort.¹¹

Although the new colony appeared promising with good crop yields and ore production, mounting problems soon overwhelmed the community. The missionaries returned to Salt Lake City in 1857, abandoning two productive farm sites and the mining operations at Mt. Potosi, and leaving behind an enduring legacy. Mormon pioneers, in the

process of expanding the farming frontier, established Southern Nevada's agricultural base. Moreover, the Mormons were the first Anglo-Americans to develop productive farming in the arid West through irrigation. Despite the Las Vegas Valley's agricultural promise, the Mormon exodus returned it to relative obscurity. Except for a few cattle grazers, the settlement remained abandoned for several years after the Mormon interlude and Southern Nevada's potential remained temporarily untapped.

In 1860, a party of California miners explored the area and resumed mining operations at Mt. Potosi as the Colorado Mining Company. This was the first underground mine worked in Nevada and the site of the state's first smelter.¹² Potosi was also the first of several mining camps established throughout Southern Nevada. By 1910, fifty different mining camps were in various stages of activity. Throughout the West, mining was a crucial factor in the development of agriculture and Southern Nevada was no exception. Because miners in El Dorado Canyon, along the Colorado River, and in the mountains bordering Nevada and California required provisioning, enterprising Westerners established homesteads in proximate areas to supply the camps with fresh fruit, vegetables, beef, and dairy products. Local growers also supplied travelers, soldiers, and transportation crews. But mines were the major market in Nevada and the West.¹³

Of course the boom-bust cycle of the industry always threatened the collapse of the local food markets, but farmers could always find new markets a little farther away. In fact many miners were former farmers who would revert to their old occupation when the mines gave out. Although less promising as a source of sudden wealth, agriculture brought a steady income. Indeed, one English traveler described miners-turned-farmer as "yanks of a better sort who have wasted their fortunes in mines and are now reconstructing it by agriculture."¹⁴

One Southern Nevada miner who farmed was Captain Jere Stevens, president of the Colorado Mining Company. Stevens directed mining activities from the abandoned Mormon Ranch where he also engaged in vegetable gardening. Increasing demands for fresh produce commanding high prices prompted other Mt. Potosi miners to cultivate gardens near the smelter. One prospector observed a frustrated miner leaving the Potosi

camp “toting a bottle of whiskey and a loaf of bread” to establish his own Las Vegas ranch. Other miners followed suite, staking out valley acreage to start small vegetable gardens and fruit orchards. Local miners and travelers plying the Salt Lake Trail readily purchased the fresh produce. ¹⁵

By late 1861, the Mt. Potosi silver boom subsided and most of the miners-turned-farmer left. Many returned instead to their original occupations after promising new mining strikes were made at El Dorado Canyon, forty miles to the south. None established permanent homesteads in the Las Vegas Valley. In any case, only a few areas in the 1860s and 1870s were supplied with enough water to maintain year-round operations. Despite mining as a regional stimulus to Southern Nevada’s agricultural development, the valley’s limited water supply, continuing isolation, lack of railroad transportation, and remote location hindered the expansion of the ranching and farming frontier. As a result, settlers practiced little more than subsistence farming.

After the departure of the mining corps, cattle raising became the area’s dominant industry. As in most frontier regions, cattle ranching preceded farming settlements and this was the case in Southern Nevada. The westward advance of the cattle frontier resulted from post-Civil War profits accruing from beef shortages, railroad expansion, and Indian removal. Mining booms were also a factor as camps provided lucrative markets for selling beef on the hoof. Cattle raising, however, developed slowly because of Nevada’s distance from population centers and its arid climate. ¹⁶

The western expansion of the cattle frontier eventually spilled over into Southern Nevada where several cattle herds pastured on the open range lands around the valley and mountain foothills. L.L. “Cub” Lee of Sandy, for example, arrived in Southern Nevada via Lone Pine and Death Valley, California in 1864, and returned in 1866 to graze his cattle on the open rangelands until his departure twenty years later. In 1910, the Las Vegas Age described Lee as a “real pioneer, not one of those who came in on the railroad.” Lee ran cattle in the remote desert areas and experienced life as the only white man in the district for months at a time. He left Nevada in 1890 moving his cattle business back to California before selling out in 1907. The Age reported that Lee’s adventures “would fill a book with

thrills...but [he] is reticent as to his experiences.”¹⁷ Other cattlemen arrived after Lee to establish more permanent holdings in remote areas around the valley. Scattered ranches and small farms sprouted wherever water was found.

As Lee began his solitary life out on the range, Washington politicians considered Southern Nevada’s agricultural future. In May 1866, Congress proposed a bill at Nevada’s request to extend the newly formed state southward to include Southern Nevada (located in Arizona Territory). The southern portions of Lincoln and Nye Counties along with all of Clark County typically delineates the area referred to as Southern Nevada. The Nevada legislature accepted the grant in January 1867. The incorporation of the land below the 37th parallel to the south provided the state with a legitimate outlet to the Colorado River, created a natural boundary separating Nevada and Arizona , and opened up additional lands for agriculture and mining. The Senate Bill creating Nevada’s new boundary prompted Representative Grinnel of Iowa to comment, “I hope we will by all means give Nevada a slice thus securing more arable land to the state....”¹⁸ This was possibly the first mention of Southern Nevada in an agricultural sense.

Despite congressional optimism, with the exception of a few independent cattlemen like Lee, Southern Nevada’s agriculture languished. After the Civil War, the resumption of mining and the discovery of new mineral resources eventually served as the magnet to attract more permanent settlers. Miners and prospectors making the pilgrimage to California, Arizona, and Nevada boom towns in search of gold often passed through Southern Nevada. Some stayed to investigate local mining conditions, and others went on to establish farming and ranching ventures in the Las Vegas Valley and in outlying areas. By the 1870s two pioneer ranchers, Octavius Decatur Gass and Conrad Kiel, had established homesteads in the valley.

CHAPTER 2

RANCHING ON THE DESERT FRONTIER, 1870-1900

By the 1870s Southern Nevada's ranching and farming frontier began to take shape as adventurous settlers and disappointed miners staked out desert acreage near water supplies and established their homestead claims. Many who came to Southern Nevada to mine soon recognized the fleeting nature of their dreams and the improbability of successfully locating a rich vein. Many early arrivals opted instead to pursue a more stable lifestyle with a dependable source of income. Pioneer rancher Octavius Decatur Gass was a case in point. Smitten with gold fever in Ohio, Gass took up mining as a new career and migrated West to California before eventually settling in the Las Vegas Valley via El Dorado Canyon. In 1865, Gass became frustrated with his search for ore and switched to agriculture. He reoccupied the twice-abandoned Mormon Fort and restored the rancho to its former productivity. In the process, he pioneered the first enduring and successful ranching operation in the Las Vegas Valley. In 1878, he purchased the 160-acre Spring Ranch located near the Las Vegas Springs from James B. Wilson, another former miner, who established a ranch at the base of Red Rock Canyon. The springs flowing into the Las Vegas Creek provided ample water for irrigating both ranches. Moreover, the scarcity of water in the valley made this a valuable piece of real estate.¹

Gass, briefly known as the "ranch king" due to his 960-acre holdings and ownership of the valley's water supply, eventually lost both ranches to Archibald Stewart in 1882 as a result of debts. In the nearly twenty years that Gass owned the Las Vegas Ranch, however, it successfully produced a variety of fruits, vegetables, and grains.

Gass annually grew two crops on four hundred acres of irrigated land. The first harvest produced wheat, oats, barley, and other grains and the second resulted in a variety

of vegetables including cabbage, corn, beets, potatoes, melons, and pink Mexican beans. He also laid out a five-acre vineyard, the first in the valley, using French and Spanish grape cuttings obtained from St. Thomas rancher Daniel Bonelli. The orchard on the ranch provided apples, peaches, apricots, and figs. In addition to growing fruits and vegetables, Gass also ran several hundred head of cattle. He found a ready market for surplus produce and beef in the nearby mining camps at El Dorado Canyon and Mt. Potosi while travelers plying the Mormon Trail and soldiers stationed in the area also became customers.

Gass, in addition to ranching, also pursued an active political life. Between 1865 and 1868 he represented Pah-Ute County in northwestern Arizona Territory as an efficient legislator serving four consecutive terms. This area, formerly part of Mojave County, encompassed Callville (the county seat), the Mormon settlements, and most of Clark County, Nevada including the Las Vegas Ranch. Gass' involvement in the legislative process signifies the connection between Southern Nevada ranchers and farmers and politics--an ongoing relationship perpetuated by other land owners including mayors, county commissioners, senators, and congressmen throughout the years of Southern Nevada's unflinching efforts to develop an agricultural economy. ²

Around 1875, Conrad Kiel assumed ownership of the abandoned Mormon Indian Farm, north of Gass' property, thus establishing the valley's second most important ranch. Kiel, a former Ohio neighbor of Gass', transformed the neglected fields into a prosperous operation producing garden produce, especially root vegetables. He provisioned nearby mining camps at El Dorado, Mt. Potosi, and Ivanpah, across the California border, as well as travelers along the Mormon Trail. Moreover, Kiel's orchard was known for its sweet black figs, yellow apples, and apricots, and his vineyards for the quality of its wine. Because wine-making required a supply of bottles, Willard George, Kiel's great-nephew, recalled that while visiting his uncles (Kiel's sons, William and Edwin, eventually took over the winery and ranch) he often went bottle-hunting, collecting a nickel for every one he found. These expeditions took him miles from the ranch. Mining camps with their saloons were prime sources. More than once, a trip to the nearby camp of Goodsprings filled George's wagon with bottles for the Kiel winery. ³

The ranch passed out of Kiel family ownership in 1901. In later years, the first artesian well was drilled on the Kiel Ranch, thus insuring continuing productivity. Kiel's Ranch remained a successful farming operation under several prominent land owners and lessees and played a pivotal role in the valley's agricultural history. The Gass, Stewart, and Kiel Ranches were prime indicators of desert productivity and symbolized the area's potential.

In addition to these prominent valley ranch owners, other pioneer families established homesteads in widely scattered areas throughout the Southern Nevada desert. Fifty miles to the northeast, Mormon agricultural hamlets held sway in the Moapa Valley. The most successful agricultural activities resulted from a close association with the mining camps and took place on lonely ranches and farms located near springs, mountain-fed streams, and small ponds. By the middle of the 1870s, ranchers had appropriated most of the land accessible to water using national land laws.

Changing federal policies regarding land and water are crucial to any understanding of nineteenth century agricultural history in Southern Nevada where desert land with access to water was considered prime real estate. Tillable land, if not purchased outright from a previous owner, was taken up under provisions incorporated in the 1862 Homestead Act, the 1877 Desert Land Act, and the 1885 State Land Act. Land policies, continually amended to meet arid and semi-arid conditions, remained essential to western agricultural development. Farm land assumed under the Homestead Act permitted citizens over age twenty-one to receive 160 acres of free land after paying a small fee. Settlers received title after residing on the homestead for five years and making improvements. Military veterans filing on land after 1880 were allowed to deduct the years of service in the armed forces from the residency requirement. If the homesteader was anxious to receive title sooner, ownership was possible after six months by paying \$1.25 per acre.⁴

By the 1870s, Congress determined that a new approach was needed to dispose of public land in the arid West and sent out surveyors to assess western resources and investigate irrigation possibilities. John Wesley Powell, upon completing his celebrated survey of the Colorado River region, claimed that the Homestead Act's 160-acre parcels

were too small in arid areas unless irrigation was available on part of each farm or ranch. He recommended 2560 acres, arguing that farmers needed larger tracts of land to make irrigation profitable. In 1875, President U.S. Grant agreed that the existing laws were defective and recommended larger allotments of land in order to “justify the expense of conducting water upon it to make fruitful or to justify utilizing it as pasture.” In response, Congress passed the Desert Land Act of 1877. ⁵

This law applied to California, Oregon, Nevada and the eight territories located west of the 100th meridian. A settler could now purchase 640 acres at twenty-five cents per acre upon application but needed to irrigate it within three years of filing. Upon proof of compliance and the payment of one dollar more per acre, a title was issued. O.D. Gass, for instance, acquired the Las Vegas Ranch under this act. The Desert Land Act was the government’s futile attempt to assist homesteaders in arid climates and the first federal land policy specifying reclamation. ⁶

In March 1885, Nevada passed the State Land Act providing for 640 acres of land at \$1.25 an acre. The claimant paid twenty-five cents an acre down and the balance in twenty-five years at 6 percent interest. Although Congress recognized the need for irrigation, the government rejected direct financial support until the turn of the century. ⁷ Federal land policies remained an important factor in Southern Nevada’s agricultural development and often determined the geographical locations of ranching and farming operations. Local topographical maps compiled by government surveyors clearly identified pioneer ranches according to their proximity to various springs, creeks, or ponds. Geographical names on the map denoting various ranching areas whether derived from Paiute words or the Spanish language or as a reflection of settler optimism invoked the image of water and of lush grasslands. ⁸

By the 1880s, ranching enclaves could be found at Indian Springs or Indian Creek, Ash Meadows, Corn Creek, Cottonwood Springs, Goodsprings, Cold Creek, Spring Mountain, Warm Springs, Grapevine Springs, Cow Springs, Pahrump (Paiute for water mouth or big spring), Moapa (Paiute for crystal clear), Rioville, Las Vegas (the Meadows),

and Paradise Valley, all invoking bucolic promise.

Farms therefore extended in all directions beyond the Las Vegas Valley. One of the earliest pioneering homesteads was the Indian Springs Ranch, forty miles northwest of Las Vegas, established in 1876 by Charles W. Towner. Towner, a former New Jersey farmer, arrived in Southern Nevada by way of Missouri and Oregon with his wife Adella and two young children. The Towners, traveling southwest with the Yount family, believed as did many emigrants, that there was safety in numbers. The families, former neighbors in Missouri, were enroute from La Grande, Oregon bound for the Tombstone, Arizona gold strike. Their intention was to sell beef on the hoof to Arizona miners for a good profit before continuing on to settle in Southern California. In 1876, while passing through Southern Nevada near Ash Meadows northwest of Las Vegas, renegade Paiutes, attracted by the five hundred head of cattle and thirty head of horses, attacked the party. The Indians left the travelers stranded after killing their work horses making cattle herding impossible and driving off most of the cattle to be slaughtered later for beef jerkey.⁹

Unable to continue with their original plans, the Towners and the Younts acquired homesteads and became pioneer ranchers. The Yount family settled in Pahrump while the Towners obtained property at Indian Springs. In this frontier era whites sometimes purchased their farms from other whites but could also buy from Indians. Towner, for instance, either purchased his ranch from Andy Laswell for an unspecified amount or traded one hundred head of cattle for it with a Paiute Indian by the name of "Whispering Ben." Although the one hundred head of cattle were allegedly never delivered, Towner secured legal ownership of the 640-acre ranch--the size of a desert land entry--along with its valuable springs and small ponds. With the assistance of Paiute Indian labor and a Texas farm hand, Towner raised a variety of vegetables, which he transported and sold to El Dorado Canyon miners.¹⁰

Following the model pioneered at the Las Vegas Ranch and along trailside farms across the West, Towner sold his Indian Springs ranch to George and Belle Latimer in 1903 who then operated it until 1906 as a popular overnight stop for travelers plying the wagon trail between Las Vegas and the Beatty mining camps. The ranch, later sold to

Senator William Clark and his brother J. Ross Clark, served as a station along the Las Vegas and Tonopah Railroad line accommodating the line's passenger and freight business.

In 1910, the Indian Springs Ranch resumed farming under the ownership of Ira and Alice McFarland. Ira McFarland and his wife, former New Yorkers like Wilson, remodeled the ranch house, relocated the barn, and cleaned-out the ponds which they stocked with goldfish. They also cleared fields for cultivation and pastures for their livestock where they kept cows, pigs, horses, and chickens. In addition, McFarland brought "Whispering Ben" (allegedly the ranch's original owner) and his family back to live and work at his ranch. "Whispering Ben" set up an irrigation system and his wife Jimmie, described by one contemporary as a "mild-mannered Indian," served meals dressed in a white coat and cap and performed other domestic tasks. ¹¹

Like the Las Vegas Valley and Indian Springs, ranching in the Pahrump Valley, twenty miles west of Mt. Charleston, also began in the mid-1880s. The Yount family, Towner's former traveling companions, pioneered ranching in this area. Until the early nineteenth century, Paiutes originally had farmed there where they grew corn, squash, and melons, and had named it for the Indian word meaning "big spring." O.B. Givens and his fourteen-year-old nephew Cecil actually were the first white settlers. The family pair were passengers on a wagon train traveling through the area in the 1860s when Givens decided to stay permanently in the Pahrump Valley. He and his nephew homesteaded a small farm with the aid of Indian John, a Paiute farm hand. They sold fresh produce to wagon train caravans, prospectors, and soldiers passing through to various destinations. Unlike other western areas, race relations between whites and native Americans, at least in Southern Nevada, were relatively peaceful as the area's agricultural history indicates. In this case, Paiutes worked for wages on the ranch, and ultimately, the two ranchers wed Paiute women. ¹²

Not just farmers and frustrated miners took up farming in Southern Nevada. Even ministers bought land. For example, Reverend Samuel McCord, a Presbyterian missionary from Scotland (who performed the two marriages mentioned above), had migrated West with other well-intentioned idealists to "convert the heathen." He was the original owner of

the Yount Ranch which he called the Manse--the name commonly given to the home of a Presbyterian minister. He later sold it to the three Hordan brothers who settled there in 1875. Givens most probably sold to the Bennetts around the same time. ¹³

The Yount family had settled there permanently in 1876 after the Paiute attack left them stranded. The Younts proceeded to develop the Manse as a successful ranching operation as well as mining interests in the Yellow Pine Mining Company. Within a year, Yount converted some of his remaining saddle horses into work animals, planted a garden with mostly corn and watermelons, and added an extra room with insulation to the family's living quarters in preparation for winter. In the spring, Yount with the help of his five sons, son-in-law, and Paiute ranch hands built a more permanent home with two big rooms. The 20- by-40 foot house constructed of Indian-made adobe bricks included a covered veranda providing shade against the desert sun. The thousand-acre Manse Ranch was transformed into a profitable model of agricultural productivity. ¹⁴

More acreage was brought under cultivation with corn and barley and Yount purchased modern farm equipment including mowers, threshing machines, and headers. Yount found markets for fresh garden produce and grain feed at the Tecopa Mining Camp and hot springs thirty miles southwest, at El Dorado Canyon, and at the borax works near Furnace Creek. All three provided lucrative markets for Pahrump Valley ranchers. ¹⁵

Family financial security provided by the Manse helped fund a local mining operation. Yount, like many ranchers and farmers, pursued a second career. Many local ranchers often worked at other jobs in mining or as farm laborers for others or later, for the railroad, to earn additional money for land improvements. After receiving a tip from Paiute Indian Chief Tecopa, Yount began prospecting at a promising area south near Goodsprings. He soon found deposits of gold which led to the organization of the Yellow Pine Mining Company in 1882 that included the Boss and Columbia Mines, and a partnership with Harsha White and Mr. Hamilton. Yount's oldest son Sam later assumed control and in 1914 hit rich veins of gold and platinum. These deposits proved substantial, paying out generous dividends before the ore gave out. ¹⁶

Now with a profitable ranch and mine, the Younts focused on their children's

educational needs. Little red school houses and qualified teachers were scarce on the ranching frontier and, as a result, the Yount children were forced to attend school almost a hundred miles away, across the border at San Bernardino. Their parents took them to school every fall and returned for them in the spring. However, by 1880, the Younts and other successful Southern Nevada farmers, even in the nineteenth century, could afford to hire well-educated male teachers. At that time, James Ross Megarrigle, an Oxford-educated itinerant school teacher, came to the Manse providing at-home instruction. Megarrigle later taught the Stewart children at the Las Vegas Ranch between 1889-1894. So, even though scattered farming areas lacked the advantages of a large town, quality education was present in some places.¹⁷

By 1905, after twenty-five years of ranch life in the Pahrump Valley, the Younts retired in Southern California, finally completing their journey begun a quarter century ago earlier in La Grande, Oregon. Yount died in 1907 followed by his wife in 1912. Their son Sam, who also worked as a “muleskinner” for the borax mine’s twenty-mule teams,¹⁸ took over the mining company while their daughter Maudie and her husband Harsha continued running the Manse (later known as the White House). It became a refuge for travelers and prospectors seeking cold spring water and a hot meal derived from home-grown produce. Even into the 1920s, many isolated ranches in Southern Nevada served as rest stops and offered overnight accommodations for weary motorists. In addition to the Manse, the Indian Springs Ranch and the Las Vegas Ranch also welcomed travelers.¹⁹

The Whites moved to Las Vegas in 1910 after selling their 760-acre ranch for \$50,000 to the Hoffman and Vetter Company of Redondo, California.²⁰ Another son, John Yount, established a ranch twenty miles from the Manse near Goodsprings at Columbia Summit. According to the Las Vegas Age, Yount not only bred cattle but also grew the finest vegetables of every variety including tomatoes, eggplant, cabbage, squash, peppers--both green and chili--sweet potatoes, corn, carrots, beets, turnips, and melons. Yount operated the ranch until his death around 1936. His common-law wife Bell sold the ranch to former Clark County District Attorney Roland Wiley,²¹ one of several Las Vegas

city residents who bought agricultural businesses in the surrounding hinterland.

When the Yount family moved to Pahrump in 1876, Charles Bennett, his wife Mary, and their three young daughters were their closest neighbors. Bennett, the son of Italian immigrants, was originally from Tennessee. He is believed to have first settled in Death Valley establishing a ranch on Furnace Creek.²² In 1875, Bennett and his Irish-born wife established the Pahrump Valley Ranch and planted several acres with vegetables which were sold to local mining camps. The Bennetts were a prime example of how a ranch or farm could be used as a base to help a family diversify into other businesses. The Bennett ranch, for instance, eventually served as a small trading post to which distant merchants shipped consumer goods for local prospectors. In addition to this, Bennett concluded a one-year freighting contract with William Coleman's Harmony Borax Works to haul borax from Furnace Creek, Death Valley to the Mojave railroad line 165 miles away.²³

The Bennetts lived in Pahrump for about seven years, maintaining an extended household--a characteristic of ranching households throughout the West and around the Las Vegas Valley, too. In rural areas lacking town structures, extended households often included the nuclear family as well as various relatives, boarders--often the local school teacher--tutors, servants, farm hands, and frequent visitors. According to the 1880 census, Bennett's household included his wife and children, her sister visiting from Ireland, a housekeeper from New Jersey, and three farm hands.²⁴ The experiences of the Younts, Bennetts, and other pioneer settlers indicate that their isolated ranches functioned as suburban population centers in rural areas lacking nearby towns or villages. The ranch, in addition to its role as an agricultural operation, provided the base from which to fend off marauding Indians, sell trade goods, furnish bed and board, offer mail service, and, most importantly, a place to socialize.

Bennett sold his ranch in 1882 to Aaron and Rose Winters. Before moving to the Pahrump Valley, the Winters, originally from Spain, farmed in the small ranching enclave of Ash Meadows, thirty miles away. Here the Winters had lived primitively in a stone house where, according to one Death Valley chronicler, they had subsisted "like the Paiutes on the desert...the wife doing without the little luxuries and comforts dear to a woman's

heart...living on mesquite beans and chuckawallas when the flour and bacon were gone or going hungry altogether.”²⁵

In 1880 the Winters' lives improved after Aaron discovered the original borax mineral deposits in Death Valley. In 1882, he sold his claims two miles north of the Furnace Creek Ranch to William T. Coleman for \$20,000. Most of the money was used to buy Bennett's large Pahrump Valley Ranch, while the Bennetts moved to Mexico. Rose died of tuberculosis three years after they assumed ownership, but despite his wife's death, Aaron Winters continued on at his ranch. Because he operated a liquor store on the premises, his place also functioned as a resort where thirsty ranchers and Indians could enjoy a hospitable hour. Thirteen years later he sold his land to the Calivada Colonization Company after losing most of it due to delinquent taxes. When the new owners took over the property in 1905, it contained several springs with enough water to irrigate a thousand acres, as well as poplar, willow, walnut, umbrella, cottonwood, and fruit trees of every type. In 1916, the Southern Pacific Railroad purchased the ranch now encompassing ten thousand acres.²⁶

Like Pahrump, Ash Meadows near the California border, where the Winters originally had lived, was also a popular agricultural enclave. Ash Meadows was, in the words of one contemporary, a remote settlement “without schools or other cultural advantages and the [later] capital of Nevada's bootleg [liquor] industry during prohibition.” In addition to the Winters, others including the Lee family took up farming in the area.²⁷

Ranch women made significant contributions on the Southern Nevada agricultural frontier. Elizabeth Lee of Ash Meadows and later, of Goodsprings, symbolized the involvement of women in the latter nineteenth century settlement process. Women played a significant role not only within their own families but in the community's life as well. Southern Nevada's pioneer women, like Lee, who lived on isolated ranches and farms, often under trying conditions, contributed to the family economy, educated their children, provided a social life, entertained visitors, contended with hostile Indians, and in some cases, made difficult family and business decisions usually left up to male problem-solvers. Women hoed gardens, tended livestock, and churned butter. In some cases, they also

suffered from the loneliness of their rural isolation, as did Adella Towner who left her Indian Springs ranch and never returned, or from an early death. Luella Ishmael of Ash Meadows died leaving five children behind while Annie Allcock of El Dorado Canyon, also the mother of five, died when her youngest was four-months-old. Despite hardship, women performed the often onerous duties of ranch life as well as those of hearth and home with efficiency, resourcefulness, and great fortitude. They were not passive participants but labored side-by-side with their husbands. These pioneering women, along with their men, remained the backbone of Southern Nevada ranching. In addition to Elizabeth Lee, several other mothers and wives including Margaret Yount and her daughter Maudie White, along with Mary Bennett and Rose Winter of Pahrump, Adella Towner of Indian Springs, Mary Gass and Helen Stewart at the Las Vegas Ranch, and Luella Ishmael of Ash Meadows pioneered ranching on the Southern Nevada frontier.

Living near the Lee family at Ash Meadows were the Ishmaels, headed by George “old man” Ishmael. Previous to acquiring his own ranch at Ash Meadows, Ishmael worked as a foreman for the Greenland Ranch at Furnace Creek. His son George, Jr., born and raised on the ranch, later took a job as a teamster for the Tonopah and Tidewater Railroad, married Luella Carpenter, daughter of another Ash Meadows rancher, and eventually retired to a small ranch located on the southern slopes of Mt. Charleston. George Ishmael Jr.’s life illustrates that children from ranching families often left to seek employment in the outside world, intermarried with each other, and commonly returned to their rural roots after being exposed to urban life.²⁸

In addition to Pahrump, Ash Meadows, and Las Vegas, other enclaves arose in the 1880s. South of Ash Meadows and twenty-five miles southwest of the Las Vegas Ranch another long-time ranching operation was established. Nestled at the base of Red Rock Canyon, the Wilson Ranch was known by several names including the Sandstone and Spring Mountain Ranch. It became more notable in later years due to the celebrity status of several of its former owners. Ex-New Yorker James “Jack” Wilson, an army sergeant previously stationed at Fort Mojave and a part-time miner, acquired the five-hundred-acre parcel in 1876, possibly using the money received from the sale of his Spring Ranch.

Soldiers, like former miners, often turned to ranching. In fact, many demobilized soldiers headed to the far-western frontier in the late 1860s hoping to recreate the sense of danger, excitement, and adventure they experienced during the Civil War. By 1880, Wilson was a full-time stockraiser operating a profitable cattle business. He often delivered beef during the cooler evening hours to local mining camps around El Dorado Canyon, Nelson, and Mt. Potosi, and to Ivanpah across the California border. Nearby were other ranchers including fellow New Yorker Charles Greenleaf and his family at the Greenleaf Ranch, as well as Olivant Rose, a young stockraiser from Canada.²⁹

Ranches served as a bastion of family life which helped weld the young society together. In addition to being a rancher, Wilson was a settled family man with a wife, two young sons, and a daughter. His children were listed as half-white on the census and the boys were reportedly half-brothers. Census records suggest that they were fathered by two different men, but their paternity remains unclear. In any case, Wilson adopted the two boys and raised them as his own. Upon Wilson's death in 1906, his sons George, also known as "Tweced," and James inherited the ranch. The Wilson brothers continued to pioneer ranching in Southern Nevada and the story of the Wilson Ranch remains a colorful part of the region's past.³⁰

The Wilson experience illustrates another important aspect of Southern Nevada's ranching and farming history: the relationship between white settlers and the local Paiutes. Although labor defined the primary source of contact between the two cultures, marriage and co-habitation reflected yet another. White males, living in isolated areas of the West often stepped outside dominant cultural prescriptions and married Indian women, thus giving rise to the term "squaw men" to denote this typically western practice. Several contributing factors led to co-habitation--legal or informal--including a scarcity of white women, a desire to recreate family life with a wife and children, the need for domestic labor and companionship, and altered circumstances brought on by isolated frontier conditions. Adapting to frontier conditions, settlers practiced new cultural norms. What was deemed inappropriate behavior according to Eastern mores often went unquestioned in the West. Acceptance of interracial marriage demonstrated the more liberal views generally held by

Westerners.³¹

This was especially true in rural Southern Nevada where several “squawmen” and their families established ranches and farms. At Pahrump, Givens and his nephew married Indian women. Spring Mountain Rancher James Wilson was married to Annie, a Nevada Paiute. Sexual mores were also more fluid than in the East. Indeed, before her marriage to Jack, Annie may have co-habited with George Anderson, his former partner, who later left the area. Anderson was reportedly the father of her two sons, James and George who were later adopted by Wilson. Near Searchlight at the Weaver Ranch, Weaver was married to a young Indian wife and had a daughter named Lucy. Ash Meadows rancher Stephen Lee was married to Elizabeth, a California Indian. “Squawmen” living in the Moapa Valley included John Boland and Frank Fisher, the sons of English immigrants. Both men established farms on the Moapa Indian Reservation where they raised their families. Boland and his wife Annie had three children and the Fishers had five. At Nelson near El Dorado Canyon, another English immigrant, Issac “Ike” Allcock, married two Paiute women. After his first wife Annie died, Allcock sent their five children to the Stewart Ranch school and later remarried another Paiute named Chic Maup.³²

These relationships, however, were not always pleasant. “Squawmen” often deserted their Indian wives after growing weary of desolate frontier conditions or after suffering financial setbacks. Some obtained formal divorces and remained in the area, thereby freeing their former partners to form other relationships. For example, Jacob Bauer, a seventy-five-year-old German immigrant, divorced his Paiute wife Lizzie. Their two sons, Harry and Albert along with Albert’s wife and baby daughter lived with Bauer on his St. Thomas ranch and worked as farm hands, while Lizzie moved to the Moapa Reservation with a Peruvian known as “Indian Frank” Ernst. Lizzie Bauer’s experience also reflected Indian attitudes about marriage, indicating that women could leave one husband for another and suffer no social stigma.³³

Paiutes, in addition to forging family ties through marriage, also provided valuable agricultural and domestic labor. As a result of such relationships Paiutes share a common history with Southern Nevada’s pioneer settlers. Yet Paiute contributions to the ranching

and farming frontier at the beginning of white settlement were not immediately apparent. The relationship between the two cultures was a tenuous one at best running the gamut between aggressive hostility and wariness to acceptance and friendship. When whites first arrived in the 1860s, the federal government established three army posts to protect isolated farms, ranches, and mining camps from “hostiles.” The army established garrisons at Fort Mojave, sixty miles below El Dorado Canyon, Camp El Dorado on Callville Bay, and temporarily, at the Gass Ranch.³⁴

However, unlike most western areas, local Indians were not a barrier to white settlement in Southern Nevada. Because the Southern Paiute bands were usually peaceful and nonviolent, most confrontational encounters came from renegades. The experiences of the Yount and Towner families in the 1870s proved that rebellious Paiutes could become potentially hostile and exhibit resentment against the whites but settlers ultimately traced the attack on the families to renegades identified as Panquitch and Horshootum.

This episode demonstrates that in addition to playing the role of business and family center, ranches also served as bastions of defiance. In 1877, news of the Towner-Yount encounter led to a meeting between local ranchers and miners at the Ivanpah mining camp to discuss the “Indian problem.” To safeguard the mining and ranching citizenry, these vigilantes made plans to put an end to further Indian trouble. They dispatched a posse to capture the culprits and took two members of the Paiute tribe hostage as insurance that justice would prevail. Indian trackers apprehended Panquitch at the Wilson Ranch where his captor proceeded to split his skull with an ax. The Wilson’s served as witnesses to the execution. The second culprit, Horshootum, was killed near Tybo, Nevada three hundred miles away where he was shot in the back. Proof was sent back to the Ivanpah Camp showing that both executions had been duly carried out as justice demanded. The Ivanpah citizens released the hostages and reported no further Indian attacks. Banding together to protect the community was a necessary condition of frontier life and ranchers often cooperated with local miners to control and punish marauding Indians.³⁵

The renegade attack against the Yount and Towner families was probably a reaction not only to the white intrusion but to the recently installed reservation system. In the 1870s

the federal government established the Moapa Indian Reservation fifty miles northeast of Las Vegas. This policy represented an additional threat to the Paiute way of life. For over six hundred years nomadic bands of Paiutes had claimed the entire Southern Nevada region as their homeland, roaming at will and exerting complete control over all water, land, and animal resources, without white interference. The first mineral strikes and the subsequent settlement of ranchers and farmers, followed by the reservation system, jeopardized Paiute autonomy. Tribesmen resisted their forced removal from ancestral homelands to confinement on the reservation. Indeed, as late as 1900, only a minority of Nevada's Indian population lived on reservations and never resided on them in any substantial number. This was also the case in Southern Nevada, where Paiutes continued to live on or near their original settlements.³⁶

White settlers called the Indian settlements or camps near homesteaded lands "colonies," a description, according to Elmer Rusco, apparently unique to Nevada. By 1880, Paiutes lived under white-dominated conditions, losing control of familiar resources as well as freedom of movement. In fact, their colonies often existed as enclaves on white ranches. The 1880 census indicates that in Southern Nevada Indian colonies were located at a majority of the ranches. For example, Towner's Indian Springs Ranch had a colony of fourteen, Bennett's Pahrump Valley Ranch had eleven members, and Ash Meadows listed forty-seven. The Moapa Valley maintained two Indian colonies and an Indian workers's camp. In addition to colonies, Paiutes lived near mining camps. Two Indians along with William Yuel, a thirty-five-year-old farmer from Missouri, lived at the El Dorado Indian Camp near Nelson. The two Paiutes, Mouse Charley and Indian Chick, often served as trackers for the sheriff's posse.³⁷

Paiutes also lived at local ranches as additional farm help. As white settlement became more permanent, the proximity of the Indian colonies to individual ranchlands, combined with the traditionally peaceful nature of tribal members, proved beneficial. It became common practice around white farming and ranching communities to utilize Paiute Indian labor. Indian males worked as ranch hands, farm laborers, and herders while females engaged in gardening or domestic duties, both for meager pay. Bennett, Towner,

and Yount employed Indian labor in a variety of jobs ranging from adobe brick-making to crop irrigators as did other local ranchers.

In Nevada as earlier on the Spanish missions in California, native Americans provided valuable farm labor. In the Las Vegas Valley Gass used Indian cowboys in the 1870s to tend his four hundred head of cattle and as farm harvestors to process and store pink Mexican beans in eighty-pound sacks. Indian farm hands also pruned the fruit orchards and hauled in hay. In fact, Chief Tecopa served as the Las Vegas Ranch foreman reflecting the degree of Paiute cooperation to the white capitalist system in Las Vegas. In spring, Paiute women winnowed grains in the field--wheat, barley, and oats--in Indian-made baskets. At the Las Vegas Ranch under the Stewart's and at the Kiel Ranch, Paiutes worked as skilled horsemen herding cattle. In the 1880s and 1890s Helen J. Stewart, a continuing champion of the Paiute tribe, hired Indians for more charitable purposes. She hoped that by employing the Paiutes, their diets might benefit from the fresh produce raised on the ranch. She also used Indian women for domestic labor, especially as laundresses.³⁸

Paiutes living on Indian colonies at St. Thomas and Bunkerville and at an Indian workers's camp at Rioville also provided agricultural and domestic labor for Moapa Valley ranchers and farmers while the Moapa Indian Reservation, located nearby, provided farm hands and cattle herders. Moapa Valley, forty miles northeast of Las Vegas, hosted the old Mormon cotton and farm hamlets of St. Joseph, St. Thomas, Rioville, Bunkerville, and the primary community of Overton. Mormon colonists originally founded the tri-river settlements in the 1860s as part of Brigham Young's plan to establish agricultural communities in the Muddy and Virgin River valleys and near the Colorado. By the 1870s, most of the Mormon families had returned to Utah after a new boundary survey moved them to Nevada and unsympathetic Lincoln County officials saddled them with an excessive tax bill. By the 1880s, due to an economic downturn in Utah as well as a collective memory of Southern Nevada's ideal farming conditions, many Mormon families returned to the area.³⁹

St. Joseph, founded by Robert Logan and his family in 1881 and one of the first sites to be reoccupied, became an established settlement of thirteen farmers and three

stockraisers. ⁴⁰ Area ranchers employed Paiute labor from the Indian colony at St.

Thomas. St. Thomas, located on the east bank of the Virgin River where it converged with the Muddy and the Colorado, was a small enclave of three farmers--two single males and the extended family of C.C. Byenk. Byenk, a young farmer of twenty-three, headed up a household which included his sixteen-year-old sister, her sixteen-year-old female companion, two servants--an Irish blacksmith and an Irish teamster--and a fifty-four-year old school teacher from Ireland who boarded with the family. A Paiute farm hand from the Indian colony also worked for Byenk as a stock herder. The Paiute Indian colony, located at the edge of the Byenk farm, was populated by twenty-six males and fourteen females.⁴¹

Across the Virgin River from St. Thomas was the small settlement of Rioville. In 1880 two farmers resided here--Frank McGuire, an Irish immigrant, and his family and the Daniel Bonelli family with their Irish servant Mr. Phelps. Bonelli nee Johan Daniel Bommeli was born in Switzerland where he converted to Mormonism. He later immigrated to the United States with his English-born wife Ann seeking religious freedom. Bonelli pioneered the settlement of Santa Clara, Utah before moving to Southern Nevada around 1869. The family settled first at St. Thomas and began farming along the Muddy River where Bonelli grew fruit trees, alfalfa, cotton, and a variety of produce. He also planted a vineyard using the grape cuttings he had obtained from France and Spain. Bonelli also gave some of his European stock, which included the finest varieties of wine, table, and raisin grapes, to O.D. Gass who planted the first vineyard in the Las Vegas Valley. In 1872, Bonelli established Rioville as a ferry crossing on the Colorado. In addition to the ferry, he farmed one hundred acres of hay and vegetables which he sold to mining camps, travelers, and local citizens. An Indian workers's camp nearby supplied farm hands and laborers to help run the ferry service. ⁴²

In 1877, Bishop Edward Bunker established Bunkerville, thirty miles north of Rioville, as a farming co-operative of family and friends. Bunker, a former member of the Mormon Battalion, along with his son, Edward, Jr., Lemuel Leavitt, and twenty-three other settlers, along with six head of cattle, commenced farming along the banks of the Virgin River. They lived in a Mormon-planned community under the new United Order system in

which land was owned and farmed in common and the group shared all responsibilities equally. By 1880, fifteen families were in residence but, due to internal strife, economic cooperation was abandoned. One dissatisfied member was Dudley Leavitt who left with his family to establish a farm at Mesquite, a fertile spot six miles north of Bunkerville.

Farming in Bunkerville proved profitable and the Mormons raised corn, sugar cane, and cotton as well as a number of fruit trees and seedless grapes. Water from the Virgin River furnished an ample supply for irrigation and the large mill at Washington, Utah, near St. George, processed the cotton. The settlement's Indian colony, outnumbering the Mormons with a population of fifty males and twenty-eight females, also provided a useful source of farm labor. Several locally prominent Mormon families farmed in this agricultural hamlet including the Bunkers, Leavitts, Abbotts, Earls, Lees, and others. In later years, dairy farming replaced crop-raising as Bunkerville's main agricultural activity. Mormon families made valuable contributions to the development of agriculture in the Moapa Valley. But the availability of cheap Paiute labor permitted large harvests by the Mormon settlers and well as those of ranchers and farmers throughout Southern Nevada.⁴³

By the 1890s, agriculture and ranching had become permanent fixtures on the landscape as Southern Nevada's economic potential had become self-evident. The area projected the whole spectrum in the expansion of agricultural development--from mining camps to cattle raising to remote ranches and farmlands. At the same time, women and children of nuclear and extended families had begun to impose a measure of stability on the emerging farming and ranching community. Indeed, 1880 census records with approximately seventeen women and forty children or more, demographically reflect this more settled environment. In addition, Southern Nevadans were beginning to realize that Paiute farm labor represented a valuable asset to their burgeoning agricultural economy.

Census data from the 1870s and 1880s indicates that Southern Nevada's agricultural base began in a modest way despite the regional stimulus provided by local mining camps. Isolation, compounded by a lack of railroads, kept farming mostly subsistent. Ranchers and farmers with few livestock, little or no machinery, and only a few acres of land raised enough food for themselves with a meager surplus. But they were

industrious and used these small food sales to purchase stores of sugar, coffee, tea, rice, salt, flour and other staples; canned foodstuff, and non-food items--farm equipment or kitchen wares. Farmers and ranchers sold vegetables, fruit, grain, freshly butchered beef, poultry, eggs, and butter. Butter, in particular, was an important source of farm income, selling in the 1870s for ten and fifteen cents per pound. Not surprisingly, Southern Nevada ranchers produced 4,420 pounds of butter, marketing a good portion of it. But large-scale commercial farming was impossible without major irrigation systems. ⁴⁴

Nevertheless, farm production in Southern Nevada increased as the nineteenth century progressed. In the 1860s, the average farm size of 617 acres reflected the trend toward cattle raising. By 1870, however, the average size had fallen to 201 acres, indicating an increase in crop-raising, but statistics reflected the impressive growth of the industry over pioneer days. Census bureau records show Lincoln County, encompassing Clark County until 1909, with 8097 acres of improved farm land. Farms were valued at \$66,980 and the total value of farm production including betterments and stock additions was \$68,709. The total value of all livestock including horses, mules and asses; milch cows, working oxen, sheep and swine was \$139,760. Crop production included winter wheat, barley, hay, Indian corn, Irish potatoes, wool, and butter. Lincoln County in 1880 listed ninety-six farms maintaining horses, cattle, dairy cows, and swine. Eight hundred sheep contributed three thousand pounds of wool to the spring clipping season. Grain production included barley, Indian corn, oats, and wheat. By 1882, alfalfa was grown extensively as the southern part of the county began to rival the output of Panaca, the Pahranaagat Valley, and other northern agricultural enclaves around the Pioche farming zone. ⁴⁵

Statistics indicate that Southern Nevada pioneers had established a substantial agricultural frontier in the area. Progress remained slow but steady. Four factors continued to stimulate agricultural efforts while others impeded further growth. Conditions beneficial to farming included the increase in mining activity at El Dorado Canyon, Searchlight, and Crescent to the south, and Goodsprings and Ivanpah to the southwest, providing ready markets for produce. Other advantages were cheap land easily acquired

under various land acts, a mild climate conducive to a long growing season, and ample water. Land taken up under the Homestead Act formed the basis for Southern Nevada's early agricultural development. As long as the population remained small, new farmers could still locate homesteads near water--springs, creeks, or small ponds.

Disadvantages, however, often outweighed the benefits. Although ranches and farms in the 1880s were within reasonable hauling distance of mining camp consumers, the lack of a railroad system limited the market range and the number of new settlers in the area. Unlike Washington, Oregon, and especially Southern California where the railroad played a major role as a colonizing agent, Southern Nevada had no trains to support development. Although an expanding population was vital to economic progress, the Las Vegas Valley was destined to wait another twenty-five years before the rails arrived.

Lack of water also limited farming in the desert. By the 1880s, it was becoming clear that further development was reaching its limits of expansion. Ranchers and farmers had already appropriated most of the land supported by well-established water supplies. Until the discovery and development of artesian wells as an alternative source of water in the twentieth century, irrigation depended upon the small streams, ponds, and flowing springs located around the valley.

The Moapa Valley settlements and the ranching and farming enclaves located on marginal lands dispersed throughout Southern Nevada symbolized a trend of the late nineteenth century. Between 1870 and 1900 the expansion of the ranching and farming frontier carried settlers in search of the Jeffersonian ideal to remote areas across the West--to prairie lands, to high benchlands, and into desert areas where water and free land were available albeit in limited quantities.

As seen, markets created by miners, soldiers, road and railroad crews drew "tillers of the soil" into the most desolate regions where scarce and expensive farm products were grown for the local trade. In Southern Nevada, mining attracted the region's first pioneer settlers who went on to establish ranching and farming in the Las Vegas Valley, Pahrump, Indian Springs, Ash Meadows, and other locales. In the Moapa Valley, the Mormons created their own agricultural Garden of Eden. When mining played out and military posts stood vacant, farmers and ranchers generally stayed on to settle permanent communities.

CHAPTER 3

THE DEVELOPMENT OF THE LAS VEGAS VALLEY: TRANSPORTATION, WATER, AND LAND, 1900-1915

As ranchers and farmers established stable homesteads and began raising families along with their crops, Las Vegas gradually emerged as the urban nucleus needed by the valley's rural inhabitants. Although agriculture encouraged the onset of town development and the elevation of Las Vegas to city status, it was linked to and sustained by a railroad as well as the development of an alternative water supply.

The creation of Las Vegas, however, remained contingent upon the arrival of trains connecting markets in Southern California with Utah and points East. Until 1905, Southern Nevada languished as a rural backwater community of scattered mining camps and isolated ranches. Despite mining's stimulus to agricultural development, Southern Nevada's continuing isolation, lack of transportation, limited water supply, and the boom-bust cycle of mining itself all combined to retard further development. The valley's agricultural outlook as well as the future of Las Vegas appeared uncertain, yet Southern Nevada, at the turn of the century, confidently bided its time sensing that progress would surely come to this small settlement in the desert.

By 1900, Southern Nevada ranchers and farmers had created pockets of agricultural communities in the Las Vegas Valley, Pahrump Valley, Moapa, and other spots in Southern Lincoln and Nye Counties with many of the original families still living on their pioneering homesteads. Agricultural operations remained mostly subsistent but economically stable although restricted to water sites. Lack of water continued to limit growth, and nowhere was this more apparent than in the Las Vegas Valley. The Kiel Ranch, located near several small springs flowing from a terrace, and the Stewart Ranch, irrigated by the Las Vegas

Springs, held dominion over the valley's water supply. As a result, the two ranches remained isolated and the area sparsely inhabited. Yet this apparently limited source of water, considered a hindrance to the agricultural settlement of the valley, soon became its salvation.

Fortunately, Las Vegas Creek contained enough of a flow to supply steam locomotives and support a railroad division town. The inauguration of railroad service through Las Vegas in 1905 effectively ended its isolation. This event, followed by the discovery of alternative water sources for irrigation, removed the obstacles to the valley's agricultural development. The government's enactment of liberal policies to acquire public lands only hastened the process. The railroad, however, was the catalyst spurring both urbanization and hinterland growth.

Southern Nevadans had pursued the Iron Horse for over two decades. As early as 1884, Lincoln County ranchers began to clamor for railroad transportation after the construction of the Atlantic and Pacific Railroad line to the California border at Needles. The arrival of the railroad bringing California produce and Kansas beef raised fears among Nevada ranchers about increasing competition for the El Dorado mining trade. In 1889, news circulated throughout the southern valleys about the prospect of a railroad line running from Crystal Springs down through the Pahranaagat Valley, a hundred miles away. The rumors prompted a land boom in Southern Nevada, but no tracks came.

However, the land boom created by the railroad rumor and reinforced by the 1885 State Land Act which provided for 640-acre tracts at \$1.25 per acre attracted out-of-state investors looking for speculative land deals as well as those seeking working ranch lands. Hiram Wiser, Mrs. Stewart's father, entered a thousand acres on the Muddy River for a cattle ranch while a group of San Francisco attorneys headed by Judge Kenneth Jackson claimed thirteen thousand acres under the Desert Land Act. The investors planned to engage in commercial farming at a later date. Prospective settlers claimed twenty-five thousand acres in an eight-month period. Between 1888 and the 1890s, Mrs. Stewart and Wiser bought large tracts of land.¹ Wiser claimed land under various family names and Mrs. Stewart acquired two claims originally filed by her sister, demonstrating that here, as

elsewhere in the West, women also played an active role in real estate development.

Optimism was renewed in 1899 after the Kiel and Stewart Ranches collected money for the sale of their property to the Oregon Short Line. Once again the deal fell through because the railroad backed out.² Finally in 1901, Montana Senator William A. Clark, scouting for railroad routes, was drawn to the water-rich Las Vegas Ranch: the latter held the key to Southern Nevada's economic revival and signified the beginning of a decisive merger with the railroad.

Though Las Vegas counted barely thirty residents in 1900, populations in Southern California, Utah, and nearby states were rising significantly. Montana copper magnate William Clark, along with the Union Pacific, recognized the need for a diagonal railroad connecting Los Angeles with Chicago via Salt Lake City and Ogden. He would require division points along the way to change crews and locomotives and, like Barstow, Las Vegas had the land, water, and strategic location along the intended route.

To build his town, he needed the Old Mormon Ranch. Therefore, in 1902, Clark purchased the 960-acre parcel, along with over six thousand acres of range land, and its important water rights from Helen J. Stewart for \$55,000. Mrs. Stewart retained the "Four Acre" family burial plot and four miner's inches of water³ or as needed from the creek for irrigation. Yet her ranching days were hardly over. A month later, she purchased another 280 acres of ranch land--forty acres located north of the "Four Acre" site and 240 acres to the south. Three years later, Mrs. Stewart, cognizant of real estate value in relation to railroad transportation, bought an additional 924 acres adjacent to her former Las Vegas Ranch holdings. In 1920, she sold the forty-acre ranch which included a spring and a reservoir to Mr. C.E. Barrett of Twin Falls, Idaho for \$2500 cash.⁴

The railroad, in addition to increasing the land value also contributed to population growth by serving as a colonizing agent to attract new settlers. The prospect of railroad transportation brought two thousand homeseekers into Las Vegas between 1903 and 1905. According to Fite, in many western states and territories railroad lines were often built ahead of any real settlement.⁵ The news of the railroad's imminent arrival brought

travelers into the valley via overland stage, on horseback and by wagon--the only transportation system linking Southern Nevada to the rest of the country. One arrival upon entering the valley in 1904 described the future townsite as "one big alfalfa field." ⁶

Like Carson City, Lovelock, and hundreds of other towns in the West, Las Vegas was made from a ranch. Newcomers arriving in 1904 found a frontier settlement of seven saloons, one restaurant, a general merchandise store, and a barber shop on the west side of the intended railroad line. In anticipation of the railroad's completion, plans for a butcher shop, a bakery, and two more saloons were forthcoming. Townsite lots, formally surveyed and marked off, awaited public sale set for a later date. However, law enforcement was noticeably absent. A Searchlight Bulletin reporter observed that in Las Vegas "lawlessness is conspicuous by its absence with the exception that chickens are getting scarce." Presumably laborers engaged as graders for Clark's railroad line and living in one of ten grading camps often quit without notice, walking off the job and heading back to California. As the deserters passed through outlying areas, contemporaries noted that chickens on the ranches grew "fewer and fewer." The creation of a town began to impose a crime problem for the surrounding ranch-areas. ⁷

Although railroad construction crews and surveyors had already started laying track towards Southern Nevada, a formal announcement designating Las Vegas as a division point was not made until 1904, and in January 1905, the first train rolled into town. The railroad's final project was to sell off nine hundred acres of land as town lots. Because the valley was a sparsely settled ranching district, not enough people were available to buy land. To attract prospective settlers, Clark's railroad launched its first promotional campaign as a colonizing agent for Las Vegas by placing advertisements in California newspapers publicly announcing the Las Vegas land auction. The May 11, 1905 edition of the Los Angeles Herald carried a full-page ad describing the upcoming sale of lots in the only official townsite of Las Vegas. The railroad also offered a special round-trip excursion rate for potential buyers--sixteen dollars from Los Angeles and twenty dollars from Salt Lake City. If the passenger bought property, the fare was refundable. ⁸

The land auction was a success with over half of the lots sold in the first two days.

With the completion of the San Pedro, Los Angeles, and Salt Lake Railroad line and the creation of the Clark-Las Vegas townsite on May 15, 1905, local townspeople renewed their efforts to develop agriculture as a permanent aspect of Southern Nevada's economy.

The railroad advanced Southern Nevada's agricultural possibilities--as a promoter of farming and ranching development, as a colonizing agent attracting potential farmers, and as a bridge to extend the marketing range of local commodities. According to historian Robert Athearn, "The railroad spawned the farmer's frontier" in the West.⁹ It transported tillers of the soil ever westward where thousands of acres of government land awaited. Farmers followed the iron horse knowing that it would allow them to participate in a cash-crop economy.

Although railroad transportation enhanced Southern Nevada's agricultural potential, further development hinged on the discovery of additional water. Until that time, the future expansion of the farming frontier remained tied to the growth of irrigation. Amended strategies to claim federal land incorporated under the 1894 Carey Act as well as the progressive policies defined by the Newlands Act supported western reclamation projects. At the turn of the century, changes in land policy and the promise of government funding to aid desert farmers incited the "irrigation mania." The irrigation movement revitalized agricultural efforts throughout the West and led to the development of small ranching operations as well as capitalist farming projects.

Although Southern Nevada did not directly benefit from the Newlands Act, the momentum of the reclamation movement bolstered by a modern transportation system motivated enterprising Las Vegans to locate alternative water supplies. Despite John Wesley Powell's irrigation survey in which he "depreciated artesian well schemes," a subterranean water supply seemed a likely source. In November 1905 local citizens hired a California well expert to test for underground water at the former Kiel Ranch, west of the townsite. The railroad offered to transport the well-boring machinery without charge and property owners interested in the results agreed to pay all other expenses. In 1906 a Las Vegas Age editorial, in support of water development projects, implored all valley land owners to sink wells wherever possible:

With an area of many thousand acres...with the growth

of fruit and forage on lands under irrigation...the expectation...is that with the application of water this valley will become one of the very loveliest in all the West. Why don't land owners who will profit from water development hasten to sink artesian wells? Mines cannot add to the beauty and the wealth of the community as the flowing of water over these fertile lands will surely do. ¹⁰

Editorial encouragement led to action and in March 1907 a second California drilling company successfully completed a test well, thus confirming the existence of an underground water supply. The tapping of three more demonstration wells under the auspices of the Vegas Artesian Water Syndicate offered further evidence. The flow of water created a mood of agrarian optimism, reassured Las Vegas farmsteaders, and heightened expectations for the valley's future. Well-drilling machinery, operated by the syndicate, soon dotted the landscape bringing in wells at different points throughout the valley. ¹¹

The town now began to support the valley's agricultural development. The Vegas Artesian Water Syndicate was a non-profit company organized by leading Las Vegas businessmen to develop water for irrigated agriculture. Probably to avoid further dependency on California well-contractors who took longer and to cut expenses, citizens and property owners formed their own co-op enterprise. Through co-operative effort, Las Vegas demonstrated that western-style characteristics typically described as independence, individualism, and self-sufficiency ran counter to the reality of farming in arid conditions. The need for irrigation required group effort and team-work. ¹²

Syndicate members invested time, money, and labor to develop artesian wells wherever feasible. Merchants like Ed Von Tobel and Jake Beckley funneled their urban commercial profits into developing their ranch parcels in Paradise Valley, south of town. Individual members also pooled their finances to purchase well-boring rigs. Drilling equipment operators included Laubenheimer, Beckley, and Swadener of Climax Drilling; Fox and McCullom, Inc.; Jefferson, Clayson, Ladd, and Fitch, et al; and Frank Matzdorf, part-owner of Star Drilling. Rig partners contracted out to drill wells for a nominal fee. ¹³

Other members included Judge M.S. Beal, "the father of the syndicate," who had

subscribed several hundred acres of land to finance the venture, and railroad land agent Walter Bracken. The Clark County Review credited the Vegas Artesian Water Syndicate for advancing “the era of artesian well-boring,” while the Las Vegas Times praised it for doing “more for Las Vegas than any other movement inaugurated so far for its enhancement.”¹⁴

The number of flowing wells located on ranches and farms throughout the valley indicated the success of artesian water development. In Paradise Valley, eight miles south of Las Vegas, the John F. Miller Ranch, with nine wells, had the largest number drilled on one property. Miller, owner of the Hotel Nevada, also made the first attempt to develop artesian water for domestic purposes in town. The Clark-Ronnow Ranch, in the “center of quite a settlement,” maintained six wells. The flow from E.A. Wixon’s well, in addition to irrigating his own property, was sufficient enough to lease to other ranchers who had not yet located their own. Albert L.J Clark, for example, leased well-water from Wixon until November 1909. His ranch utilized a natural reservoir sight to conserve well-water for emergency irrigation purposes.¹⁵

The Fox ranch, adjoining Wixon’s, as well as the Swadener, Laubenheimer, and James Passno ranches brought in two wells. In 1911, Passno drilled a third well and obtained the largest flow ever in Paradise Valley, surpassing the Evey well. The flow was strong enough to operate a wood saw powered by a water wheel.¹⁶

Most ranchers successfully located at least one well, including J.F. Evey. According to the Review, Evey’s Ranch was “famed as the sight of the biggest artesian gusher yet struck in the valley....The well is a promoter of enthusiasm....it flows, it boils and gushes and turbulently tumbles over the end of its pipe as if glad to escape from the bounds which have so long prevented it fulfilling its mission on earth.”¹⁷ Due to the number of wells located in this section, land owners considered Paradise Valley the heart of the artesian belt.

Outside the Paradise Valley limits, Mayor Peter Buol’s ranch one mile southwest of Las Vegas also contained a number of wells. The last well, drilled in 1912, was considered a record-breaker with well depths ranging from 350 to 400 feet. At least two ranchers reportedly uncapped an element other than water. The Age reported that Charles Connolly

brought up copper ore on his property northwest of town while drill operators on Judge Peter Somers Ranch near Indian Springs reached a heavy flow of natural gas. Both rumors proved false. J.G. Barnsley's ranch five miles south of town and F.W. Eglington's three miles to the northwest also successfully brought in wells. These three ranches situated outside the limits of Paradise Valley expanded the range of the known artesian belt. Further evidence was provided after the Stewart Ranch uncapped two wells and George Crouse, a former lessee of the Kiel Ranch, located one. The well on the Crouse farm was the first important well drilled since the experimental test shaft. The new discoveries suggested that the underground reservoir extended southward and was ten miles wide.¹⁸

Townspeople now concluded that a vast underground water supply flowed just beneath the valley floor. Besides well-water, some ranchers including James Ladd, Allan Bishop, and Charles Redmon used surface water for irrigation. Surface water, located at depths ranging from ten to seventy feet, was obtained by means of pumping plants. Pump irrigation demonstrated that every acre of tillable ground lying outside the artesian belt could be watered. Redmon viewed cheap pumping water as the solution for ranchers unable to secure artesian flows. He demonstrated on his ranch southwest of town that if a twelve-horsepower engine used "tops" instead of gasoline, a less refined form of fuel, the expense of pumping for water was greatly reduced. Land owners, thus encouraged, eagerly set about locating water on ranches and farms throughout Southern Nevada. Of the 146 farms established throughout the county by 1910, all but one were irrigated.¹⁹

Clark County assessor Steven R. Whitehead provided information on the primary methods of obtaining water and the cost involved. When water for irrigation was not supplied by surface pumping or through well-drilling, it could be taken from living streams. These included the Colorado, Muddy, and Virgin Rivers, small creeks, and other limited sources. The cost for drilling an artesian well ran ten dollars an acre when water was quickly located (as at the Eglington well west of town) or the cost of complete failure.

In general, the standard cost was \$550 to \$750 at an average of \$1.50 per foot for the first one hundred feet. If over three hundred feet, the price was increased by fifty cents a foot. In some cases, a \$1000 was the amount needed to irrigate thirty acres at thirty

dollars per acre. Philip Steinman's efforts to reach a good flow of well-water, although successful, exhausted his thousand dollar savings. In order to pay the expenses of improving his ranch, he had to work as a farm laborer at nearby ranches. ²⁰

When pumping for surface water, the cost was ten to fifty dollars an acre. For a pumping plant capable of producing up to eighty miners's inches of water, the installation fee was a thousand dollars. Homesteaders having access to living streams, received water rights either through purchase, irrigated pumping, or dam-building. The estimated cost for a pumping plant ranged from fifteen dollars per acre on Virgin River lands and one hundred dollars an acre for Muddy River rights. ²¹

According to Whitehead, government reclamation reports indicated that water was cheaper to develop in Clark County than in Arizona, Colorado, Idaho, Montana, Washington, Oregon, or Nebraska. Furthermore, due to the valley's altitude and "sun-kissed" climate, the land was also more valuable. Whitehead dismissed those who complained that land without water was worthless, because settlers had repeatedly demonstrated that water was available, at least for pumping, at a cost not exceeding fifty dollars per acre. He argued that the nominal amount spent on water along with the variety of crops produced, of exceptional flavor, means that "the lands are worth something and in my mind a great deal more than many people seem to realize."²²

Newspaper columnists also continued to support efforts to develop underground water. Several offered advice especially to drillers experiencing poor results and "having symptoms of a faint heart" after sinking deeper and deeper without tapping into "aqua pura." A Review news story intended to provide encouragement and serve as a "bracer to keep 'em going," reported on a California well project that had already drilled to a depth of eight hundred feet without reaching water. ²³

Although most ranchers remained confident, others experienced moments of doubt. Paradise Valley rancher J.F. Evey, growing discouraged and fearful of losing his money, asked Fox and Mc Cullom to discontinue their efforts after their rig struck hardpan. The well-boring outfit continued turning, finally puncturing through the bedrock and plunging into subterranean water. The partners announced the news to the rural neighborhood with a

shrill screech from the rig's whistle, blasting it until the steam ran out. Fox and McCullom estimated the flow at one hundred inches, making it the valley's best to date. Evey had already reconciled himself to installing an expensive pumping plant to raise the water. The importance of new wells to the fledgling town was clearly indicated by the comment of one Las Vegas property owner who, after viewing the "new gusher," exclaimed that, "this strike adds five percent to the valuation of all town and outlying property. Anyhow that is the way I'll look at it if anyone talks 'buy' to me." ²⁴

Another resident, upon observing the transformation of former desert lands into newly cultivated fields irrigated with artesian water, reminded everyone that he had predicted this in 1905. At that time he observed that "surely the great Vegas Valley is not one of the waste places of the earth....Within a few years this so-called desert will be made to bloom and blossom with orchards, fields of growing grain, and the homes of happy families." He recalled that upon his arrival Las Vegas was only a "rough rag and board town" with "one small stream of water fighting its way through the sagebrush." This sight had inspired his vision of Las Vegas as a "garden spot" in the desert. ²⁵

Captain James Ladd, a "pioneer tiller of the soil," also envisioned the valley's agrarian potential. A frontiersman who prospected in the Alaskan wilderness before coming to Las Vegas, he established Ladd's Hotel in 1904 to accommodate railroad arrivals gathering for the land auction at the future townsite. Ladd reportedly operated "without fear or favor the only first-class hotel south of the hot-air mining district, known as the Northern of Las Vegas." ²⁶

By 1906, Ladd left the hotel business, filed a homestead claim on 160 acres of land supplied by spring-fed surface water, and took up farming. This was the first property placed under cultivation in Las Vegas with the exception of the old ranches. The Age, upon observing that Ladd had planted 250 fruit trees and a grape vineyard, brought his determined efforts to the attention of its readers and advised them that hundreds of acres of land near the Ladd Farm, similar in quality and irrigated by natural springs, was available. However, after six months of working the land, Ladd discovered that the water supply was inadequate for his crops. He leased his ranch to Mr. and Mrs. C.F. Hubler who engaged in

poultry-raising and maintained four hundred chickens to supply the local market. Hubler's future plans included the installation of incubators and the purchase of brooders in order to raise chickens on a more extensive scale.

In 1909 Hubler died, leaving his widow Mary unable to manage the chicken ranch on her own. As a result, Ladd moved back. Encouraged by the valley's successful development of artesian water and the land's increasing evidence of burgeoning productivity, he located his own well and resumed farming. Ladd's new well showed a ten-inch flow and, in order to store the excess, he constructed a reservoir. The reservoir's twelve-hundred-foot flume conducted water to a ten-acre alfalfa patch and a number of newly planted fruit trees. The Review predicted that the water now obtainable from Ladd's well would bring his land under cultivation "with every prospect of success."²⁷

The discovery of a proven artesian belt running beneath the valley floor and the interest it generated was a microcosm of the response to the reclamation movement occurring throughout Nevada and the West. Interested onlookers credited the Las Vegas Valley with its successful quest for water and developing desert agriculture with setting the pace for all of Nevada. Southern Nevadans, continuing to view water as "the key to unlock the wealth of the soil," proved that with artesian water they could make the desert bloom. Nevada newspaper editorials heralded the discovery of subterranean water as a resource to be tapped "to the enrichment of the tiller of the soil and...to the material improvement of economic conditions of the state." Townspeople and rural citizens set about reclaiming the desert and confirmed that when enriched with water, the "call of the soil is insistent and loud."²⁸ Farmers and ranchers answered the "call" and headed west to stake their own desert claims.

Along with water, federal land policies adapted to arid and semi-arid conditions continued to play a key role in shaping Southern Nevada's agricultural future. Amended government legislation to dispose of the federal domain facilitated the ownership of western lands. The prospect of land ownership in Nevada prompted Horace Greeley to remark that "if Uncle Sam should ever sell that tract for one percent per acre, he will swindle the purchaser outrageously."²⁹ Contrary to Greeley's opinion, the government's enactment of

more liberal land laws combined with the irrigation movement to nearly double Nevada's population between 1900 and 1910. Town boosters advised prospective farmers that a small amount of fertile public land within the artesian limits as well as larger tracts of better land beyond it, and "thousands of acres of the very best land in 'unproven territory' " was still available in the Las Vegas Valley. Once again, the city of Las Vegas promoted the farming of surrounding lands. In 1912, the chamber of commerce provided a plat showing vacant and entered land claims around the valley. As a supplement, civil engineer John T. McWilliams drew up a blue print map of Las Vegas showing the location of artesian wells and sold copies for one dollar each.³⁰

In 1910, the price of good land located within ten miles of Las Vegas ran from five to one hundred dollars an acre depending on the distance from town and the owner's interest in selling. The Homestead Act, however, continued to serve as the basis for land ownership in Southern Nevada after the discovery of an alternative water supply. According to Athearn, more land was taken up under the Homestead Act during the first two decades of the twentieth century than had been claimed in the entire nineteenth century.³¹ After the 1862 Homestead Act sometimes proved unsuitable for acquiring land in the arid regions without a dependable water supply, Congress offered remedies in the form of modified land policies.³²

Congress altered the original Desert Land Law in 1891, reducing the original acreage from 640 to 320 acres, costing twenty-five cents per acre at time of filing and one dollar an acre at time of final proof. The entryman was to provide a dollar's worth of work per acre for four years and was not required to live on the land. A desert land entry could be made by any American citizen. Only land incapable of producing yearly crops at a profit without artificial irrigation was subject to desert land entries. Nevada statutes also required desert land applicants to file a notice of application for permission to appropriate public waters and provide a map prepared by a licensed engineer showing the type of irrigation being used.³⁴

Under new Homestead laws, certain restrictions barred those who had previously applied for homesteading rights or had acquired 320 acres under existing agricultural laws

or owned 160 acres in another state or territory from new entries. Other limitations stipulated that only land located in reclamation projects was subject to homestead laws and that less than 160 acres but not less than 40 could be entered.³⁵ Claims filed under its provisions ran for three years and a settler needed to reside on the land continuously for seven months out of each year and make improvements. If the homesteader chose to live on the land continuously for fourteen months, they could gain title by paying the government \$1.25 an acre in cash. This was known as a commutation of a homestead. Homesteaders often commuted their claims for cash and sold the land as relinquishments. Although generally illegal, this was a common real estate transaction.

Under relinquishment the original claimant concluded a private arrangement with a newcomer who paid him a sum of money for his homestead. In 1912, Las Vegas sold relinquishments on homesteads and desert claims for four and five dollars per acre. The original claim, however, still belonged to the government and could not be sold to a third party. The commutation privilege in the Homestead Act permitted small speculators and sometimes single women to make a profit by filing the initial land entry and later selling it to someone wanting to buy a farm through the relinquishment method.³⁶

Urban residents like Jacob Beckley, Leon Rockwell, and Robert Dillon engaged in relinquishment. Beckley although listed on the 1910 census as a lumberman was a Paradise Valley rancher. He sold two ranches through relinquishment in 1911 for \$1600 each. The second ranch of 120 acres was sold to the Porter Brothers of Rhyolite and came with a small cabin, a partially cultivated field, and a supply of water provided by a small spring and an artesian well. Due to various improvements made on the property, Beckley made a profit on the deal.³⁷ Leon Rockwell listing his occupation as a telephone man and inspector bought forty acres in 1909 and spent between eight hundred and nine hundred dollars proving it up as a desert claim. He relinquished the land for fifteen thousand dollars to a party of oil-drilling prospectors. Rockwell also took up a 160-acre homestead east of town. One Las Vegas observed that "if Leon farms as well as he keeps your telephone in order, the future of the valley is assured."³⁸

The city newspaper provided a convenient forum for selling rural real estate. In

1911 Robert Dillon, a gold miner, placed a notice in the Review advertising that he would relinquish his 160-acre homestead with fine sandy soil and a flowing well for ten dollars per acre. Although Beckley went on to develop another ranching enterprise in Paradise Valley, Rockwell and Dillon apparently viewed their homesteads as investments. Not all commuted homesteads, however, were for speculative purposes. Many farmers paid for their land before the five-year period to gain title and use the farm as security for credit. Other settlers in order to expand their farmlands purchased relinquishments on quarter sections (forty acres) nearby.³⁹

In addition to filing homestead claims through commutation and relinquishment or under desert entries, land was obtainable under the Timber and Stone Act of 1878. Government land with valuable timber and stone resources was available at \$2.50 per acre for 160 acres of non-agricultural land. Any timber or stone found on the land was for the exclusive use of claimants for personal construction projects or as fuel and not to be sold.⁴⁰

Unscrupulous lumbermen and other special interest groups, however, often took advantage of the loopholes found in the provisions of the law offering opportunities for the exploitation of public lands. Such episodes even occurred in desert regions. In 1905, Southern Nevadans became alarmed over railroad interest in developing 600,000 acres of public land bordering Mt. Charleston. W. H. Martin, a representative for the Union Pacific and Central Pacific Railroad, visited Las Vegas to investigate the area's agricultural potential. He reported that the soil was rich in plant food and well-adapted to the raising of profitable crops and the water abundant and easily secured. Martin intimated that the railroad companies, with the intention of "securing enlarged traffic," might be interested in developing this large tract of land and advertising the advantages of this section to homeseekers. Although Las Vegas expressed alarm over railroad interest in acquiring large tracts of timberlands, on a more positive note, the railroads later proved an invaluable ally in promoting Southern Nevada's agricultural development.⁴¹

In August 1907, however, Las Vegas residents voiced their objections regarding Charleston National Forest land being acquired by the railroad or any other speculative interest under the Timber and Stone Act. A petition prepared by Judge M.S. Beal and

circulated among the citizenry stated that “the allowing by the interior department of the entries of timber land being applied for in the Charleston National Forest Reserve by persons and corporations and now pending will take the heart of this forest and will be of great and irreparable injury to the local citizen.”

Concerned Southern Nevadans viewed the removal of timber from the Charleston reserve as detrimental to the conservation of water. They argued that, because of timber scarcity in the surrounding areas, water preservation was even more vital. Timber cutting on the mountain was depleting the region’s water resources so crucial to agricultural development. Beal pointed out that the “preservation of the water on this reserve is very important to our citizens and settlers whom we are trying to interest in this locality.” The petition outlined the Las Vegas Valley’s agricultural progress achieved through the independent efforts of self-sufficient and determined Southern Nevadans and stated that:

growing in profusion on lands where watered...perfect apples, peaches, pears, grapes, almonds, figs, melons, and all kinds of vegetables...oats, alfalfa.... Without outside help we have sunk a well flowing thirty thousand gallons of water per day...capable of irrigating two hundred acres of land or more.... Other wells are being sunk and lands brought under cultivation as fast as possible.

Judge Beal further emphasized Southern Nevada’s desert climate and the importance of the snow melt from Mt. Charleston’s peak as a source of water to replenish underground supplies. Timber stands remained essential to the conservation of the watershed run-off. Beal concluded by reiterating Las Vegas’s plea to withdraw forest reserve timber from sale except for use in the adjacent territory. ⁴²

The efforts of Las Vegas Valley’s citizens to preserve Mt. Charleston timber and its watershed reflected the activism of the larger conservation movement in the West during the Progressive Era. Such efforts led to the creation of the national forest system and, in 1908, the National Conservation Commission. The organization’s purpose was to survey natural resources of minerals, water, forests, and soil to determine whether areas should remain open for exploitation or set aside as wilderness. Within five years or less, the federal government designated the Charleston and Sheep Mountain Ranges west and northwest of Las Vegas as the Moapa National Forest Timber Reserve. It later became part of the

of the Toiyabe National Forest as a Nevada wilderness area. Las Vegans, with their pleas answered, commenced laying out farms and ranches and promoting the valley's agricultural assets. ⁴³

While Southern Nevadans considered railroad interest in developing public lands under the Timber and Stone Act a threat to the region's burgeoning agricultural development, they encouraged farming enterprises under the Carey Act. Federal interest in Nevada's southern region began with ranching and farming as a result of the national movement to reclaim the arid West. The Carey Act, like the Newlands Reclamation Act of 1902, was part of the federal effort to bring more acreage in the West under irrigated cultivation. In 1887, Nevada Senator William Stewart, upon his reelection to the United States Senate, initiated the state's fight to enact legislation supporting the irrigation of desert lands along with Francis Newlands, a rising star on Nevada's political stage. In 1891 and 1893 Newlands, as a reclamation advocate, served as a National Irrigation Congress delegate, where he lobbied for national government assistance with irrigation projects. Such efforts resulted in the passage of the 1894 Carey Act.

Carey Act provisions authorized the Secretary of the Interior to donate a million acres to each of the ten arid states under the condition that they assume the responsibility of irrigating, cultivating, and settling the land. Nevada, as one of the ten states, obtained the right to dispose of the land to individual farmers in 160-acre tracts. Grantees needed to bring twenty acres or more of each quarter section under cultivation within ten years. In order to develop water for agriculture, the state would contract a private construction company to build irrigation works and the company would receive its profits from the sale of the water rights. However, in 1894, Nevada was financially incapable of Carey Act participation.

In 1897, in order to promote the growth of mining and agriculture, develop irrigation works, and create additional taxable property, Nevada passed an amended Carey Act. The state, operating through the office of the State Land Register, served as the agent for those who filed claims. Due to the expense of water development in the arid regions, the average settler having limited capital was unable to finance the irrigation costs.

Therefore, the Carey Act encouraged financially stable companies with sufficient capital to develop water to file claims on large tracts of land in Southern Nevada. Although Carey opponents argued that the act promoted capitalist farming and discouraged family operations, this was not its intent.

Carey Act provisions required claimants to locate water supplies and build irrigation works on given tracts of land and sell the water rights to farmers who purchased acreage from the state. Clark County needed the financial assistance provided by Carey applicants to bring additional acreage under irrigation and to improve its agricultural potential. Moreover, land taken up for reclamation projects created additional taxable property. According to Fite, western pioneer counties raised revenue by taxing land and real property. However, because frontier settlers owned few personal belongings and homesteaded land was not taxable after the final entry, funds were limited. The state needed the money generated by Carey projects to care for the destitute when county funds ran out. Clark County, however, did not have an indigent funding problem in 1910. ⁴⁴

Southern Nevadans considered Carey Act projects a practical means of developing agricultural lands and began to lobby for government support. In September 1907 Judge M.S. Beal, Secretary of the Las Vegas Promotion Society, the first official organization of town boosters, wrote to the United States Geological Survey Bureau in order to direct the government's attention to the region's agricultural resources and engage their interest in developing reclamation projects in the area. His letter described Southern Nevada's dependable artesian water supply, reclamation possibilities, and the work of the Vegas Artesian Water Syndicate. The Promotion Society's primary purpose was to advertise the Las Vegas Valley's natural resources and the economic opportunities found in agriculture. This goal was continued under the auspices of the Las Vegas Chamber of Commerce which replaced the Society in 1910. ⁴⁵

Promotional and lobbying efforts begun by the Las Vegas Promotion Society and continued by the Chamber of Commerce as well as Nevada politicians and other reclamation advocates brought results. Southern Nevada hosted several Carey Act projects financed by eastern capitalists, mid-western investors, and local railroad men. In October

1909, State Engineer Frank Nicholas arrived in Las Vegas to investigate two Carey Act applications--one from the Amargosa Land and Irrigation Company applying for 18,000 acres in the Amargosa Desert, 75 miles northwest of Las Vegas, and the other from a group of eastern capitalists applying for 200,000 acres in the Pahrump Valley. In addition, five others were pending, including applications from the Las Vegas Irrigated Fruitlands Company, filing on 8857 acres four miles southwest of town, and Judge Peter Somers requesting 10,000 acres near Indian Springs. Nevada, in 1910, had eleven Carey Act applicants awaiting approval with seven located in Southern Nevada--25,000 acres in the Las Vegas Valley with a total of 265,000 acres state-wide. State Engineer Nicholas, after his investigation of the proposed land and water projects under the Carey Act predicted that "Clark County is to be the greatest agricultural section of the state...and in the not distant future, instead of advertising to bring people in we shall have to devise ways and means to keep them out." ⁴⁶

In addition to the state engineer's investigation of proposed Carey Act development projects under the direction of the Bureau of Industry, Agriculture, and Irrigation, federal agents from the government land office as well as the Interior Department also conducted visual inspections. The government's policy was supportive of reclamation but vigilant regarding fraudulent land schemes. Although most Carey Act claims in Southern Nevada were legitimate, in 1914, the Commission of Industry, Agriculture, and Irrigation uncovered at least one case of fraud in the Moapa area. The agency reported to the federal government's General Land Office that certain companies "well-known" in Las Vegas and operating out of Los Angeles had disposed of government land near Moapa using fraudulent contracts. As a result, several settlers were bilked out of their money. Because litigation was pending, no names were mentioned. The Review lamented the fact that "their manipulations have materially injured the reputation of this section and it is a source of satisfaction that they have been apprehended and will be made to pay restitution and some penalty." ⁴⁷ Fraudulent land schemes, although uncommon, did occur and, for this reason, Interior Department agents upon receiving the application conducted on-site investigations regarding the availability of water supplies and the location of the land before setting aside

acreage for Carey Act claimants.

Applicants requesting land under the Carey Act were required to follow several steps for proper completion. The claimant--a corporation or an individual--first applied for a water right from the office of the state engineer, followed by a request for a one-year temporary withdrawal of the land in order to survey, map, and make plats as required by the Interior Department, and, upon completion of the survey, applied for full segregation of the land. Upon receiving notification of the Interior Department's approval, the applicant was then obliged to execute a contract with the state within three months outlining the details associated with the construction of irrigation works. Within a year one-tenth must be completed, with the remainder within three years after date of contract. At that time, the state would subdivide and sell the land for between fifty cents and a dollar per acre, thus providing homes for farmers and their families. The state deposited all proceeds into its treasury where the funds were earmarked exclusively for desert reclamation.⁴⁸

The first applicant to meet the stringent Carey Act requirements and receive a favorable report from the investigating field agent as well as the first appropriation approved in Nevada was the Amargosa Land and Irrigation Company. The Amargosa Company, a corporation owned by several prominent Goldfield men, including George Wingfield, with business interests in mining, railroads, and land development, expected to receive title to eighteen thousand acres of land advantageously located between the lines of the Las Vegas and Tonopah and Tonopah and Tidewater Railroads. They planned to develop water for irrigation by pumping water from the Amargosa River and the Ash Meadows Sink. The Amargosa Company was also considering the development of an additional 57,000 acres near the Pahrump Ranch as a joint venture with the Tonopah and Tidewater, the Santa Fe, and the Clark railroad interests. Due to the momentum of the reclamation movement, the railroads were beginning to realize that vast tracts of land in the West, once perceived as a monotonous sight viewed from the windows of a passing train, represented an untapped source of revenue--as an investment in land development for agricultural purposes and a means to increase the flow of passenger and freight traffic.

In order to demonstrate the feasibility of desert agriculture to the railroad

representatives, a party of Goldfield men from the Amargosa Company along with the assistant general manager of the Tonopah and Tidewater Railroad, and the land agent and traffic manager for the Santa Fe, toured the Pahrump Valley Ranch and surrounding farms. The land agent for the Santa Fe remarked that Pahrump, in its undeveloped state, was a paradise in comparison to California's Imperial Valley five years ago. Enlisting the railroad's assistance in attracting attention to Southern Nevada's agricultural possibilities was one of many ploys used by town boosters with an interest in the region's economic well-being.

Outside money interests also took notice of Southern Nevada's burgeoning agricultural potential and applied for large tracts of land. In 1910, the state surveyor general received a second application for land in the Pahrump Valley after Eastern capitalists filed on 200,000 acres under the Carey Act. As a result of the Carey Act and the surge of interest in agricultural lands in this section, Pahrump residents touted their valley as a natural tributary to the Las Vegas Valley and began to clamor for an extension of their boundary into Clark County. The movement, however, was short-lived and Pahrump remained in Nye County. The United States Surveyor General, after receiving requests for thousands of acres in the Pahrump Valley as well as applications for several thousand acres in Elko County, announced that the amount of land being set aside for Carey Act projects would soon exhaust Nevada's original allotment of a million acres. He predicted that "this big amount of land will soon be sold to investors, who will build irrigation projects and make the desert bloom." By 1911, the demand for Nevada lands was so great that Republican Senator George Nixon proposed an amendment to the Carey Act granting the release of a million more acres of public land to the state.⁴⁹

Government release of additional land under the new Carey amendment proved beneficial to the Las Vegas Valley's growing farm economy after Kansas City investors of ample means, doing business as the Las Vegas Irrigated Fruit Lands Company, announced plans to develop ten thousand acres of land five miles south of town. After posting a \$40,000 government bond, the company obtained approval from the Interior Department to reclaim land by means of artesian well irrigation instead of surface pumping. This project,

located within the known artesian belt, was the first approved by the government allowing the use of well-water for irrigation and valley land owners eagerly awaited the results. The company hired a former assistant engineer for the state to take charge of water development and awarded the drilling contract to Jake Beckley and William Laubenheimer. By 1913, they had successfully located five wells. Both the Age and the Review reacted favorably to the Las Vegas Irrigated Fruitlands project and viewed it as another important factor in the agricultural development of the valley. The Review, consistently supportive of the Carey Act, regarded it as “a measure of the greatest practical beneficence to states like Nevada...” who required capital to construct expensive irrigation works on large parcels of desert land. Because the cost of reclaiming even small tracts was often beyond the financial means of most homesteaders, the Carey Act served as an impetus to settlement.⁵⁰

Local newspapers, reflecting the views held by most town boosters, considered the development of land by Carey Act claimants a boon to the growth of Southern Nevada’s agricultural economy as well as a potential means for increasing the size of the farming and ranching population. The Carey Act, however, like the Timber and Stone Act, also attracted its share of criticism.

Although most Las Vegans were of the opinion that the Carey Act represented the quickest way to achieve beneficial results, many opposed its monopolistic intent. In 1910, in order to discuss the merits of the Carey Act as well as its drawbacks, State Engineer Frank Nicholas invited all interested Las Vegans to a meeting at Miller’s Nevada Hotel. William Thomas, an attorney practicing mining and corporate law, and Richard Busteed, a specialist in general law, argued against the Carey Act. They claimed that it constituted a monopoly because claimants could withdraw public lands from the general population for a period of three years while locating water, thus effectively preventing other homesteaders from claiming small tracts of land for agricultural development. Another participant refuted this claim and argued that “those complaining that wealthy corporations are engaging in a land-grab and shutting out the small farmer of modest means are talking eleven-tenths nonsense.”

Cold Creek Rancher Perry Smith, representing the views of the small homesteader,

also disagreed with the lawyers. As a supporter of the Carey Act, Smith argued that as a farmer, he was familiar with the expense and difficulties involved in developing water on unproven tracts of land. Moreover, due to his recent involvement as a defendant in a pending law suite regarding water appropriation rights, he was even more supportive of Carey projects. Smith's credibility regarding water problems ended the discussion on a positive note and, according to the Review, "the meeting closed without any fatalities or any new land being placed under cultivation." ⁵¹

Although opponents of the Carey Act criticized it for its monopolistic leanings, it remained a practical way to develop water for irrigation in the arid regions where lack of funding remained a chronic problem. Consensus among Southern Nevadans reflected overwhelming support for land appropriations under the Carey Act and they suggested that anyone wanting to accept the challenge of transforming the desert into irrigated farmlands should be given that opportunity. Commissioner Charles Norcross from the Bureau of Industry, Agriculture, and Irrigation agreed. As head of the agency in charge of promoting Nevada's economic development, including agriculture, as well as the state's Carey Act enterprises, Norcross was a confirmed reclamation advocate. In 1911, after the bureau's publication of Agricultural Nevada, a colorful pamphlet containing "artistically illustrated literature" designed to attract colonists, the Review solicited Norcross' opinion on the best way to promote agriculture and irrigation. Although Norcross approved the use of pamphleteering as a promotional tool, he believed that Nevada needed to first develop its water resources before inviting settlement. In order to accomplish this task, Norcross promoted Carey Act enterprises as a viable means to acquire the capital needed to construct irrigation works. He argued that:

it is all very well to know that we have 20,000,000 acres of unappropriated lands possessing fertile soil, a healthful and exhilarating climate, and good markets but without water the land won't grow crops and 77 cases out of 100 the intending settler has neither the means nor the patience to go out upon the desert and attempt to conquer the double problem of reclaiming the land and providing from some unknown source the water with which to irrigate it. ⁵²

Norcross, although in charge of an agency established by the state to promote colonization and economic development, suggested that Nevada needed funding for irrigation and experienced engineers to carry out the work first and should expend its efforts towards attracting Carey Act enterprises rather than settlers. The development of water and land through Carey projects over a five-year period would be a more effective means of colonizing the state than twenty year's worth of campaigning to attract settlers to a state without reclamation prospects. ⁵³

Despite the efforts of Carey Act supporters and town boosters to attract more investors with sufficient capital to subsidize large-scale farming projects, their attempts proved futile. Due to a variety of reasons including diminishing funds, technicalities within Carey provisions or Nevada laws, lack of progress in locating water, or some other unknown factor--those who answered the challenge eventually failed. In any case, the Carey Act represented an important piece of legislation in recognizing that the expansion of irrigation depended on government support. Although the well-intentioned Carey Act proved unsuccessful, Southern Nevadans remained hopeful. Pioneering settlers continued on with their individual efforts to develop farmland and town boosters devised more creative ways to promote the area's agricultural possibilities. ⁵⁴

Southern Nevada's agrarian future appeared promising with the inauguration of railroad service, the discovery of additional water supplies, the enactment of public land reforms, and the various attempts to develop capitalist farming projects on large tracts of land around the valley. In particular, the creation of Las Vegas as a town in 1905 invigorated farming in the valley as a whole as urban promoters tried to diversify the community's transportation-based economy with a strong agricultural sector. The determination of settlers eager to build a town with an economy based on agriculture provided further encouragement and their efforts persevered for the next two decades.

CHAPTER 4

RANCH BUILDING IN THE LAS VEGAS VALLEY, 1905-1915

The development of ranching and farming ventures throughout the Las Vegas Valley as well as the renewed efforts taking place in the older agricultural areas invigorated the Southern Nevada landscape. Between 1905 and 1915, Las Vegas experienced a heady period of community growth reflected by a population increase, town-building, and a number of flourishing agricultural enterprises in the area.

Valley ranchers and farmers comprised many of Las Vegas's earliest pioneers who arrived with the train--the usual harbinger of economic development for nascent frontier communities. The incentives for moving West were many, including economic opportunities, health reasons, curiosity over promotional claims regarding specific locales or a last chance to claim a section of arable land--for speculation or for farming. Some came for all of these reasons. Many citizens, after establishing an economic foothold and community standing, became businessmen-farmers actively engaged in developing agriculture as small ranch holders or through participation in capitalistic ventures. They also became avid boosters who aggressively promoted the practice of desert farming.

In general, the individuals who pioneered the agricultural and business development of Las Vegas shared similar traits with the majority of settlers moving West during the Progressive era. According to historian Gerald D. Nash, migrants moving westward in 1905, unlike those who came earlier, were a more affluent middle-class group. Some were farmers from the rural Mid-West and others were from urban areas where they worked in offices, banks, and stores. Upon their arrival, migrants brought "cunning, shrewdness, and calculation" and became boosters and go-getters "giving western society much of its forward thrust during this period."¹ Many of Southern Nevada's pioneer ranchers typified this group. In particular, businessmen-farmers remained unstinting in their efforts to

develop an agricultural landscape--from preparing the land to crop experimentation and livestock raising. And as their successes became obvious, the need to promote farming opportunities became an active calling.

Throughout the valley farsighted businessmen and skilled workers from a variety of occupations, exemplifying the new western migrant, turned to ranching and farming with remarkable success alongside seasoned farmers. In addition to agricultural endeavors, many homesteaders owned and operated businesses in town, worked for the railroad or the mines, ran hotels and saloons, engaged in professional occupations or civic duties, followed skilled trades, and even labored as farm hands for other ranchers. Others, however, reserved their time strictly for agricultural pursuits. Businessmen-farmers formed partnerships, hired managers and caretakers, leased their property to newcomers or pursued individual efforts to farm the land.

Clark County in 1910 with a population of 3,321 included the Moapa Valley to the north, Indian Springs to the West, Goodsprings, Sandy, and part of the Pahrump Valley to the South, and the Colorado River region including El Dorado Canyon, Nelson, Searchlight, and Crescent at Nevada's southern tip. Las Vegas, considered the heart of the county, had 945 townspeople. Statistics indicate that Southern Nevada with 146 farms and ranches scattered throughout the county was a fairly typical agricultural frontier having a population with a significant number of married residents, families with children, and older citizens--all demographically representing a farming community. ²

Farming and ranching experiences in Southern Nevada mirrored the efforts of agriculturalists and stockmen throughout the West--locating water, filing land claims, clearing away brush, fencing, planting crops, building a homestead, and later, promoting their agrarian efforts. Ranching and farming homesteads irrigated with artesian water and entered in general land office records bustled with activity.

Part of the vigorous activity taking place, in addition to drilling for wells, included the preparation of the land for cultivation, a slow, cumbersome, and often expensive process, requiring back-breaking labor. Tillers of the soil required at least a year's worth of effort and unshakable faith in order to tame the land or make a profit. One Las Vegas

described the preparation of the soil for cultivation as “persistent stirring and watering the first season; a crop or two of green manure turned under...all that is required to get the ground in shape to produce anything....By the second season he is catching and by the end of the third he is ahead of the game.”³

At the onset, farmers needed to clear the land of sagebrush, creosote, and mesquite. And like irrigation projects, desert reclamation required teamwork. Neighbors pooled their draft animals--horses, mules, or oxen--in a technique known as “railing” to remove the brush. A railroad tie hitched to a team of draft animals was dragged across the field, uprooting brush in its wake. Ranchers estimated the cost for clearing and leveling crop lands at fifteen dollars an acre plus six dollars per day for a “railing” team. Evey reported, after locating one of the largest wells in the valley, that he had “dragged” forty acres in readiness for seeding. Wixon, Redman, as well as Buol’s Southern Nevada Land and Development Company had also cleared forty acres each.⁴

The Review reported in 1914 that twenty-three Las Vegas Valley ranchers--single individuals with limited means--and one capitalistic enterprise had cleared and prepared 227 acres for spring planting. The ranchers also had over a thousand acres already producing crops within a radius of twelve miles from town. The report further stated that:

the ranches containing this amount of cultivated land are so scattered in a valley of half a million [acres] that they attract little notice from the casual observer. The significance of the above figures...is that four-fifths of the acreage has been put in during the last two or three years and half within one. This shows the increasing impetus which agriculture is receiving here.⁵

Agricultural development was slow, yet valley ranchers made progress. Moreover, a brushy terrain often held certain advantages. Novice desert agriculturalists benefited from the experiences of pioneer farmers who taught them that the higher the sagebrush and the thicker the creosote, the better the soil. The Review commented on Nevada’s title as the “sagebrush state,” observing that this humble plant “so long the sign and character of the desert has been found to have another and far different significance....Wherever sagebrush grows...the soil is richer...and capable of...producing the most abundant crops....The

sagebrush is the surest index of Nevada soil values.”⁶ A writer for the Age, after visiting the Eglington ranch west of town, recalled that “surrounded as the place was by a wilderness of the natural brush, it seemed a tremendous and, perhaps, an uncertain undertaking to attempt to farm there.”⁷ The Eglington Ranch developed into one of the most highly productive operations in the valley.

Like the earlier Paiutes, white Nevadans proved resourceful in scratching out a living by exploiting any resource the desert offered. In this vein, local farmers struggled to find a commercial market for sagebrush. Their hopes were buoyed in 1910 when a Chicago chemical engineer began conducting experiments on the use of sagebrush as a base for making other products including wood alcohol, acetic acid, acetone, wood tar, charcoal, tannic acid, and rubber. Professor Sparling of the Chemical Products Company demonstrated that at a cost of five dollars he could extract twenty dollars worth of merchantable products from a ton of sagebrush. Company agents secured 275,000 acres of sagebrush donated by the “N-C-O” railroad who also agreed to pay one dollar an acre for clearing the ground. But the experiment came to naught.⁸

Mesquite trees, although requiring more effort to remove, also represented a valuable product as a source of fuel in a timber-scarce region. The sale of mesquite wood at nine and ten dollars per cord not only produced a profit but also paid for the cost of its removal. During one period of scarcity after the arrival of the railroad, the price of wood in Las Vegas soared as high as twelve dollars for two-thirds of a cord. John F. Miller sold the mesquite cleared from his ranch in Paradise Valley for a tidy profit while Peter Buol sold the mesquite cut from his land for fuel and fence posts.⁹

Due to a coal shortage in 1910, Buol also sent large quantities of wood to the Bullfrog mining district where it brought thirty-five dollars per load or short cord. The Southern Nevada Land and Development Company, in the process of developing Buol’s tract east of town as an agricultural project, posted a “no trespassing” sign hoping to deter the theft of mesquite. At the Winterwood Ranch, the profit from the sale of timber was enough to pay for the cost of clearing, leveling, and preparing the land for agriculture.¹⁰

Mesquite wood was also used for fence posts and tool handles. One enterprising homesteader, Philip Steinman, built an entire log cabin from mesquite. He used messcrew mesquite to construct main posts for the frame of his house as well as the main corner posts of his ranch. Messcrew, a type of mesquite called “screwbean” by Southern Nevadans, was a durable wood immune to rot as well as insect-proof. Steinman used only nine hundred mesquite posts and nine miles of wire to build a fence around his entire 160-acre homestead, dividing it into several pastures. ¹¹

As an alternative to mesquite, James Ladd used fence-posts made from cottonwood trees from Moapa. Cottonwood fence-posts served a dual purpose as they also grew into good-sized shade trees within three years. Fences constructed of solidly embedded mesquite or cottonwood posts and tightly strung with barbed-wire enclosed freshly-planted fields as a necessary deterrent to roving range cattle and sheep and to discourage ravaging coyotes and “gray battalians” of jack rabbits. ¹²

Barbed-wire, developed in the late 1870s, was a boon to farmers and ranchers in areas like Southern Nevada where wood of any kind was scarce, since fences could be built without using timber or stone. Miller constructed a barb-wire fence, considered a desert farm staple, around the perimeter of his cultivated fields and later expanded it to enclose the entire ranch. Desert Securities, a large-scale farming project east of town, engaged surveyor William Stewart and a crew of men to run fence lines around the entire six-thousand-acre tract. At the Clark-Ronnow Ranch, the expense of fencing the property was paid for out of the profits received from the sale of a remarkable yield of first-year crops. ¹³

A successful harvest of profitable crops represented the rewards of a rancher’s efforts after the tedious task of clearing, fencing, seeding, and irrigating the land. The productivity of the Clark-Ronnow Ranch after its first season, in addition to reflecting the labor expended on it, was also partly attributed to its location in a well-watered and fertile valley eight miles south of town. Las Vegans targeted Paradise Valley, described as a “sag in the landscape,” as the most promising area for developing an agriculturally-based economy due to its success in developing artesian wells. Of the approximately 125 artesian

wells sunk throughout the valley between 1907 and 1919, most were drilled in this section. Astute agriculturally-minded businessmen like Clark and Ronnow, who recognized the valley's potential, proceeded to establish small farms and ranch homesteads in the area and populate it with a farming society of businessmen-turned farmers. Other ranchers who pioneered the agricultural settlement of Paradise Valley included Julius Fox, Albert L.J Clark, John F. Miller, Jake Beckley, James Passno, Philip Steinman, Asher Helm and his son Henry, J.F.Evey, E.A.Wixon, Edwin G. McGriff, John Heaton, William Laubenheimer and many others.

Agricultural census records for 1910 report that these and other Clark County ranchers throughout the valley seeded 1,105 acres to alfalfa producing 4,449 tons, 293 acres to wheat amounting to 7,557 bushels, and 882 acres to barley yielding 21,989 bushels. Ranchers also raised a number of orchard fruits totaling 2,741 bushels picked from 442 trees; 21,402 grape vines producing 318,000 pounds of grapes, as well as a variety of garden vegetables on 803 acres including 121 acres of corn (1,806 bushels), and 18 acres of potatoes (1,404 bushels). The alfalfa crop was valued at \$49,931, vegetables at \$82,683, and fruits at \$15,583. ¹⁴

Clark-Ronnow's Paradise Valley Ranch, the largest in this sector, was one of the first to demonstrate the fertility of the desert along with its hidden cache of underground water. The Clark brothers, Edward W. and Frank, and Charles C. Ronnow operated the jointly-owned 480-acre Clark-Ronnow ranch besides maintaining a business partnership in a wholesale store. The partners established the ranch as a small "agri-business" to supply Clark's Forwarding Company as well as the local markets. The Age advertised the store, located at Main and Clark with a warehouse across the street, as the largest wholesaler of foodstuffs and farm produce in Nevada, selling groceries, salt, hay, grain, and feed. The county also approved Ed Clark's Forwarding Company for a permit to sell liquor--presumably as an aid to help quench the thirst of dry desert farmers. In order to better serve the farming and ranching community, Clark later expanded his inventory to include the International Harvester line of trucks, tractors, and farm machinery. Clark's ranching experiences became a valuable asset for his farming supply business and the town. ¹⁵

The work of preparing the land and drilling for wells on the ranch provided the partners with a year's worth of valuable experience. Their efforts paid off as the ranch ended its first season with a bumper harvest of alfalfa, grains, hay, and watermelon, thus demonstrating the fertility of the soil. Hay brought twenty-three dollars an acre with several cuttings a year the norm. The profit realized from local marketing of the output was enough to pay all the expenses of improving the property including the construction of a comfortable cabin for the foreman who managed the ranch. Several valley ranchers hired overseers while they attended to their business operations in town. Indeed, of the 146 ranches established throughout the valley in 1910, thirteen were operated by managers.¹⁶

As a result of the profits made during the 1909 season, the ranch devoted the following year to raising the same crops for revenue purposes. The number of acres seeded to alfalfa was increased from eighteen to fifty and, fulfilling all expectations, quickly grew six inches high. Farm workers planted another large acreage with wheat and barley with the goal of marketing a hundred tons. Looking to diversify, Clark and Ronnow experimented with a field of watermelons and grape vines, fruit trees, and a vegetable garden.

For new farms, trees were almost as important as crops. Thus farm hands on the Clark-Ronnow property also planted a large stand of cottonwood trees along the roadway leading to the ranch. Also popular were peach and red gum which adapted well to the heat and alkaline soil of Southern Nevada. Even the fledgling town of Las Vegas planted trees in the early years. Observers commented that during the summer of 1909 the "change from a treeless waste to a town of trees and flowers has been very noticeable.....With time and patience, wonders may be accomplished in this line so that in a very few years Vegas may well be known as the 'Garden Valley.' " Ranchers and farmers planted trees around the perimeters of their land not only to beautify the environs but to break the damaging force of desert winds on newly cultivated fields.¹⁷

By 1912, the Clark-Ronnow Ranch had clearly passed through the experimental stage in pursuit of its cash crops. The Review reported that "these gentlemen are going at the development of their ranch in a thorough and business-like manner and have probably

made the best showing of any of the new ranches in the valley.” The ranch placed one hundred acres under cultivation including eighty acres of alfalfa. Alfalfa, now grown extensively throughout the valley, sold for twenty dollars a ton in the field, yielding eight tons per acre with six cuttings a season. Thirty-five acres on the Clark-Ronnow ranch produced four thousand dollars worth of alfalfa. The watermelons and fruit grown on the ranch elicited comments regarding their fine flavor and sweetness. Observers from Searchlight also noted that the Clark-Ronnow Ranch was making a “practical demonstration of what the soil will produce....From afar one can see green alfalfa fields...a road lined with cottonwoods and scented with the sweet fragrance of alfalfa filling the desert air...” For the last two years the profits earned from crop-raising had paid for all improvements made on the property. The profits also enabled Clark-Ronnow to expand their operations to include a considerable stock-raising enterprise. ¹⁸

In 1910, 144 out of 146 farms in Clark County maintained domestic animals including 4,309 cattle and dairy cows, 892 horses, 36 mules, 35 asses and burros, as well as 58 goats; 8,100 sheep, and 1,452 swine with a total value of \$220,656. Census statistics also included 4,389 kinds of poultry valued at \$2,229. Not surprisingly, settlers establishing farmsteads on the edge of settlement depended greatly on their livestock to supplement their dietary needs with meat and dairy products. Moreover, the Clark-Ronnow Ranch illustrates that Southern Nevada ranchers like most frontier farmers generally operated a combination livestock, grain, and crop operation. Until the one-crop specialization efforts of the 1920s and concomitant trend towards using “scientific farming” techniques, diversification and experimentation were the norm. ¹⁹

Hay and grain typically were the greatest drain for Clark-Ronnow’s operation. A writer for the Review, after noting the agricultural pursuits of Paradise Valley’s pioneer ranchers including the type of crops being grown and the activities of livestock-raising, reported that:

the important item with all these pioneers is the raising of hay and grain with which to feed their stock, as this constitutes the biggest drain with which they have to contend while waiting for results from their labor. With hay and grain bills eliminated, it will be considerably smoother sailing for the ranch builders of Paradise Valley. ²⁰

Agricultural records for 1910 indicate that sixty four farms spent \$11,839 on animal feed while one farm spent five dollars on fertilizer. Nearly half of the valley ranchers were able to provide their livestock with feed raised on their own land.

The Miller Ranch, adjoining the Clark-Ronnow Ranch on the east, also had domestic animals including horses, cows, and chickens. In August 1909, the railroad shipped a carload of farming implements to the Miller ranch and, within three months, Miller had cleared and planted forty acres of grain and one acre of watermelons. Observers noted that barley grew “luxuriantly to the height of a man’s shoulder and other grain prospered in proportion.” Miller sold 25 percent of his one-acre watermelon crop for two hundred dollars. However, due to poor marketing and sluggish sales locally, 75 percent of the watermelons remained unpicked. Ranch visitors hauled away as many watermelon as possible but most lay rotting in the field.²¹

Undaunted, Miller cultivated a hundred acres of crops in 1914. He also built a cabin for the ranch hands along with a barn to shelter the livestock and poultry near the largest well on the property. The Miller Ranch responded to the effort and money expended on it and served as a model of Paradise Valley’s soil fertility and productiveness. By 1920 Miller, listing his occupation as a farmer, owned the ranch free and clear and his oldest son worked as a farm hand on the property. Miller also remarried. He and his wife Rosa, an Italian immigrant, had a seven-year-old son and a three-year-old daughter. In addition to his contribution to the Las Vegas economy as a hotel owner, Miller was also a member of the Clark County Farm Bureau and served on its livestock committee. He represented many of the valley’s ranchers and farmers who remained committed to the agricultural development of Southern Nevada throughout the 1920s.²²

Another urban businessman also promoted rural Nevada. Jake Beckley, Miller’s neighbor to the east, who later supported cotton-growing in the 1920s, also exhibited a strong commitment to the valley’s agricultural future. Beckley, a German immigrant, listed his occupation as a Las Vegas lumberman in 1910, but he also farmed. After selling two productive ranches through relinquishment, Beckley acquired a third ranch of forty acres in 1912. Beckley’s ranch had a one-acre orchard of deciduous fruit trees, a vineyard, a

watermelon patch, and a ten-acre garden which included one acre of sweet potatoes, one acre of white potatoes, one-half acre of peas, and some beets. In 1916, after heavy rain pummeled the valley, Mrs. Beckley reported that the ranch was badly damaged by the storm. The alfalfa crop was down and covered with a layer of silt and inside the house water stood two feet high. Despite this setback, Beckley persevered and continued to farm in Paradise Valley. His determination was representative of the tenacity demonstrated by most of the valley's ranchers. ²³

Near the Beckley, Miller, and Clark-Ronnow ranches, other pioneer homesteaders on neighboring tracts had also cleared and readied their land for cultivation. Like Miller and Ladd, Julius Fox was also an urban hotel owner operating a tent full of cots across the street from the Arizona Club (on the west side of North First Street between Ogden and Stewart). Fox was a Russian-Polish immigrant who represented one of twelve foreign-born farm owners including settlers from Germany, Italy, England, Ireland, and other nations. He homesteaded a 160-acre tract west of the Clark-Ronnow property in 1909. Fox seeded twelve acres with alfalfa, completed his first irrigation, and within two weeks his crop was already sprouting. In 1912 Fox cultivated twenty acres and irrigated them with the water from his two wells. By 1917 Fox was experienced enough to advise other growers about the fundamentals of truck farming as part of the Thrift Garden Movement of World War I. ²⁴

The property of ranch owners Albert L.J. Clark and E.A. Wixon adjoined Fox's homestead on the southeast. Clark's ranch hosted ten acres of alfalfa, a small orchard, and a vineyard. Nearby, Wixon had forty acres cleared and forty acres cultivated with alfalfa and other crops as well as a small orchard. The respectful Age described Wixon as "tireless in his efforts to bring the property to its present gratifying condition and his success has gone far to encourage others to undertake similar enterprises." In Southern Nevada leasing was as popular with ranchers as it was with miners as it provided a way for the owner to obtain additional capital for improvements on his property or for investment purposes. In 1914, for example, Wixon leased his ranch to Edwin G. McGriff on a one-year contract. At the end of the year, McGriff rented the former Evey Ranch from C.E.M.

Beall for an extended five-year period before purchasing it in 1920.

Evey's 160-acre ranch, west of A.L.J. Clark's, was first known for its large artesian well. In 1909, the Review noted that Evey planned to engage in large-scale farming. After successfully locating water, Evey went to Los Angeles for farm implements, horses, and other items used for ranching. He had concluded that since he had the water and the land "the latter was worth farming and worth farming right." After chartering a railroad box car to transport four big work horses, plows, cultivators, harrows, seeders, and other farm supplies useful for reclaiming the desert, Evey demonstrated that the development of farming in "the Vegas valley will be carried out on no small scale." In March 1910, Evey had ten acres planted and forty acres ready for seeding. By August, however, Evey had sold his 160-acre ranch to C.E.M Beall, superintendent of the Las Vegas and Tonopah Railroad, for \$5,000--what other ranchers considered a bargain price.²⁵

Most Paradise Valley farmers remained committed to improving their 160-acre holdings. Many in this group included railroad workers based in Las Vegas as well as full-time ranchers. Among these men were Asher and Henry Helm and Philip Steinman of Ohio, and railroad workers James Passno, a locomotive engineer from Canada; John Heaton, a station agent also from Ohio; and Charles Redmon of Maine, traffic manager for the Las Vegas and Tonopah Railroad. Asher Helm had twenty acres under cultivation while his son Henry at the adjoining ranch along with Heaton had ten. Redmon planted forty acres to grain and alfalfa as well as an orchard. In 1912, Passno, with the help of a ranch manager and a farm hand, cultivated a small acreage with the prospect of expansion. By 1914, the Passno Ranch had twenty acres cultivated and ten acres cleared and ready for planting. Steinman, in 1912, had sown ten acres worth of crops, although two years later this had dwindled to just two.²⁶

Steinman's lack of progress was attributed to a shortage of funds as well as time. Insufficient capital was a common problem in the arid regions due to the expense involved in developing water, preparing the land, and making the necessary betterments. Steinman, chronically short of the money needed to make improvements on his property,

was forced to work at a variety of odd-jobs and unable to devote full attention to his own land. Steinman, like others, illustrates the downward mobility that afflicted those with insufficient capital and land. After the well drilled on his 160-acre homestead exhausted his savings, he found work at a nearby ranch. According to Steinman, “they welcomed me to the neighborhood and gave me a job. I worked for them during the daytime, riding back at night to my tent home. In between times, when I had an opportunity to have a day or so off, I would clear some of my land....” Steinman labored at the farm of George Crouse where he helped care for his chickens, rabbits, and pigs in addition to tending the vegetable garden and peddling the produce. He also sold watermelon and cantaloupe, prompting the local children to call him the “watermelon man.”

He also worked at the ranches of William Laubenheimer and Frank Matzdorf while they needed help. Steinman explained that his outside jobs “took several years, for I needed the money to develop my own ranch. I kept an old man on my ranch to look after things while I was working for others. Weekdays and Sundays I spent working on my own ranch. I built a two-room ranchhouse, a nice barn, and put up a woven-wire fence around the garden.” In addition to toiling as a farm hand, Steinman worked as a slaughterer for the Las Vegas Mercantile Company (after being in the middle of three bull fights, he quit this job), a sheep and cattle loader at the railroad’s stock yard, a well-driller, and a construction worker helping to build the Methodist Church, the county courthouse, and the town’s first high school. In 1910, Steinman, with the idea of starting a tourist hotel, also made plans to purchase another 160-acre parcel with an artesian well (now the site of the Desert Inn) from a disgruntled farmer. However, despite the fact that the owner was selling his land at a bargain price, Steinman was unable to secure sufficient financial backing and the plan came to naught.

He symbolized the adaptability of early Las Vegas residents who moved from rural to urban occupations with dizzying speed. In the slower winter months Steinman went prospecting around Frenchman’s Mountain five miles to the East where he held several worthless claims containing low-grade ore deposits. In the course of prospecting, he located and filed on several gypsum deposits which he later sold. Because Steinman’s ranch along with his outside work required all of his time, he was unable to develop his

mining claims. He also experienced several setbacks which further deprived him of the time needed to farm his land. Between 1910 and 1919, he was harassed by cattle-rustlers, robbed by dishonest neighbors, and forced to serve as a jury member at harvest time which resulted in the loss of his crops.

Steinman's experiences with the cattle-rustlers illustrates an ongoing conflict typical of the ranching and farming frontier in Southern Nevada and elsewhere. The "cattle rustlers" who pestered Steinman were originally disgruntled cattle ranchers angered over the increasing encroachment of farmers homesteading on the once wide-open range lands. On several occasions, outlaw cattlemen waylaid Steinman near his homestead as he returned from his job in town. Steinman, keeping his pistol or rifle near at hand, threatened to shoot if they continued to block his passage. In response, they told him that "this was no healthy place for a 'kid of a homesteader,' and that they had ranged their cattle there for years and were not going to be forced to move on." Steinman informed them that he had legally filed on the homestead, had it surveyed, and meant to live there--their cattle were not welcome on his property.

To safeguard his ranch while he was away Steinman, like other ranchers, employed visiting prospectors who often stayed at his homestead to rest up before resuming their travels. In spite of Steinman's watchmen the cattle-rustlers cut through his wire fences, dismantled his tent shelter, stole his canned goods, and took pot-shots at his horses as they grazed in the pasture. The outlaw cattlemen harassed Steinman as well as several other homesteaders in Southern Nevada for about fifteen years. His hostile encounter with the outlaws reflected the collective experiences of most small operators in the West. The fear of monopolization of natural resources by one group over another created opposition between homesteaders and cattlemen which often erupted into violence.²⁷

In 1919, the rustlers who had harried Steinman and other valley home-steaders targeted the Wilson Ranch and stole several branded cattle from the corral. The Wilson brothers placed an ad in the Age showing the mark used to brand their cattle and horses as well as the location of the range lands where their livestock typically grazed and, as members of the Southern Nevada Cattle Owners's Association of Goldfield, sought their

assistance in locating the missing stock. In the 1870s, with the growth of the cattle industry, stock-raisers in ranching communities throughout the West, including Southern Nevada, began organizing cattle associations at the local level originally for the specific purpose of mutual protection against cattle rustlers and horse thieves. In response to the Wilsons' theft, the Southern Nevada Cattle Owners's Association of Goldfield, offered a reward for information leading to an arrest or conviction for the crime of grand larceny-- five hundred dollars for information leading to the cattle rustlers and a hundred dollars for horse thieves. In 1920, the culprits were arrested by the Federal Bureau of Investigation after transporting the stolen cattle across state lines into Salt Lake City, Utah. The government convicted the thieves and sent them to the state penitentiary.²⁸

In the end, Steinman, like many determined cattlemen and farmers in the Southern Nevada desert, succeeded. His perseverance paid off and his ranch proved productive. In 1914, he reported that the soil on his farm was fertile enough to produce a sixty-two pound Chilean watermelon, a forty-pound sugar beet, and cotton plants containing two-hundred bolls. With the help of three farm hands, Steinman planted, irrigated, and gathered produce for the local market. He raised four hundred crates of cantaloupes, four tons of White Rose potatoes to the acre, carrots, parsnips, salsify, and tobacco. After harvesting six cuttings of alfalfa, Steinman produced two crops of cabbage, potatoes, corn, and turnips on the same field.

The railroad town of Las Vegas was his primary market. He reported that he peddled his produce retail "every day except Sunday from April to October. It took four horses to pull the load through the sandy roads to Las Vegas...reaching town by seven a.m. and selling out by noon." He also sold freshly slaughtered pigs and chickens along with fruits and vegetables. Steinman sold his neighbor's crops as well claiming that "they knew how to raise vegetables, but were not salesmen." According to Steinman, local grocers attempted to get the city council to force him to buy a license to sell produce in the city. Steinman appeared before a council meeting refusing to pay for such a license "as very few farmers would undergo the hardships that I did to raise these vegetables and sell them fresh in town....I will sell them from my ranch outside the city limits...and my

customers would also object to my having to pay for a license.” In the end, the council recognized that city residents could enjoy lower prices buying from a local farmer and denied local retailers the protection they demanded.²⁹

Steinman managed to develop his ranch as well as hold a variety of jobs in town, remain actively involved in community activities, and deal with a variety of problems. Some of the railroad men, however, gave up farming. James Passno, for instance, rented out his land to devote more time to his job as a locomotive engineer. In 1916, he leased his Paradise Valley Ranch to Yonema “Bill” Tomiyasu, a Japanese-American farmer and one of the few Japanese to live in the Las Vegas Valley. Tomiyasu, like McGriff, Lorenzi, and other later arrivals, was attracted to Las Vegas after seeing promotional material advertising the area’s farming possibilities. He became a prominent and well-respected Las Vegas who contributed significantly to the valley’s agricultural development.³⁰

The city’s first mayor also had an interest in agriculture. Peter Buol, a Swiss-German from Illinois, was a prominent contributor to Southern Nevada’s agricultural growth. In the course of fostering an agriculturally-based economy, many business-minded migrants, in addition to farming and ranching, also engaged in land speculation and development to boost agriculture. Buol, a real estate agent and Las Vegas’s first mayor, along with other leading businessmen, realized early on that in order for the town to prosper they needed to tie business interests to agricultural expansion. After all, the railroad had radically changed agriculture by creating a local market of 2,000 residents. It also opened up distant markets for Southern Nevada produce in Utah, California, as well as in the Bullfrog Mining District to the northwest. Moreover, Las Vegas could plant enough acreage locally to develop a food-processing center as part of its nascent economy. Economic diversification was in the city’s best interest, because, as even Senator Clark realized, the town was too dependent upon the transportation industry. This alliance between business and hinterland agriculture would manifest itself repeatedly in a variety of ways over a two-decade period.

Buol, through various enterprises including his Southern Nevada Land and Development Company, was one of the most avid supporters of ranching and farming

ventures. He sold ten and twenty-acre parcels to several aspiring valley farmers in Buoltown, one mile southwest of Las Vegas--one of his earliest speculative land deals. William Laubenheimer purchased thirty acres, George Swadener and I.C. Johnson purchased twenty acres, Frank Matzdorf and his wife Blanche purchased fifteen acres, Mac Mc Donald purchased five acres, and William Tate along with Senator Alex M. Miller, a retired United States's Senator representing West Virginia's Ninth District for twelve years, also acquired land in Buoltown. Miller purchased a ten-acre tract from Buol and filed a claim on 320 acres after spending the winter of 1909 in Las Vegas for his health. David Lorenzi, like Miller, was also later attracted to the valley for health reasons as town boosters often used Southern Nevada's dry climate and healthy environment as a drawing card to attract new settlers.³¹

Economic opportunity and cheap land, however, continued to lure most newcomers into the valley. Willaim Laubenheimer migrated West due to the requirements of his career as a printer in the newspaper business before he took up farming full-time. The son of German immigrants, Laubenheimer arrived from Fairbury, Illinois by way of Redlands, California in 1905 at the age of twenty-two. He worked as a printer for T.G. Nicklin, owner of the Las Vegas Age, as well as for the Clark County Review. In 1910, Laubenheimer began farming after purchasing ten acres of land from Buol. By 1911, the Review was referring to him as "Lucky Laubenheimer" after he located a forty-inch flowing second well on his property. The Review lauded his farming accomplishments after his first season despite a diminished flow from his original artesian well. Laubenheimer decided to locate a second well and, showing "the courage and the fortitude of a true pioneer...his efforts were rewarded." The paper went on to observe that "he has nearly everything growing that will grow in this section...proving what Vegas Valley's virgin soil will do under the touch of intelligence and perserverance."³²

Laubenheimer continued working as a printer for several years to finance his ranching venture and eventually began farming full-time, once bumper harvests demanded his entire attention. He also hired Steinman to assist him with his farming operations. He increased the ranch's size to thirty acres and included a fruit orchard of over two hundred

trees of various kinds, grape vines, a selection of garden vegetables, strawberries, alfalfa and other produce. The Clark County Review was originally Las Vegas's major newspaper and one that continually monitored agricultural progress beyond the city's borders. It was common for writers to boost local farmers in order to encourage more hinterland development. In this vein, a writer for the Review suggested that "those interested in the agricultural possibilities of the valley should visit William Laubenheimer's Ranch...where he has accomplished wonders...." The journalist also reported that after being invited to dinner he was served seven kinds of vegetables including new potatoes. Local ranchers often treated reporters who came out to check their progress for their respective newspapers to a home-cooked meal, serving freshly-picked garden produce.³³

Clark County Assessor Steven Whitehead, one of the valley's most avid promoters of agricultural development, used Laubenheimer's Ranch as an example of the valley's potential for profitable crop-raising results. Steinman, Laubenheimer's gardener, reported to Whitehead that 2 and 1/2 acres of both watermelons and cantaloupes sold on the local market for a thousand dollars. The cost of airing, transporting, and marketing the fruit was \$235 leaving a net income of \$250 per acre.³⁴

Laubenheimer's lucrative 1911 season allowed him to marry. A year later, the Age characterized Laubenheimer as a "popular young man now engaged in developing large tracts of farming land south of town." Laubenheimer later expanded his ranching business to include a meat market. This enabled him to cut costs by becoming his own middleman. Thus, in August 1916, he opened the Palace Meat Company in partnership with M.R. Hampton, selling poultry, pork, spring lambs, and Overton-raised beef. Several meat markets with slaughtering facilities set up shop in Las Vegas in order to process meat from local livestock ranchers. In addition to this company, other butcher shops between 1907 and 1925 including the Nevada Meat Market owned by Anthony Schweibig, the Las Vegas Meat Company owned by John Lefurgey, and the Sanitary Meat Market owned by a corporation also processed local livestock products.³⁵

The other ranchers in Buoltown were less successful. For the most part, they continued to farm on a small scale due to their holding second jobs. George Swadener in

1912 had twenty acres under cultivation, yet in 1914 due to the demands of his job as a carpenter he only cultivated four acres. Senator Alex Miller had cultivated all ten of his acres, Mac McDonald five, and I.C. Johnson with sixteen. Frank Matzdorf, who shared an ethnic kinship with Laubenheimer as the son of German immigrants, owned the Overland Cafe, a popular Las Vegas eatery, where his wife Blanche worked as a cook. In 1912, Matzdorf managed to cultivate fifteen acres of land where he grew fresh garden vegetables to supply his restaurant. In January 1914, however, Matzdorf leased his ranch to Albert Holly of Ontario, Canada and James Chapman of Illinois who planned to cultivate it on a larger scale. Matzdorf's decision to lease his ranch may have been prompted by a new interest in politics as in 1915 he served as a Clark County Commissioner. His many outside affairs kept him from farming as he also continued to work in the restaurant and remained a partner in the Star Well-Drilling operation. Matzdorf may have also campaigned for his son J. W. who, through his experiences as a fireman for the Salt Lake Railroad, qualified to serve as Police and Fire Commissioner in 1915-1916.³⁶

Despite political, civic, and outside job responsibilities, the ranchers in the newest agricultural areas of Buoltown and Paradise Valley transformed the once barren landscape while the older ranches continued to operate as well. Moreover, locations around the valley mirrored their farming activities. The Old Las Vegas Ranch underwent a spate of ranching renewal as did the Kiel Ranch and the Helen J. Stewart Ranch, while one mile northwest of the Las Vegas Springs, F.W. Eglington broke new ground and expanded valley agriculture even further.

Ethnic contributions to agriculture were also becoming noticable as Italian immigrants like Manuel Champo who farmed at Cow Springs south of Green Valley, and Vincent Matteuci at the Cottonwood Ranch near Blue Diamond, as well as David Lorenzi, a native of France, began to establish homesteads. Other immigrants--foreign-born and first-generation--included John Tuck, an English cattle rancher, who leased a tract of land along the Colorado River; Charles Kaiser, a first-generation German, who established a sheep ranch near Red Rock Canyon; and Yonema "Bill" Tomiyasu, a Japanese farmer, who pioneered in the ongoing development of Paradise Valley. Other ranchers including

poultry, dairy, and livestock; dry-farming advocates, and capitalist farmers all shared in Southern Nevada's agricultural metamorphosis.

Under railroad ownership, the Old Las Vegas Ranch also modernized with the times. The ranch, comprising some 1,516 acres and assessed at \$5,500 in 1905, was operated by a series of managers including J.K.L. and Walter Bracken (reportedly Senator Clark's cousins) and Harry Beale. The ranch house became a resort for "urban" Las Vegas and the railroad rented out the pasturelands to a series of enterprises including a slaughterhouse, a dairy, and later, in 1925, to the University of Nevada for an agricultural experiment station. Property managers also leased out farm land to vegetable and fruit growers. In 1905, Beale managed the railroad's property and converted the ranch house into a country retreat for Las Vegas. In order to impart a resort atmosphere, the railroad remodeled the main structure by adding a screened dining hall with a view of Frenchman's Mountain (Sunrise Mountain), a billiard room, and an outdoor pavillion for dancing. A swimming pool was later added by damming up part of the Las Vegas Creek. The Old Ranch accommodated overnight guests in adobe-built rooms or in tent houses. In 1906, Walter Bracken took over management of the ranch and leased out the lands and farm buildings for agricultural and ranching enterprises. Leasees of the farm lands began shipping produce to the Bullfrog mining district and other points while the Las Vegas Mercantile Company and Slaughterhouse leased the pasturelands, the barn and other buildings as well as the corrals to hold livestock for butchering.³⁷

Trespassing and theft were a major problem. Trespassers hunting on the ranch accidentally killed cattle and caused other damage. In 1907, an unknown intruder hunting game in an enclosed pasture ignited a grass fire which burned for several hours, destroying 250 acres of pasture, two miles of outside fencing, and a number of branding corrals. Fifteen railroad workers helping to put the fire out saved the slaughterhouse and other buildings and herded the cattle to safety. Bracken and E.T. Maxwell of the Las Vegas Mercantile Company offered a \$100 reward for the arrest of the arsonist and a fifty dollar reward for the apprehension of any trespasser. The Age reported that both men had "reached the point of desperation and threaten to make it warm for anyone caught on the

premises in the future.” But the trouble continued. In 1914, the railroad reported the theft of eight sheep from the stockyards. The Age noted that several thefts had been committed in the past year and that the “culprits succeeded in every case in getting away with the mutton and that the thing is getting monotonous to the railroad people.”³⁸

The railroad did not want the responsibility of operating the sprawling property itself. So, in 1910, it leased part of its land to Orson Sanford of Michigan who, along with his wife of eighteen years and their four children, operated the Vegas Jersey Dairy. His family later returned to Wolverine, Michigan and in 1912 Sanford sold his dairy business in order to rejoin them. C.C. Mobley, a former Riverside, California dairyman, purchased the business along with the sublease on the ranch which included forty-two head of cattle and nine horses, farming and dairy equipment, and the house built on the property by Sanford. Mobley announced that he would institute the most modern dairying methods in order to keep the business up to its highest standards.³⁹

Mobley shared the leasing arrangement on the ranch with John Lefurgey and W.E. Houck. Lefurgey, a rancher from Canada, rented pasture land as well as the slaughterhouse, the meat market, and the cold storage plant located on the premises. He stocked the ranch with Utah beef which he and his wife Anna, also a butcher, later killed and sold locally. The meat market business and all the equipment was under sublease to Houck. Lefurgey, in addition to ranching and his other business interests, was also appointed as a suretie for the town commissioners by city clerk Harley Harmon in 1911. In 1914, Lefurgey sold his Las Vegas business interests to Mobley and retired to a ranch in Mesa, Arizona.⁴⁰

Mobley now moved to consolidate his holdings and concentrate on dairy operations. After purchasing Lefurgey’s business, he acquired the lease for the entire ranch property with the exception of the meat market which remained under the proprietorship of Houck. The Review reported that for the past two years Mobley had built up a successful dairy and that the acquisition of the entire property was the result of hard work and strict attention to detail. He planned to widen the scope of the dairy and ranch business by making extensive improvements wherever possible. Mobley expanded his Vegas Jersey

Dairy by selling a greater variety of goods including milk, cream, buttermilk, and cottage cheese to local consumers including Lorenzi's Oasis Cafe.

However, a local outbreak of typhoid threatened his dairy business. For the benefit of his Vegas Dairy customers, Mobley reported that Stephen Lockett of the State Board of Veterinarians tested his dairy herd for tuberculosis on a regular basis. Mobley's concern for sanitary conditions may have been a response to a 1911 community scare regarding a possible typhoid outbreak believe caused by contaminated milk or water or some other unknown cause. The Review sounded the alarm over unsanitary conditions after reporting that Frank Grace's three-year-old daughter Helen might have contracted typhoid. Grace, a railroad supervisor, suggested that town leaders make a thorough investigation and that parents should also take a more active interest in sanitary conditions.

In 1916, Dwight Doolittle acquired ownership of Mobley's dairy and operated it through the 1920s. Doolittle like Sanford, the dairy's first owner, was also from Michigan. He ran the dairy with his wife as the assistant manager, his two teenaged sons, and two Paiute farm hands--Stub Twies and Leroy Neagle. Doolittle also employed Neagle's wife as their housekeeper. In 1924, the Union Pacific Railroad donated ten acres of ground adjoining Doolittle's dairy to the University of Nevada to use as an agricultural experiment station. According to Professor George Hardman who operated the station until 1934, "we took this raw land which is now part of the Las Vegas Cemetery, reclaimed it, laid it out, [and] carried on our experiments with fertilizers and farm manures." The Doolittle Dairy supplied the manure for the university agronomists and the railroad supplied water from the Las Vegas Springs. ⁴¹

Besides his dairy, Mobley also played an indirect role in helping the local cantaloupe business. To provide extra income for the farm Mobley, like his predecessors, leased out a portion of the land for farming. In 1914, McGriff rented land from Mobley until he acquired Beall's Paradise Valley Ranch. He grew strawberries on a small plot of land which were reportedly excellent in size, beauty, and flavor. The Age reported a heavy yield for such a small area planted and viewed the results as encouraging. Buol, on behalf of his Southern Nevada Land and Development Company, in partnership with Issiah Cox,

a Moapa rancher, leased forty acres of the Old Ranch to raise cantaloupes. Cantaloupes raised in the Las Vegas Valley brought \$1.10 per crate on the Salt Lake City market with 350 crates culled per acre while the Moapa Valley yield was only 160 crates per acre. Valley growers in 1914 considered raising cantaloupes on a commercial-scale as the net income per acre amounted to \$122.50. ⁴²

North of the springs and the Old Las Vegas Ranch, the Kiel Ranch, the second oldest ranching operation in the valley, also continued its existence as a productive working farm under new ownership. The future of the ranch remained uncertain in 1901 after Conrad Kiel's heirs sold 160 acres to the Utah, Nevada, and California Railroad Company. Like the Old Las Vegas Ranch, the Kiel property was also slated for railroad use. The Las Vegas and Tonopah Railroad line made plans to link Las Vegas with the Tonopah and Goldfield mining camps using the Kiel property as a right-of-way. In 1905, however, the construction project in this sector was abandoned and the railroad sold the property to John S. Park who continued its legacy as a working ranch. The property now included 280 acres with a tax assessment value of \$1,000. ⁴³

Park, due to his business obligations as cashier-manager of Las Vegas's second bank establishment--the First State Bank of Las Vegas (now First-Interstate)--resided in town and leased his ranch to George and Dola Crouse. Park and Crouse, both from Kentucky, may have been acquainted before their arrival in Las Vegas. Crouse, a first-generation son of German immigrants originally from Ohio, leased the ranch property until 1910. This was a common practice, as newcomers often rented farm property until financially able to secure their own land. In 1910, nine farms were tenant-occupied while 124 were operated by owners. ⁴⁴

In April 1905, the Las Vegas Times interviewed Crouse as part of the newspaper's ongoing efforts to interest other residents in the area's agricultural possibilities. The article complimented Crouse for "his splendid agricultural showing" on twenty acres of land. By July 1906, Crouse was shipping Las Vegas melons to the Bullfrog and Beatty mining districts. The Age reported that a twenty-two inch watermelon weighing forty pounds grown in Crouse's garden was sold to a Beatty miner for the princely sum of three dollars

after being put on display for two days at Judge Beal's office. ⁴⁵ In typical booster fashion, the newspaper touted Crouse's watermelon as an "eloquent example of what can be accomplished on the desert with irrigation."

In 1910 the Crouses, after renting from Park for five years, took over the lease of another ranch where they continued to farm. By 1912, Crouse reported that he was grossing over \$1000 per acre each year with his market gardens. In addition to his garden truck, Crouse planted an orchard of several acres and raised chickens as well as rabbits and pigs with help from Philip Steinman, his farm hand. By 1920, in addition to farming, the Crouses also operated a retail fruit store where Dola Crouse worked as a fruit sales lady. Many local growers at this time often engaged in retail produce sales for the local market, becoming their own middlemen. ⁴⁶

Future Las Vegas mayor John Russell also began his Las Vegas career as a rancher. Once the Crouse's moved to another farm, Park let his property in February 1910 to the twenty-six-year-old farmer from North Dakota, who secured the working lease for the coming season. The Review reported that as has been the custom of previous leasees, Russell planned to raise vegetables, melons, and other produce for the local market. His move West was probably facilitated by the profitable sale of his family's North Dakota farm. The value of agricultural lands in the Midwest spiraled upward between 1900 and 1910 with the price for North Dakota farms increasing by as much as 321.3 percent. Russell, after obtaining the lease on Park Farms, was joined by his family including his father George, a retired farmer; his step-mother Mary, his grandfather, and sister Julia.

Russell leased Park Farms for about two years before purchasing his own property. By 1920, Russell operated a dairy farm. He remained single and continued to support his widowed seventy-three-year-old stepmother (his father died shortly after his arrival) and his unmarried forty-one-year-old sister. His household also included a boarder. Farmers often took in boarders, thereby solving a two-edged dilemma. Renting out a room would provide the rancher with extra income to help defray the cost of property improvements as well as furnish a home for the mostly single men who arrived on the mining and ranching frontier in large numbers. Russell rented a room to a thirty-two-year-old widower from

California with three young daughters who worked as a chemist for a mining company. Thanks to his business prowess, by 1921 Russell was able to afford the construction of a reservoir on his property with the water capacity to irrigate one hundred acres of land--most of which was already under cultivation.⁴⁷ Russell's earlier stay at Park Farms provided him with valuable experience regarding the art of desert agricultural practices.

The management of Park Farms fell increasingly to John S. Park's son, Dr. William S. Park, a local dentist. As a result, a second home was built on the 280-acre property for Dr. Park's family which included his wife Mary Belle, a Texan by birth, and their young son John. Mary Belle Park, accustomed to the plantation society of Kentucky where she was raised and referred to by several ladies in the community as a "southern bell," called her new home Poplar Grove after the antebellum-style southern practice of naming one's residence.⁴⁸ Dr. Park operated the ranch and practiced dentistry in town on a part-time basis.

Park proved to be a capable manager. In 1913, he sent a preliminary shipment of muscat grapes to northern dealers to test their market response. The Age extolled Park Farms's grapes as being "splendid in size and flavor with the percentage of sugar exceeding that found in grapes grown in any other known locale." Salt Lake dealers responded enthusiastically to Park's trial shipment and requested the season's entire grape crop. Park Farms shipped 120 baskets per day with a card printed with the grower's name and locality enclosed in each basket. The Age, however, voiced its puzzlement regarding the odd fact that local produce merchants continued to import inferior grapes from California rather than carry the clearly superior local product. The grape vineyards at Park Farms came from the original European stock imported from France and Spain by Daniel Bonelli. The crop produced excellent wine and sweet raisins and Park made plans to increase the size of the vineyards and begin wine-making and raisin production on a larger scale. In fact, Helen Stewart viewed the success of the Park vineyards as an inducement to other valley ranchers to engage in grape cultivation thus "bringing much riches to the valley."⁴⁹

In addition to grape-growing, Park raised sugar beets of an exceptionally large size. Park placed three specimens--two weighing eight pounds each and one seven pounds--on

display at the chamber of commerce. After viewing the beets, an Age writer suggested that if Senator Newlands succeeded in preventing Congress from putting sugar on the “free list,” valley residents could profitably grow beets to provide sugar. Farmers also hoped that enough interest would be generated in beet culture to justify the building of a sugar refinery in the area.⁵⁰

The continuing productivity of Park Farms along with its location as the site of the first artesian test well made it the most promising spot from which to conduct further studies for increasing the valley’s water supply--an ongoing concern of desert farmers. In July 1916, Professor Dean Scrugham of the University of Nevada’s engineering department and F.L. Bixby, engineer for the United States’s Department of Agriculture, began excavating water mounds at the Park Ranch in order to locate an additional flow of water. Dr. Park arranged to defray the cost of the experimental work with the exception of the workmen’s salaries. Scrugham and Bixby obtained a good flow of water producing ten thousand gallons per hour thus demonstrating that water mounds might be as valuable as drilled artesian wells and less expensive to develop. Engineers conducted experiments throughout Southern Nevada including Pahrump, Indian Springs, Moapa, and the Las Vegas Valley regarding the location of additional underground water supplies. University and government engineers discovered several water mounds which yielded large flows of water after being cleared of sand and brushy debris. The existence of desert water mounds indicated that a considerable supply of water was available for further development--a boon to the valley’s increasing agricultural growth. The newly excavated mound found on Park’s property contained one of the strongest flows of water, increasing the flow from the springs from 5 gallons to 157 gallons per minute.⁵¹

No wonder it attracted an out-of-state buyer. In 1924 Park Farms, described by pioneer Las Vegan Elbert Edwards as a “beautiful garden spot of the southwest...with vineyards, trees, orchards, and an abundance of water,” was sold to Chicago millionaire Edward M. Taylor for \$45,000. Frank Allen, a machinist for the railroad, took over the management of the ranch for Taylor. Allen ran livestock which included cattle and horses on the range from Sheep Mountain to Pharanagat--sixty miles up the valley--and tended to

the vineyards with great care. The summer crop produced fifteen tons of grapes and included four varieties--California Mission, DeCante, Malaga, and Zinfandel. The Taylor Ranch also served as a homestead for championship rodeo cowboys between 1926 and 1939 where they could practice their craft. ⁵²

By 1939 the historic Kiel Ranch, after surviving for more than half a century, finally succumbed. Ironically, Hoover Dam brought the death knell to valley agriculture by triggering the urbanization of Las Vegas. No longer an agricultural oasis in the midst of the valley, the Taylor Ranch became the Boulderado Dude Ranch--a refuge for anxious divorcees awaiting the six-week residency requirement needed before receiving a Las Vegas-style divorce. ⁵³

Pioneer rancher Helen J. Stewart, the largest land holder in Southern Nevada with over a thousand acres of land as well as the sole female ranch owner, never lived to see the transformation affecting the Kiel Ranch. Until her death in 1926, Mrs. Stewart continued to operate her property as a cattle ranch and served as one of the valley's strongest supporters of agricultural development. Her encouragement and advice regarding crop types, soil composition, and climatic conditions proved invaluable to new farmers. Mrs. Stewart consistently touted the superiority of the Las Vegas Valley "over all other agricultural districts in the southland of the West." She also continued to employ Paiute labor from the Indian colony located on the ranch. Among the Indian population of thirty-seven, twelve males worked as farm hands and two females served as laundresses. Children and the elderly comprised the remaining Paiute residents. In addition to cattle-raising, the Stewart Ranch grew a variety of fruits and vegetables for the town. Mrs. Stewart remained actively involved in ranching operations as well as in the life of the community up until her death in March 1926. ⁵⁴

Her encouragement no doubt reinforced the optimism of Frederick Eglington and his wife Lorena. In 1912, they settled on property three miles west of the Stewart Ranch. Although a relative newcomer to the valley's agricultural frontier when compared with the Old Las Vegas and Kiel Ranches, the crops were already making a productive display. Age editor Charles "Pop" Squires, after visiting the ranch, reported that "in spite of the

generally accepted idea that the soil is not in proper shape to produce well the first season of cultivation, the Eglington Ranch is now producing young onions, beets, carrots, summer squash, and some other vegetables of excellent quality.” Squires told his readers that the results “speak well for the future of the Eglington Ranch as one of the most fertile sections of the Vegas Valley.” Eglington often provided the editor and his staff with samples of his produce to keep them apprised of his agricultural progress.

Eglington’s notoriety prompted another visit by a member of the local newspaper staff who waxed enthusiastically over the list of items successfully grown on virgin land. The list included almost everything in the grain, fruit, and produce line: alfalfa, wheat, oats, corn, beans, cabbage, kohlrabi, onions, lettuce; summer, crook-neck, and Hubbard squash; celery, asparagus, peanuts as well as sweet and Irish potatoes and berries of every variety including blackberries, raspberries, Logan berries, Himalaya berries, strawberries, and gooseberries. The fruit orchard contained apple, peach, pear, apricot, plum, prune, fig, and almond trees as well as cottonwood and Carolina poplar shade trees. The Age writer concluded his visit with a “bountiful” dinner at the Eglington house described as being surrounded “by lawns and flowers--pansies and old-fashioned sweet pinks...with a hammock on the broad veranda.” His visit convinced him that Las Vegas were living in a “land of prosperous ranches and that the things dreamed of as vague possibilities in the early Las Vegas days are now the commonplace everyday facts of life.”⁵⁵

In the early 1900s, as one ranch after another attracted local interest, ethnic contributions to the valley’s agricultural development also became evident. South of the Eglington Ranch and to the south of Green Valley, Italian immigrant Manuel Champo bought a small ranch at Cow Springs. In 1903, before arriving in Las Vegas, Champo had made his way to Mercur, Utah where he later married an Italian woman. He worked at a variety of jobs including mining in Utah, working for the railroad in Sparks, Nevada, and bartending at the Union Hotel in Las Vegas. His wife also worked at the hotel as a cook for the predominantly male boarders who lived on the premises. The Champos eventually earned enough money to buy a homestead at Cow Springs where they took up farming. Like most of the valley’s ranchers, they raised a variety of fruits and vegetables, including

grapes, melons, onions, peppers, asparagus, and garlic. And like most of the local growers, Champo also peddled his produce in town during the early morning hours. Eventually, he earned enough to buy a town lot. In 1921, a major rainstorm swept through the valley flooding Champo's Cow Springs Ranch and ruining his crops. As a result, Champo gave up commercial agriculture and bought the Green Lantern Bar near Block Sixteen which he operated successfully for several years.⁵⁶ As Las Vegas became an important town, more farmers who began with urban jobs to finance their move to agriculture, returned to city work later in life.

Of course, the Champos were not the only Italian farmers in the valley. Vincent Matteuci farmed at the Cottonwood Ranch located in the Arden-Blue Diamond area. The Matteuci family acquired the ranch around 1912 from Charlotte Rockwell, a widow from New York with three sons-- Leon, Earl, and Floyd. According to Leon Rockwell, the ranch was famous for its groves of peach trees. Rockwell's mother canned the "Indian" peaches, as they were called, and became locally well-known for her fresh peach pies. The Wilson brothers from the neighboring Sandstone Cattle Ranch were fond of Mrs. Rockwell's baking and often stopped by to visit on pie-making day.

Prior to living at the Cottonwood Ranch, the Matteucis, including Vincent, his wife Mary, and their three sons and a daughter, lived in the Arden precinct near the gypsum mill where the family raised fruits and vegetables. The surplus was sold on the local market. As had been the case in Northern Nevada mining areas in the latter nineteenth century, Matteuci worked in milling and agriculture. Indeed, Matteuci toiled at the Arden Plaster Company along with one of his sons. After the Matteucis moved to the Cottonwood Ranch, the Review followed their agricultural efforts. In August 1914, the newspaper reported that Matteuci had grown a crop of string beans measuring a respectable thirty inches in length and had sent a sample to town for display. By 1920, Matteuci was ranching full time, employing two of his sons as farm laborers as well as a servant from Mexico. During Prohibition Matteuci's son Victor, like Champo, owned and operated a Las Vegas bar called the Star Saloon.⁵⁷

Another immigrant, David Lorenzi of France who farmed north of town, was

attracted to Southern Nevada for its healthful climate. The West drew thousands of healthseekers; climate was also a factor contributing to western economic development. Town boosters in California, a place described by Mark Twain as “so healthy that you had to leave the state to die,” as well as in Arizona, Nevada, and other sun-belt regions, often used the area’s mild weather as a promotional device to attract settlers. In 1913, for example, the Las Vegas Chamber of Commerce issued a pamphlet describing the Las Vegas Valley as a “poor place for doctors and undertakers. Such a climate spells health for young and old...[where] babies grow fat and graybeards prolong their life....[where] rheumatism sufferers forget their pain.and malaria doesn’t exist.” Moreover, the chamber also emphasized that “a climate that agrees with mankind agrees with the things mankind wants to raise,” and offers perfect conditions for fruit and vegetable growing as well as for a thriving poultry and livestock industry. As a result of spirited booster activities to attract newcomers, many settlers like Lorenzi, relocated to fledgling communities throughout the West to regain their vigor in a warm healthful atmosphere. ⁵⁸

In September 1911 Lorenzi, trusting in the honesty of the claims made by Las Vegas’s town boosters as well as in the new community’s potential for growth, arrived on the railroad to buy a farm in the Las Vegas Valley. He had lived in several other western states before relocating to the valley where he had been a farmer and was already familiar with western-style agricultural practices. He had also developed a good eye for locating land with crop potential. Lorenzi chose a promising site two miles north of town, with a heavy growth of brush and mesquite, thus indicating that water was near. He purchased the eighty-acre property near the railroad tracks and began preparing the land for cultivation. Lorenzi cleared away dense vegetation, except for a few mesquite and willow trees, planted a variety of vegetables and fruit trees, including grapes, cantaloupes, tomatoes, and alfalfa and, after the spring on the property proved inadequate, drilled an artesian well for irrigation. A year later, Lorenzi married Julia Moore and, like Paradise Valley Rancher Frank Matzdorf who owned the Overland Cafe, pursued a second occupation in the restaurant business until the farm could support the family. In 1912, the couple opened the Oasis cafe in town, serving sandwiches and other light fare. They later

added a confectionary business called the Palms offering fountain treats and candy.

Lorenzi, after learning of a St. Thomas farmer's success with peanut-growing--a promising new crop for Clark County--purchased a half-ton of peanuts for his candy store.

By the 1920s, Lorenzi had expanded the Oasis menu to include fresh fruit and vegetables from the farm and hired Mormon girls from rural districts to serve as waitresses. As a result of Lorenzi's concern for quality and friendly service, the town's elite considered the Oasis the finest restaurant in town in which to spend a sociable dinner hour. His efforts to provide an enjoyable dining experience for his patrons and offer them a respite from daily concerns soon transferred over to the community-at-large. In 1922, following the pattern set by Harry Beale and Walter Bracken who managed the railroad's Las Vegas Ranch in 1906 as a "country" retreat for town residents and James Ladd who converted the reservoir on his farm into a swimming pool and opened Ladd's Resort, Lorenzi turned his 80-acre farm into a recreational site for Las Vegans by adding a swimming pool, a band shell for outdoor concerts, and a man-made lake.

In 1926, after the addition of a dome pavilion, Lorenzi's Resort celebrated its grand opening on the 4th of July with a fireworks display (an annual event for many years). Local newspapers, in typical booster style, touted Lorenzi Lake as "a real oasis in the desert." And one bystander described the resort as another "good example of how the desert may be transformed into a thing of beauty by devoting time and painstaking care in the growing of vegetation" to enhance nature. In 1929, the resort expanded its resources to include a larger pavilion, a 90-by-140 foot swimming pool with dressing rooms, and two lakes covering twelve acres. Lorenzi's Resort (now Lorenzi Park on Washington) remains one of Las Vegas's most notable landmarks and maintains one of the largest artificial bodies of water in the city.⁵⁹ Although Lorenzi achieved notable success in agriculture, he used his land as a stepping stone, like Champo and others, to finance other economic ventures. In time, business interests in town replaced ranching and farming as primary activities and agriculture assumed a secondary position. One immigrant group, however, did not choose urban business over rural farming.

In addition to Lorenzi, Champo, and Matteuci, other immigrant settlers in Southern

Nevada were making progress. Like Europeans, Asians migrated West for economic reasons, but unlike white immigrants, they often became the victims of racism. As a result, many Asians relocated to less populated areas to escape from the growing hostility directed against them. By 1914, several Japanese farmers including Yonema “Bill” Tomiyasu who owned a Paradise Valley Ranch, Thomas Sakai who rented land near Shadow Lane, and a tenant farmer named “Charlie” who leased twenty acres from dairy farmer George Ullom were establishing agricultural roots in the Las Vegas Valley. In addition, at least ten other families farmed ten acres or more on leased or owned land. Tomiyasu, however, became the most successful as well as the town’s leading authority on desert horticulture.

Tomiyasu, a California resident, first visited Las Vegas in 1914 to investigate agricultural opportunities at the invitation of Malachi Riley, local entrepreneur as well as town booster. Riley’s salesmanship certainly piqued Tomiyasu’s interest in Southern Nevada, but it was more likely prompted by a renewed outbreak of racism against the Japanese in California. Since the early twentieth century, American resentment against Asians had been on the rise along with California’s growing hostility against the Japanese. To defuse anti-Asian sentiments, the government passed a series of exclusionary acts restricting Asian immigration as well as access to jobs in the burgeoning corporate economy. Thus limited to employment in less lucrative and marginal occupations, especially truck farming and the nursery business, the Japanese in Los Angeles and elsewhere made agriculture their specialty. Using the intensive labor skills developed by peasant farmers on their native island, as well as other progressive techniques, the Japanese achieved notable economic success.

However, their success only inflamed the hostility already directed against them. California’s white small farmers, in particular, as well as labor, resented the competition and agitated for political action. In response, the state enacted a series of alien land laws between 1913 and 1920 which banned many Japanese from purchasing or leasing land. As a result of California’s harsh restrictions on property ownership, several Japanese families including Tomiyasu sought farms in Southern Nevada where more liberal land laws were in effect as well as a less prejudicial environment.⁶⁰

In May 1914, the Review ran a Reno Gazette editorial noting the influx of Japanese into the southern region. The northern-based newspaper announced that “the Japanese are gaining a foothold in Nevada due doubtless to the unfriendliness of California lawmakers. In the vicinity of Las Vegas a considerable acreage is being tilled this season by Orientals and more brown men are expected before the year is ended.” The article proceeded to reassure those who evinced concern over an Asian invasion of Nevada, as government reports indicated that the number of Japanese male arrivals into the United States would not exceed departures by more than 500 per year. In any case, their contributions to the agricultural development of the state using the “shrewdness, economy, and thrift of the busy little Jap,” would more than compensate.⁶¹ Because Southern Nevadans considered the production of food for local consumers and the development of a sound agricultural economy a primary concern between 1905 and 1930, they welcomed the Japanese farmers from California, including Yonema “Bill” Tomiyasu who had first visited the Las Vegas Valley in 1914.

In 1916, Tomiyasu, after anticipating the outcome of Southern California’s volatile political climate and assessing the feasibility of desert farming, had obtained a \$1,200 loan from the local bank and acquired the lease on James Passno’s 160-acre ranch in Paradise Valley. Tomiyasu, like many new farmers, also worked as a farm hand for Tom Sakai while developing his own property. By the 1920s, Tomiyasu was able to buy his own Paradise Valley ranch (future site of the Sierra Vista Rancheros housing development at Warm Springs Road and Tomiyasu Lane), paying \$44,000 for the 160-acre property. He planted 120 acres with a wide variety of crops including corn, tomatoes, carrots, celery, asparagus, lettuce, melons, cantaloupes, and other crops. He also raised grain--millet and alfalfa--as well as chickens, turkeys, and hogs. Tomiyasu sold fruits and vegetables and other farm products on the local market, including restaurants and grocery stores, reportedly supplying as much as 50 percent of the local demand for fresh produce in the 1920s and 1930s. In the 1920s, he had also established a second ranch on the Colorado near Searchlight, fifty miles south of Las Vegas, with Fred Haganuma. Their ranch grew cantaloupes and other melons, as well as vegetables, which helped to satisfy the demand.

He also shipped vegetables to distant locales including Kingman, Arizona and Cedar City, Utah and, along with McGriff Orchards, furnished fresh fruit for the Union Pacific's dining cars. The 1930s Boulder Dam project, with thousands of employees needing to be fed, also created an additional market for Tomiyasu as he became a major produce supplier for their commissary.⁶²

Tomiyasu's remarkable success with farming, as demonstrated by the number of markets he serviced, encouraged him to explore new avenues. Following the pattern set by earlier farmers, he experimented with new crops as well as different irrigation techniques and other "scientific" farming methods--a developing trend in the 1920s. Farmers and ranchers throughout the American farm belt considered scientific farming--crop rotation, managed application of water for irrigation, soil surveys, record keeping, etc.--a way to increase the efficiency of farming and maximize profits. For example, Tomiyasu segregated part of his ranch for experimental purposes where he tested growing times, different row patterns, and irrigation systems for efficient ways to hydrate desert plants, and meticulously recorded the results in a farm diary. And like Helen Stewart, who also kept a farm journal, Tomiyasu dispensed planting advice to other farmers culled from the information he had gathered. He soon gained a reputation as the valley's resident agricultural expert. Ironically Tomiyasu, although an enthusiastic practitioner of scientific agriculture, did not own a tractor or any other farm machinery until the late 1930s.

Although Tomiyasu had established a lucrative as well as educational farming operation in the Las Vegas Valley, like many farmers in the area, he also experienced his share of setbacks. For example, in June 1920, Tomiyasu and Tom Sakai were arrested for allegedly butchering a neighbor's cow worth \$500. Although forced to undergo trial for the offense, they apparently received fair treatment and were acquitted. In May 1928, as a result of heavy rains, the swollen waters of the Colorado flooded prime ranching sections along the river bank, including Tomiyasu and Haganuma's ranch near Searchlight. They lost their entire melon crop, worth several thousand dollars, after rabbits driven inland by the rising water stripped the cantaloupe vines bare. Area ranchers had already observed an unusual number of rabbits that year and the Colorado at flood-stage had only exacerbated

this agricultural nuisance. In the 1960s, Tomiyasu lost his ranch in Paradise Valley after a series of legal battles over the mortgage and the family was forced to move. Despite his financial difficulties, Tomiyasu remained undaunted and started again. He continued farming, albeit on a smaller scale, growing nursery stock for community residents until his death in March 1969. Tomiyasu and other immigrant's determined efforts to farm exemplify the important role played by immigrants in Southern Nevada's agricultural history. ⁶³

In addition to Tomiyasu and other family-run operations, California's restrictive land laws also attracted Japanese capitalist farmers to the Las Vegas Valley. In January 1914, the Tanigoshi and McBride Land Company purchased the 5,000-acre Winterwood Ranch in Paradise Valley for \$100,000 from the estate of John C. Winters who had purchased the ranch in June 1911. Winterwood Ranch contained several artesian wells, with 600 acres cleared for planting. The Review reported that the Japanese colony planned to grow cotton and cantaloupes in sufficient carload quantities to put on the market within the next few years. The new owners of the ranch issued a pamphlet, printed in Japanese, showing a number of views depicting familiar Las Vegas Valley ranches and garden scenes. In July 1914, Tanigoshi and McBride's descriptive promotional literature resulted in the sale of several tracts of land to seven Japanese farmers. In addition, Mal Riley, serving as land agent, along with Helen J. Stewart and W.E. Hawkins also sold 200 acres of their own investment property on the Winterwood Ranch to a party of Japanese from California. The Age, ever supportive of all efforts to cultivate Las Vegas Valley lands, repounded favorably to the news, and remarked that "the important feature of the deal so far as Vegas is concerned is that this land will be immediately brought under cultivation." Like most ambitious large-scale farming projects initiated in the Las Vegas Valley, extensive cultivation on the Winterwood Ranch faltered due to insufficient capital. Before California investors purchased the ranch in the 1920s, intending to put Las Vegas on the agricultural map, ranchers also successfully experimented with cotton. Outside difficulties, however, prevented any lasting results. ⁶⁴

Winterwood cotton along with Matteucci's green beans, Mrs. Rockwell's peach

crop, Eglington's abundant variety of fresh fruits and vegetables, Tomiyasu's cantaloupes, as well as the output of other valley farmers and livestock ranchers, illustrates that the Las Vegas Valley's warm sunny climate was conducive to agriculture which comprised a major part of the region's economy before World War II. As evidence of the valley's productivity became increasingly evident, local ranchers and farmers struggled to put the growing agricultural economy on a more solid foundation.

Between 1910 and 1920, they patiently experimented with a wide variety of crops with a view towards developing a staple product. Although alfalfa, cantaloupe, and peaches appeared the most promising, they also tested other crops. Southern Nevada crop-growers had successfully raised an assortment of marketable fruits and vegetables, but they still sought a cash crop. Judge Kenneth Jackson, a former Southern Nevada land owner now based in San Francisco, suggested rice-growing. Although Jackson sold his local property in 1911, he continued to maintain an interest in the valley's agricultural possibilities. The idea of rice-cultivation evolved from the valley's rapid development of irrigated farming. As early as 1906, Texas and Louisiana planters had demonstrated the value of irrigation to large-scale rice-growing. Statistically their results showed that the production of rice increased from 179,919,293 pounds in 1899 to 869,426,800 pounds in 1904. Texas in 1899 had 178 acres of rice with 376,500 acres by 1904--all due to irrigated farming.

California, even more than the South, influenced the effort. Jackson observed that California's rice-growing industry, although in its infancy, was showing great promise. He reported to the Age that the "essential things for the successful culture of rice are plenty of water and a hot climate. The soil is not so important as the rice grows right on top...and any kind of soil will do if flooded with water." The Age, in turn, commended Jackson for his ideas on crop experimentation and hoped that the valley's farmers would take an interest in rice-growing. "Pop" Squires reminded his readers about the importance of rice to some southern states as well as the role of wheat and corn in the northwest as principal sources of agricultural prosperity and "it may prove to be so in Clark County if taken up earnestly."⁶⁵

In addition to rice, Las Vegans received advice concerning tobacco and cotton. Like rice, these two staples were also typically southern-style products that had been successfully grown by Mormon pioneers in the Moapa Valley. To encourage local growers, The Review reported in 1909 that a Mason Valley man was again demonstrating the successful cultivation of tobacco in Nevada, remarking that “Well, we’ve got to have something to help keep up our reputation when gambling is abolished !” Valley ranchers, with the exception of Steinman who grew a little tobacco, did not appear to take rice or tobacco cultivation seriously but cotton was an attractive prospect. By August 1910, an experimental crop seeded in June was producing plants three feet high with well-filled pods. In 1912, the Age announced the receipt of a sack of Lone Star cotton seed of the big boll variety from Texas ready for distribution to interested planters. The newspaper invited all ranchers to pick up sample seeds, proclaiming that “all experiments so far have been very successful and it is believed that the Vegas Valley will grow cotton with the very best. Let everybody experiment this season.” Such efforts remained statistically insignificant but illustrate the determination of ranchers and farmers and the enthusiastic support of the local newspapers. More serious efforts to grow cotton “scientifically” followed in the 1920s as part of the ongoing crusade to develop an agricultural economy based on one-crop specialization for commercial purposes. ⁶⁶

Then in 1916, R.H. Schaeffer of the Charleston Hotel suggested beans as a possible cash crop in the desert. He had received a small supply of “Aztec” beans from Prescott, Arizona ready for seeding. The Age reported that the beans were of an unusual size and color measuring 2 and 5/8ths inches in circumference “the long way,” and 1 and 5/8ths inches “the small way” and having a smooth white color. Schaeffer optimistically claimed that the beans had been preserved in Aztec ruins and “brought to light after being hidden for centuries.” He planned to grow the beans bringing twenty-five cents per seed. Exotic plants and seeds like the Aztec beans as well as the date palm became part of American agriculture with the creation of the Office of Foreign Seed and Plants in 1897--a branch of the United States Department of Agriculture. By 1912, the county assessor counted 109 date palm trees in the district. ⁶⁷

The effort to find a cash crop did not end with beans and rice. In 1909, Las Vegas considered another foreign plant as a possible commodity for their burgeoning agricultural oasis. H.A. McCraney, a newspaperman from California and president of the Nevada State Editorial Association, made several trips to the Las Vegas Valley to examine water supplies, land availability, and climatic conditions with the idea of growing eucalyptus trees, an Australian transplant, for timber and fuel on a commercial scale. He reported to the Review that all conditions proved favorable and that he planned to interest “men of capital...who are enthusiastic over the prospect for profitable investment and...willing to put up the money even on an experimental basis.”⁶⁸

Word of McCraney’s visit to Las Vegas and the reason for his interest prompted the Southern California press to respond with a warning to the valley’s potential eucalyptus growers. They cautioned the “farmers who are rushing headlong into a new industry that they may get a burden that they cannot well shoulder.” The Review went on to remind local growers that the Las Vegas Valley has been “‘tried out’ and found to be of unlimited diversity....” Moreover, the orchards are bearing award-winning apples, peaches, pears, and other fruits while the meadow lands are producing cash-ready bumper crops of alfalfa. “We might enumerate hundreds of other farm products that can be raised here and be assured a firm market, so why give our undivided attention to the growing of eucalypti.” Further advice suggested that only the poorer lands should be used for experimental purposes including the growing of eucalyptus trees.⁶⁹

Experimental crop-raising and its results remained an important concern of area growers. Frank Clark, the most actively involved in his Paradise Valley holdings, maintained an avid interest in crop experimentation. In talking to Moapa Valley ranchers, Clark learned that William Murphy of St. Thomas had raised a profitable crop of Bermuda onions. The onions matured quickly leaving the grower time to raise cantaloupes on the same ground. Reportedly, both crops grew prolifically and brought fancy prices in the market. In an attempt to interest Las Vegas Valley farmers in onion-raising, Clark arranged for Murphy to send samples to the Review office for inspection. Both the Review and the Age consistently supported all efforts to develop agriculture in Southern Nevada,

demonstrating the symbiotic relationship between town and hinterland. Clark continued to oversee new crops at the ranch and often spent his time working it. The Review, taking notice, congratulated him on “doing a few day’s honest toil.”⁷⁰ Southern Nevada growers throughout the valley worked tirelessly to raise a wide variety of fruits, vegetables, and grains--all the common “garden varieties.” Foreign or exotic types remained an intriguing curiosity with some adventurous planters engaging in a little experimentation.

The “greening” of the Las Vegas Valley by the larger ranches and farms was complemented on a smaller scale by several home farmers in town. Home gardens also served as object lessons to support all claims regarding the valley’s ability to produce. A writer for the Review after visiting railroad agent and Postmaster Walter R. Bracken’s home--“a model of comfort and good taste”-- reported that “two years ago the sight was as barren and desolate a spot as could be found anywhere....Now Mr. Bracken dwells in the midst of a miniature paradise...with front and back yards carpeted with real grass....surrounded by a hedge of shrubbery...with peach and fig trees, grape vines--all bearing fruit, flower beds, climbing vines and lots of shade.” He further emphasized that what can be accomplished on a small scale can be done equally well on a large scale. “If this wonderful transformation can be wrought on a 50-foot lot, what, then, is to prevent it being done on 50, 500, or 5000 acres?”⁷¹

Along with Bracken’s “miniature paradise,” the homes of Harry R. Beale, John S. Park, and Ed Von Tobel also served as models of garden productivity. In 1911, Beale’s asparagus, harvested in March, elicited comments from the Review which reported that “no other asparagus has yet appeared in the local market and this early maturing of the vegetable indicates what can be accomplished with Las Vegas soil and climate.” Beale’s home place grew a variety of vegetables, and fruit trees as well as flowers and shrubbery and represented a “valuable object lesson to those interested in the possibilities of the soil in this valley.” John Park, in addition to owning Park Farms, maintained a model residence in town. Town boosters touted his home as an example of desert fertility with its bower of climbing roses, flourishing umbrella and cottonwood trees, colorful flower beds, and expansive lawn.⁷²

With fruits and vegetables the local staple by default, valley ranchers and farmers supplemented this output by expanding their livestock operations. In 1914 Park Farms, with thirty acres cultivated and ten acres cleared, expanded its ranching operations to include the breeding of thoroughbred cattle, hogs, and poultry. Dr. Park formed a business partnership with Fred G. Park, (possibly a relative from Missouri where Park's father John was born), who took over the ranch's management and operation, leaving him free to return to his dental practice full-time. Stockraising began in earnest in January with the railroad bringing a carload of sixty Berkshire and Poland China sows and five Holstein cows from Platte City, Missouri. The hog shipment increased the complement of Berkshire herd boars and brood sows already secured by Park Farms. The Age heralded the arrival of the Missouri livestock as "marking an important step in the stockraising industry of the Vegas Valley." The additional number of hogs raised at Park Farms added to the 1,016 mature hogs and 436 spring pigs, valued at \$9,557, recorded by the 1910 agricultural census. ⁷³

Another ranch well-adapted to stock-raising was the 560-acre Glendale Ranch at the head of the Las Vegas Wash near the Colorado River. Allan D. Bishop acquired the ranch located twelve miles southeast of Las Vegas around 1908. The Bishop family arrived in Las Vegas from North Dakota in 1905 and, like the Russells, most likely received a hefty profit from the sale of their North Dakota farmlands. The Bishops, with five children, lived in the tent city on the southern edge of town before establishing their ranch. In 1910, Bishop formed the A.D. Bishop Farm Company of Nevada to develop real estate for farming purposes. A year later, he formed a partnership with Reverend Father Alfred Quetu, owner of the Avalancha Ranch near San Juan Capistrano, California, to develop the 840-acre Glendale Ranch by constructing an eight-room house, stables, and an electric plant powered by water to furnish energy for lighting and other activities. Due to the natural pasture lands located on the site, the ranch was ideal for stock-raising and Bishop was in the process of stocking the range with blooded horses. By 1915, the Glendale facility was a major horse-breeding operation with 135 acres under cultivation. ⁷⁴

In addition to Bishop's blooded horses and Park's thoroughbred hogs, sheep also

contributed to the valley's economy after Charles E. Kaiser shipped in a thousand head from Northern Nevada to whiten the landscape. The expansion of the sheep industry in Nevada was at its height just before and after the turn of the century. In 1910, the number of sheep in Nevada peaked at just over one million. In Clark County the number of sheep recorded was 8,100 valued at \$61,000. ⁷⁵

In 1909 Kaiser, owner and President of the Kaiser Livestock Company of Elko, announced plans to commence operations as a general livestock and real estate business in Southern Nevada. The company closed its offices in Elko, sold its cattle ranges, and relocated to Las Vegas on the Thomas block. The Review noted that the Kaiser cattle interests in the north were among the largest in the state and that Kaiser planned to establish his livestock business in Southern Nevada on a large scale. The newspaper heralded Kaiser's arrival as "the beginning of another great industry for the Vegas Valley--a realization of another of the big assets which many of the people who long ago pinned their faith to Vegas Valley always believed would materialize."

In preparation for the move south, Kaiser sent the company's engineer, G. B. McBride, to survey local water supplies, range lands, and ranch facilities. Kaiser subsequently acquired grazing privileges on the Charleston Forest Reserve, as sheep raisers practiced transhumance--grazing their sheep in the mountains in summer and in the valleys in winter. This practice angered John Muir who denounced "sheep in the western mountains [as] hoofed locusts who devastated the fragile mountain environment." ⁷⁶ But no one in Las Vegas voiced a concern. The Kaiser Livestock Company also applied for permission to appropriate the public waters of the state of Nevada from the Muddy River, at Oak Creek Springs, and at Rock Spring. The company intended to use the waters from the Muddy to generate electrical power and for commercial use and the spring water for irrigation and livestock purposes.

In October 1909, Kaiser purchased part of the Old Wilson Ranch from Jim and Tweed Wilson, including all their cattle and livestock, and secured their range and ranch facilities for cattle and sheep-raising. Like most livestock raisers in the arid and semi-arid West, Kaiser acquired only the land necessary to control water sources. In preparation for

the first shipment of sheep, an outfit of teams and wagons was enroute to the Wilson Ranch from the winter feeding range east of Tonopah and McBride drafted plans for ranch improvement projects. Improvements on the property included the construction of pipe lines, watering troughs, buildings, and utilities as needed. In addition, the Salt Lake Railroad Company planned to build an expanded system of loading corrals at the Arden station to facilitate the loading of livestock.

In April 1909, Kaiser Livestock shipped 10,000 head of sheep attended by fifteen herders on the Las Vegas and Tonopah Railroad line from Goldfield to the Las Vegas Valley. The company also sold an additional 12,000 head including lambs for an average price of five dollars per head. The sheep sent to the Wilson Ranch had spent the winter feeding off the company-operated range lands near Tonopah and were ready for the spring clipping season. Kaiser's 10,000 sheep, with only one loss from a rattlesnake bite, were successfully sheared at the spring clipping. Their heavy winter coats yielded 75,000 pounds of wool which brought about a revenue of fifteen thousand dollars. In 1916, the Board of County Commissioners, anxious to tap the sheep industry for additional revenues, levied a sheep tax of .006 cents a head. After Kaiser's sheep-shearing, the flock spent the summer grazing on the nearby Charleston range.⁷⁷ Kaiser's move to establish a sheep industry in Southern Nevada as well as the efforts of other livestock ranchers served to heighten the mood of agrarian optimism already begun by valley farmers and their abundant harvests.

Between 1907 and 1915, as ranches and farms dotted the landscape, the future of agriculture in the Las Vegas Valley and surrounding hinterlands appeared promising. Pioneer settlers, including local businessmen, miners, immigrants, women, Mormons, Eastern capitalists, Midwestern farmers, and other migrants had invested large amounts of time and money to follow ranching and farming in Southern Nevada. As they filed on homesteads, drilled for wells; cleared, planted, and fenced the land; built shelter for their families, coped with adversity, experimented with new crops and touted their results from the pages of the local newspapers, they were following the pattern set by earlier homesteaders in rural communities throughout the West. During the first two decades of

the twentieth century, other forces also shaped Southern Nevada's developing agricultural economy. World War I in Europe, progressive era reforms to assist farmers, the application of scientific farming methods and business expertise, and a local economic crisis all served to increase the efforts of valley ranchers and farmers to create a "garden in the desert."

CHAPTER 5

PROGRESSIVE ERA FARMING, 1905-1929

After visiting Clark County in 1916, Reno resident Henry Alciatore, meteorologist in charge of the United States weather bureau for Nevada, remarked that Nevadans had a bad habit of referring to the southern portion of the state as a desert. He observed that while “it is true that a few spots are arid, the southern end of Nevada in Clark County is a garden spot.”¹ By the early twentieth century, farmers and ranchers throughout Southern Nevada and other areas of the West, infused with the spirit of the reclamation movement, accomplished marked agricultural improvements on marginal lands throughout the arid regions. Their determined efforts to develop water for irrigation transformed barren landscapes once considered worthless for agriculture into cultivated gardens. In addition to irrigated farming, other forces also intervened to modify western agricultural practices. The efforts of Las Vegas Valley ranchers and farmers to apply progressive era reforms, scientific farming techniques, demonstration education, and business expertise to the development of agriculture, as well as their response to the outbreak of World War I, characterized the history of ranching and farming in Southern Nevada between 1905 and 1929.

In the late nineteenth and early twentieth centuries, western agricultural development had assumed an increasingly important position on the federal government’s political agenda. As a result, Congress enacted a series of Progressive era reforms designed to aid American farmers and alleviate agrarian discontent. Government interest in agriculture originally began during the Civil War after the Republican party passed three measures to assist farmers: the 1862 Homestead Act, the Morrill Land-Grant Act, and the act creating the Department of Agriculture (after 1905, these mandates will impact Southern Nevada). Although an auspicious beginning, with the exception of the 1887 Hatch Act and

the efforts of the Populists, government intervention declined until the Progressive era. ²

By the 1890s, American farmers were experiencing worsening economic and social conditions brought on by overproduction, falling prices, increased competition, excessive railroad rates, high tariffs, and mounting debts. In protest, they initiated a mass movement known as populism, described by one historian as “the last united stand of the country’s agricultural interests.” To give political clout to their demands, farmers joined forces with labor and reform groups and organized the Populist Party (People’s Party) to initiate new policies for agriculture. Although the Populists lost the political struggle, many of their proposals offering financial and educational assistance for the farmer became law during the Progressive Era. ³

In Nevada, however, despite the federal government’s disinterest in agricultural development or agrarian reform between the Civil War and the beginning of the Progressive Era, state interest in farming continued, beginning with education. Under the provisions of the 1862 Morrill Land-Grant Act, Nevada received nine thousand acres to establish an agricultural and industrial college while the 1864 constitution provided for a state university. However, the legislature did not activate the constitutional or Morrill Act provisions until 1874 with the opening of a university in Elko, a small town in eastern Nevada. By 1885, Elko’s inability to support the school compelled the state legislature to move the university to Reno. During the same year, Nevada also passed the State Land Act of 1885 which provided easy terms for acquiring 640 acres of public land, established the State Agricultural Board, and held the first state fair in Reno. Moreover, when the University of Nevada officially opened in 1887 as a collegiate institution, one of its four schools was the School of Agriculture (changed to the College of Agriculture in 1914), thus reflecting one of the state’s main economic interests along with mining. The University of Nevada’s College of Agriculture under its Public Service Division supervised state agricultural experiment stations and agricultural extension work. Under the provisions of the 1887 Hatch Act, the school of agriculture established experiment stations to serve as research facilities. The staff, comprised of agricultural college graduates, conducted research in botany, entomology, and chemistry, as well as field tests and

laboratory studies, thus collecting vital information which had an important impact on farming in Nevada. The state printing office published the agronomists' findings in a monthly sixteen-page bulletin called "Better Farming" and mailed it free of charge to anyone requesting a copy. The experiment station also maintained a library with books and pamphlets on agriculture. Hatch funding paid for the library materials as well as the printing costs for "Better Farming." In 1901, the agricultural station also established Farmers' Institutes to send members of the staff on lecture tours to all farming centers in Nevada, thus marking the first "offcampus" teaching by the university.⁴ Farmers and ranchers in Southern Nevada, however, living in the most isolated part of the state, were unable to take advantage of the university's educational programs or the services of an agricultural experiment station until 1905.

In March 1905, the Twenty-second Legislature finally decreed the establishment of an agricultural experiment farm in the "semi-tropical" part of the state. Governor John Sparks appointed a three-man committee to investigate the lower Muddy Valley, where local farmers had achieved remarkable crop results. Due to the abundant harvests of fruits and vegetables, including peaches, pears, apples, grapes, figs, apricots, pomegranates, corn, sweet potatoes, and almonds as well as staples of cotton, tobacco, alfalfa and other grains, the commission designated Logan as the site of the branch agricultural farm. The Lincoln County Experiment Farm (Clark County after 1909), also called the Logan Experiment Farm, received eighty acres of land donated by Logan and Overton residents and \$10,000 in Hatch funds to finance their experimental work for two years. In 1906, as a supplement to the Hatch Act, the government passed the Adams amendment providing for the complete maintenance of the stations, including agricultural research projects, lab equipment, and other necessary supplies. All other expenses would be paid out of Hatch funds. As a result of the Adams amendment, the Logan station received an additional \$5,000 in June 1906, with the amount to increase \$2,000 per year up to \$15,000. The total funding received from the Hatch Act and the Adams supplement amounted to \$30,000 per year which doubled the amount received by the agricultural experiment stations.⁵

With all expenses covered, workers at the Logan station spent the time between

November 1905 and January 1907 clearing away a dense growth of mesquite and quail brush, leveling fields, and fencing the land before making their first attempt to grow crops. Due to the Muddy Valley's long growing season, scientists at the Logan Experiment Farm were able to complete three plantings (spring, summer, and autumn) yielding 7 tons of alfalfa, 43 bushels of millet, 45 bushels of field corn for grain, 200 bushels of potatoes, 333 bushels of sweet potatoes, and 30,000 head of lettuce and 8,000 head of cabbage per acre--a respectable first-year's harvest. In 1912, the farm also brought in a shipment of blooded stock from Los Banos, California, paying \$300 for a Holstein Friesian cow and \$600 for four yearlings. The agronomists planned to breed the cows, noted in dairy history as "the latest world's record breakers," as a means to upgrade the valley's dairy cattle by increasing the quantity of butter fat in their milk. In September 1908, the produce and livestock raised on the Logan farm also made a blue-ribbon showing at the Nevada State Fair in Reno. Out of the 35 products placed on exhibit, 24 won first prize including a registered Holstein calf. Ranchers and farmers throughout Clark Country often participated in state and county fairs and expositions, displaying their produce as a promotional ploy to draw attention to the agricultural possibilities in their state. By 1916, the scientists at the farm were experimenting with the cultivation of olive and almond trees. Because both kinds grew vigorously and produced heavily, area growers made plans to plant large orchards of each type. ⁷

In addition to cultivating proven crops, the Logan Farm, in keeping with its scientific and educational purposes, also tested new crops to determine their suitability for Southern Nevada's agricultural conditions and offered remedies for those showing poor results. The farm's effort to grow a new type of grain called Dwarf Milo was of particular interest to area stock-raisers who expended large sums of money to feed their animals. According to Orville W. Jarvis, Superintendent of the State Experimental Farm, Milo was a heavy-producing grain well-suited to arid climates and "useful as a feed for horses, cattle, hogs, or chickens ...similar to Indian corn in nutritive elements...and valuable for its grain and not as a forage plant." Experimentation and careful seed selection over a period of years created a strain of drought- resistant sorghum grain, capable of producing large yields

and maturing in short growing seasons. The station provided information regarding how the seeds should be planted and when, and the Age newspaper office served as the distribution center for seed samples. Once again, the town newspaper provided a conduit through which Southern Nevada's ranchers and farmers could participate in their community's agricultural development. Like the local newspapers, town boosters also continued their efforts to help farmers. ⁸

In 1909, tomatoes in the Las Vegas Valley were making a poor showing and, as a result, Judge M.S. Beal, Secretary of the Las Vegas Promotion Society, contacted various agricultural stations to determine the cause. Founded in 1907, the Las Vegas Promotion Society counted the town's first mayor Peter Buol and other prominent businessmen-farmers among its 44 members. As businessmen and as farmers, they were closely involved with the valley's economic growth as well as in finding solutions to agricultural problems. Shortly after its organization, society members Beal and Buol had initiated plans to promote the Las Vegas Valley's agricultural potential and opportunities by mailing letters describing its water situation, climate, types of crops grown, markets, and other relevant data to each state's agricultural college along with a copy of the Las Vegas Age. Beal and Buol were hoping to attract "enterprising young farmers with grit and application." With this intent, the society also mailed 5,000 leaflets to California for distribution. Not only did they promote the agricultural settlement of the valley, but the society also assisted ranchers and farmers who were experiencing problems.

In July 1909, Secretary Beal contacted the Logan Experimental Farm on behalf of the valley's farmers to find out why the tomato crop had failed. He described the plant's failure to thrive after reaching a ripened stage, noting that insects and worms were not the problem. Beal reported that one truck farmer had lost 500 plants valued at \$500. After studying the situation, Superintendent Roy Filcher determined that the tomatoes grown in the Las Vegas Valley were affected with a summer blight known as root fungus which was also causing difficulties for Moapa Valley ranchers as well as California growers. Filcher advised Beal that the station was conducting experimental plantings in order to produce an immune strain and prevent further tomato blight. The experimental station's tomato studies

eventually resulted in better seed strains, thus demonstrating the importance of experimental work to the region's agriculture. With the development of hardier plants and increased crop yields, mechanized processing of canned tomatoes and their by- products including ketchup, chili sauce, and tomato paste also proved advantageous. Mechanization lowered the production costs and the lighter weight of the finished product decreased the railroad's transportation rates. As a result, tomatoes became a large contributor to farm income in many agricultural sectors.⁹

By 1917, Southern Nevada's tomato growers were achieving marked results with their production. As a result, Overton growers built a larger concentrating plant to replace the smaller one with the capacity to can 30 to 40 tons of tomatoes. They considered the old plant inefficient because it produced too much waste and could only produce tomatoes of a certain size. Processing consisted of reducing the ripe tomatoes to a pulp, removing the seeds, and canning the thickened results into five gallon cans. Moapa Valley farmers operated the cannery and sold the finished product to large factories who made ketchup and used the tomatoes for different flavorings. The profits came from the tomato pulp, with the seeds bringing 6 to 7 cents per pound, and the 50 percent savings in railroad freight costs due to the now concentrated plant. Tomato farmers planned to cultivate 150 acres in the fall and plant it with a spring crop.

Town boosters also used the proposed availability of nearby canneries, future sugar refineries, and other food processing plants in the area as another means to promote the agricultural development of the Las Vegas Valley. For example, the chamber of commerce announced in its 1913 promotional pamphlet that funds were in sight to erect a cannery, thus providing an effective means of using surplus fruits and vegetables. As a result, valley produce growers would save thousands of dollars annually. In addition, the high yields achieved by sugar beet farmers would induce the building of a sugar refinery. Along with the chamber of commerce, a spokesman for the Southern Pacific Railroad also suggested that Nevada farmers raise and can locally-grown products like tomatoes, beans, corn, asparagus, and other produce. He further stated that "I am convinced that if the moneyed people would get down to business with the farmers the greatest prosperity

would be shown.”¹⁰

In 1910 town boosters led by Peter Buol and Judge Beal made a request to the government for the establishment of a second agricultural experiment station in Las Vegas. In response, Levi Chubbuck from the United States Department of Agriculture and Bureau of Plant Industry arrived in Las Vegas in June 1910 to investigate the merits of a government experiment station in the Las Vegas Valley. Chubbuck's credibility for the job was established in 1902 after the Office of Indian Affairs appointed him Inspector of Farms and Farming Organizations. Chubbuck's first task, according to the Indian office, was to “invigorate the farmer corps and promote crop agriculture on the reservations.” As a result, Chubbuck spent the majority of his time in the southwest where he became an “apostle of irrigation” as well as a supporter of dry-farming techniques. He also advised farmers to consult with land grant colleges and experiment stations in their regions for assistance with their problems.

After touring the valley's principal artesian wells and ranches with Paradise Valley rancher Wixon, Chubbuck expressed surprise over the progress made in such a short time. He stated that in his opinion “the Vegas Valley presented opportunities equal to any he had seen in his investigations covering all the far western states.” Despite Chubbuck's favorable report on valley conditions and his promise of aid to Nevada farmers, limited funding brought the project to a standstill and a second station was not organized until 1925. In the meantime, George Hardman, Oregon Agricultural College graduate and assistant agronomist at the University of Nevada, arranged his teaching schedule to devote alternate semesters and summers to extension work in the Las Vegas Valley.¹¹ Under this arrangement, Hardman and his assistants were able to provide basic information to valley ranchers and farmers and supplement the work of the Logan station.

In 1925, Congress allocated additional funding for the agricultural experiment stations and the government reopened an investigation into establishing a facility in the Las Vegas Valley. Since 1922 Professor Hardman and Clark County agent John Wittwer had carried out small-scale projects on a limited budget in the Las Vegas Valley. They conducted experiments with fertilizers and soil content and measured the water levels in

local wells. Without a permanent station, however, they were forced to improvise using pots, old tin cans, or other usable containers for their tests.

Despite such limited resources, Hardman and Wittwer obtained promising results. They also interviewed local ranchers and land owners and collected data on water resources and other pertinent information. Hardman and Wittwer working for Nevada's Agricultural Experiment Station, in cooperation with the Division of Agricultural Engineering of the United States Bureau of Public Roads, planned to study several problems including lack of flow from artesian wells, development of water mounds and springs, reclamation of alkali soil through drainage and cultivation, movement of thermal belts, soil typing to determine crop suitability, and the best methods to distribute and supply water.

Without a permanent facility in Las Vegas, however, Hardman was forced to commute from Reno, at great expense to the University. By 1925, with the allocation of additional government funding and the Union Pacific Railroad's donation of 10 acres of land along with a supply water from the Las Vegas Springs, the valley finally received a second station. Hardman took charge of the facility, next to the Old Las Vegas Ranch, and began to reclaim the land for experimental projects. Funding for the station's agricultural work came from Hatch and Adams appropriations as well as from the sale of the crops grown on the farm. The staff conducted tests on fertilizers and farm manure, donated by Doolittle's Dairy Farm nearby, and studied soil composition, alkali removal, and the use of phosphate for increased crop output. Hardman's station discovered that sufficient watering would leech the alkali from the soil and, with an application of treble super phosphate, the treated soil would produce excellent crop results. For example, phosphate stimulated the growth of alfalfa in Southern Nevada by as much as 100 percent--from 6 tons a year to 12 tons--and clover by 150 percent.

Alfalfa ranchers in the Moapa Valley including St. Thomas, Bunkerville, and Mesquite, as well as in the Las Vegas Valley who treated their crops with phosphate all increased their yields by at least 50 percent. In 1930, Clark County farmers ordered 80 tons of phosphate fertilizer costing less than \$60 per ton for their fields. Valley Supply of Bunkerville received 5 tons, Frehner and Hughes of Mesquite purchased 10 tons, the Moapa Growers Association secured 23 tons for distribution, while Frank Allen at the

Taylor Ranch and other Las Vegas ranchers obtained the remaining shipment. One local farmer praised Hardman and the Las Vegas Experiment Station for their research work leading to the adoption of phosphate fertilization. He stated that if all the agricultural agencies in Nevada including the Clark County Farm Bureau, the Nevada University Extension Service, and the Nevada Agricultural Experiment Station, along with the United States Department of Agriculture, "hadn't accomplished another thing during their existence in the territory served, this one accomplishment...is worth far more than all the cost since their establishment here." Southern Nevada farmers considered phosphate fertilizer the solution to the mystery of Clark County's poor soil conditions. It became the "magic wand" to restore worn-out or run-down farm lands as well as a "soil builder and "mortgage-lifter."

In addition to increasing the alfalfa and clover output, Hardman's phosphate experiments with vegetables, in particular table beets, lettuce, and tomatoes, also showed remarkable differences in quality and appearance. Although Clark County's alkali soil, also known as "gypsoil," was considered unfit by local farmers for crop-raising if left untreated, Southern Nevada shipped it by railroad carloads to California citrus growers who used the soil to enrich their orange groves. With Hardman's work showing that alkali can be flushed out of the ground with ample water and the soil made productive with an application of phosphate, one observer cautioned area land owners not to condemn the land so quickly, "when the actual fact is that with cultivation... and with water near the surface and drainage they are the richest and best of lands."

Hardman's scientific agricultural work at the experiment farm encouraged ranchers and farmers throughout the valley to participate in their own demonstrations and experiments. For example, 15 farmers throughout the valley conducted experiments with phosphate fertilization, leaving half of their land untreated to compare differences in alfalfa yields. In addition, the experiment station published the results of Hardman's work in a bulletin to educate local farmers.

Hardman also kept up with water well measurements on the Las Vegas Ranch. By 1933, the levels were dropping at an alarming rate and the Union Pacific Railroad was experiencing difficulties in furnishing the town's residents with water. As a result, the

experiment station became secondary in importance to the city's main water supply and the farm suffered from a water shortage. By January 1934, a cutback in funding also threatened to close the facility after the government's budget director slashed appropriations by 25 percent. Nevada Congressman James G. Scrugham intervened on behalf of the state's agricultural stations and the budget director rescinded the order. Such a drastic budget cut would have forced Hardman and his staff to close the farm for three months out of the year. The farm's reprieve was short-lived, however, and by the end of the year, the station had closed and Hardman returned to Reno. Hardman's work with phosphate proved invaluable for alfalfa growers, vegetable farmers, and livestock-ranchers. Between 1905 and 1934, Nevada's agricultural experiment stations at Logan and Las Vegas with their staff of experts provided important information and assistance along with encouragement to area farmers. Moreover, they introduced the practice of farming "scientifically" in Southern Nevada during the Progressive era. ¹²

Between 1906 and 1915, the University of Nevada's experimental stations conducted three additional research projects in connection with irrigation, animal diseases, and range management which also added greatly to the store of information available to Southern Nevada's ranchers and farmers. As a result of meteorological studies conducted by Dr. J.E. Church in the Sierra Nevadas, scientists could accurately forecast the amount of run-off from mountain streams by measuring snow levels. His methods were used wherever irrigation was practiced. Nevada maintained 56 weather stations including 14 mountain facilities to monitor snow-fall measurements. In April 1916, the state installed a water-evaporation station at Indian Springs, with the latest instruments, to obtain data in connection with irrigation and water pumping. Under the supervision of rancher Ira Mc Farland, owner of the pioneering Indian Springs Ranch, the station monitored the evaporation of water as well as the snow melt from the Sheep Mountain Range including Mt. Charleston in order to determine the replenishment rate for the region's underground water supply, so vital to the valley's irrigated agriculture. Such findings proved valuable to those who engaged in ranching and irrigation enterprises in Southern Nevada. ¹³

The state established the new Indian Springs installation upon the recommendation

of Henry Alciatore, Director of the United States Weather Bureau for Nevada, who was favorably impressed with the southern-most district. He described the station as one of the best in the state and the Indian Springs Valley as being brought into the “garden class by the development of underground waters and there are no better or more plentiful vegetables or fruit raised anyplace in the country.” As proof of the area’s fertility, McFarland planted 600 pecan trees for commercial marketing. He predicted that the yield per acre would be one of the highest of any crop produced anywhere. In addition to Ira McFarland, other ranchers in the pioneer community of Indian Springs included Judge Peter Somers who had claimed 10,000 acres under the Carey Act, George Hail, operator of the Clay Springs Cattle Company, and Bird Wilson who managed a ranch. ¹⁴

Not only did the Progressive Era herald the age of applied science in farming but also the increased participation of women in the political sphere. Bird Wilson represents the involvement of Nevada women not only in agriculture but in social reform and the suffrage movement. In 1912, Nevadans witnessed a resurgence of the women’s battle for voting rights with the organization of the Nevada Equal Franchise Society. Bird Wilson was an attorney with a thriving law practice in Goldfield and Tonopah as well as the only female stockbroker in the state. She also served as an official court reporter in Las Vegas with district court Judge Somers, wrote a Las Vegas Age newspaper column for women outlining their inequalities under Nevada law and, in 1912, worked with future senatorial candidate Anne Martin to win voting rights for women. By 1915, Wilson was working with Carson City legislators for social reforms: raising the age of consent to eighteen, imposing an eight-hour work day for men and women, changing community property rules, and voicing opposition to capital punishment and the recent enactment of liberalized divorce and gambling laws. After the reforms failed to materialize and, with the twin evils of divorce and gambling legally sanctioned, Wilson remarked that she “had about decided that this is going to be a good state to raise hogs in, but not families, so am going to ranching.” She went on to establish a ranch in Indian Springs but remained involved in political activism. Wilson, like others who engaged in farming and ranching at Indian Springs and in the surrounding areas, no doubt benefitted from the information gathered by

the evaporation station.¹⁵

Of particular benefit to livestock ranchers, however, was the university's department of veterinary science. In 1906, the experiment station established the new department to conduct research in animal diseases and respond to distress calls from farmers and stockmen. In 1914, university regents appointed two assistant veterinarians-- Dr. Edward Record, a University of Pennsylvania graduate, in charge of animal disease research and Dr. Stephen Lockett, also from the University of Pennsylvania, to conduct field work.¹⁶ By 1915, stockraisers' demands for service calls were so great that the university established a State Veterinary Control Service under the Public Service Division of the college, with the experiment station veterinarian appointed State Quarantine Officer. The Nevada legislature also created a State Board of Stock Commissioners with the quarantine officer serving as executive secretary of the board. This agency later became the State Department of Agriculture and assumed regulatory control over animals, plants, and insects.¹⁷

Disease presented an alarming problem for local ranchers and potential outbreaks triggered frantic demands for assistance from the state's veterinarian and stock commission. Stockbreeders were almost powerless to stop the periodic outbreaks of tuberculosis, "hoof and mouth," and swine's disease in Nevada and adjoining states. In order to check the spread of tuberculosis within the livestock industry, the Clark County Farm Bureau in December 1919 requested that Dr. E.M Dobbs, livestock inspector and State Stock Commissioner, come to Las Vegas to test the dairy cattle in Clark and Lincoln Counties. Area ranchers were planning to ship in some high grade stock during the winter months and they wanted to make sure that the county was free of tuberculosis when the livestock arrived.¹⁸

In this progressive era of legislation concerning pure food and meat inspection, ranchers needed to assure consumers that their animals were healthy. Tubercular dairy cows represented a menace to the public as well as to hogs, poultry, and other cattle who came into contact with infected livestock. The majority of the testing, conducted in the Reno and Carson Valley area, showed that of the 5,000 dairy animals examined, only 9

percent were affected. Of the animals showing tubercular symptoms, 75 percent came from herds brought in from other states. Native cattle were rarely infected. To control the spread of the disease, condemned cattle were slaughtered. The State Board of Stock Commissioners compensated dairymen for the loss of their stock at 75 percent of its appraised value based upon the cow's ability to produce butter-fat. Dr. Dobbs believed that the number of cows infected in the Southern Nevada area would be quite low. In 1922 Dr. Record, state veterinarian, stated that Lincoln and Clark Counties were "tuberculosis-free and that this splendid condition of the livestock is due largely to the work of County Agent John Wittwer."

Besides tuberculosis, cattle were also susceptible to "hoof and mouth" disease. Although Nevada reported no incidence of this affliction, a 1924 outbreak in California alarmed stock-raisers throughout the state. To safeguard Nevada stock owners, state quarantine officer Dr. Record established inspection stations at selected border areas to examine all livestock coming into the state. Vernon Metcalf, secretary of the Nevada Livestock Association, emphasized the importance of the livestock industry to the state in a speech given before members of the Las Vegas Chamber of Commerce and the Las Vegas Valley Farm Bureau in 1922. He informed them that "livestock is the manufacturing plant for the products of all other lands....The railroads pay 60 percent of the taxes of the state, livestock 30 percent, and mining 7 percent, so that, outside of the railroad, livestock is by far the greatest contributor to our tax funds."¹⁹ Because the health of the livestock industry was financially important to Nevada's economic stability, ranchers remained vigilant about stopping the spread of disease.

Along with cattle, hogs were also susceptible to certain diseases. In June 1914, Park Farms became alarmed over a report issued by the United States Department of Agriculture regarding the demise of 1,200 hogs to swine's disease. This outbreak represented a loss of \$15,000 to Nevada's swine breeders. Census statistics indicate that the state had 33,000 head of hogs with an aggregate value of \$416,000. Due to the temperate and dry climate of Southern Nevada, however, the hogs in this section were largely unaffected.²⁰

Another measure used to protect Nevada's fragile ranching and farming environment was the quarantine. State Quarantine Officers assumed the responsibility of regulating and controlling harmful animals, plants, and insects. In order to halt the spread of infectious diseases among the livestock as well as infestations of destructive insects, the state could prevent the entry of certain agricultural products into the state or even across county lines within Nevada. For example, in 1924 an infestation of alfalfa weevils occurred in Lincoln County. Clark County and the farm bureau, alarmed over the discovery, imposed an embargo on baled alfalfa hay from that section to prevent the weevils from migrating. They also brought in an entomologist to determine the extent of the weevil infestation and whether or not Clark County had been infected. The insect expert found weevils in Lincoln County as well as in the upper Muddy River area but not in Clark County. Due to Clark County's desert heat, neither alfalfa weevils nor the Mormon crickets were able to survive. However, the threat of a possible infestation served to keep the embargo in force and Clark County alfalfa prices high, much to the delight of local hay farmers.²¹ Nevada's use of the quarantine proved to be an effective means to protect the state's livestock and agricultural industry as well. Ranchers and farmers concerned over the spread of infectious diseases among their livestock and the introduction of destructive insects into the agricultural environment were well-served by the state's quarantine policy.²²

In addition to the quarantine, the state also used predator control methods to protect Nevada's growing livestock industry. Like disease, predators also represented a hazard for local ranchers. Although susceptible to disease, sheep were particularly vulnerable to predators, especially coyotes, and needed watchful care. Indeed, sheep losses were often high and sheepherders attributed the majority of their losses to predators. Ranchers throughout the West were threatened by coyotes, wolves, and mountain lions who preyed on domestic livestock like cattle and sheep for food. As a result, ranchers enlisted government aid in ridding their ranch lands of this scourge to stock-raising. In 1916, Clark County paid a bounty of \$2.50 for every coyote destroyed.²³ Of course, the problem was not limited to the Las Vegas Valley.

By the 1920s, Nevada employed state, county, and federal hunters and trappers to eradicate predators on the public domain. Each of Nevada's seventeen counties employed thirty-four hunters per month to destroy animals considered expendable and dangerous to livestock. Clark County employed at least six trappers on the public domain to keep Southern Nevada ranchers and their livestock predator-free. Nevada also maintained an annual biological survey of the total predators taken. For example, from June 1, 1923 to June 1, 1924, state hunters killed 6,059 predators including 5,391 coyotes, 667 bobcats, and 1 wolf. In order to fund the program, the state sold the hides from the slain animals and returned the money to the specific county employing the trapper or hunter. As long as predatory animals viewed domestic livestock, especially sheep, as a ready source of protein, their eradication was important to the continued survival of the stock-raising industry. Predator eradication became a challenge to stock raisers and government trappers as coyotes, in particular, seemed to adapt to many of the methods used including poison. Efforts to diminish their numbers often proved futile and coyotes continued to impose a threat to area ranchers.²⁴

Nevada stockraisers were also showing their concern about the over-grazing of range lands and decreasing forage for their livestock.²⁵ In 1916 stockmen received additional help from the experimental station's Department of Range Management which conducted research into the best methods for revegetating depleted grazing lands and studied the properties of poisonous range plants and their effects on livestock.²⁶ These studies also proved beneficial to sheep and cattle ranchers not only in Nevada but in other range states as well. State agricultural assistance as well as help from the federal government became increasingly important to western farmers and ranchers throughout the twentieth century.

With the federal government's enactment of the Smith-Lever Act in 1914 and the inauguration of organized university extension work, followed by increasing involvement on the part of the business community, Southern Nevadans participated scientifically as well as more efficiently in their region's agricultural growth, beginning with demonstration education.

The concept of demonstration education, or teaching by example, actually started in 1885 to show farmers the most productive farming methods. It later became a useful tool to tear down the wall of distrust built up between big business and the agrarian sector and create rapport between urban businessmen and rural farmers. Because business interests were tied to agricultural prosperity, the business community initiated a movement to wean farmers and ranchers away from traditional farming practices by educating them in progressive agricultural methods. Local businessmen including bankers, merchants and later, the railroad interests, all participated in the effort to get the farmers interested in the latest agrarian technology from crop cultivation to livestock raising. Not only did the railroad promote agriculture in Southern Nevada, but it brought demonstration education directly to the community. ²⁷

In 1911, the San Pedro, Los Angeles, and Salt Lake Railroad introduced demonstration education to Southern Nevada's ranchers and farmers patterned after the Southern Pacific Railroad's program for the West. Railroad companies adopted the policy of offering educational programs as a means to redeem its reputation as a "soulless corporation." Many westerners had denounced the railroads as "land-grabbers, bribe-givers, political corruptionists, hard-fisted extortionists, thieves," and worse and the railroads sought to re-invent their image. They made arrangements with state agricultural colleges to send farm trains into rural areas to educate farmers through lectures and demonstrations on a wide variety of farming and ranching activities. The Review reported in January 1911, that the management of the Salt Lake Railroad, "favorably impressed with the agricultural possibilities of the desert section through which it runs, will soon put into service an agricultural car. The interest taken by the railroad is certain to aid materially in setting up the desert country." In February 1911, Clark Railroad's first industrial and educational train, in cooperation with Utah's Agricultural College, arrived in Las Vegas bringing professors and other experts from experimental farms and stations to provide demonstration education to local ranchers and farmers. Initially, the Review expressed ambivalence over the train's project claiming that although the undertaking had merit, "we should like to take some of those professors out in the middle of the desert and place them

in the center of a nice farm-size tract of sagebrush, with no water ...and see how they would act. We fancy in such a case some of our Vegas fellows would be in a position to do the lecturing.”²⁸ However, the newspaper’s reservations were soon put to rest and the farmers’ train became an eagerly awaited annual event for Las Vegas.

By 1913, Southern Nevadans in the Moapa Valley were welcoming the arrival of the farmers’ train over the railroad’s newly opened branch line into Overton. The train planned a one-day stopover before preceding on to Las Vegas. “More and Better Livestock” was the theme for the annual tour and, due to the numerous exhibits carried on the train as well as the expanded size of the agricultural staff, residents considered the 1913 demonstration train the most complete and successful yet. The demonstration train’s exhibits displayed samples of feed, forage, butter, and cheese, along with models of farm buildings including barns, dairies, milk houses, hog pens, and a silo with silage. A dairy expert from the Utah Agricultural College’s extension service lectured with charts and illustrations on the fundamentals of “a clean dairy,” demonstrated modern dairying equipment, and showed examples of bacteria common to the dairy. Other members of the staff including the president of the college, the superintendent of farmers’ institutes and professor of animal husbandry, the director of extension services, along with two men in charge of the exhibits and the livestock conducted inspection tours and answered questions for the visitors. Agricultural expert Sewell Merrill along with industrial agent Douglas White, who had charge of the demonstration train, represented Clark’s Railway on its Salt Lake route. Merrill gave lectures throughout the tour and provided information and advice regarding the agricultural opportunities in each of the sections visited.²⁹ Because farm prosperity was not only in the best interests of the railroad companies, but of the entire business community as well, they supported all railroad efforts to help the farmer.

Business and agriculture remained closely allied through demonstration education programs, the Las Vegas Chamber of Commerce, the University of Nevada’s organized extension work, and later, through the Clark County Farm Bureau and other associations. Southern Nevada’s ranchers and farmers responded favorably to the efforts of businessmen and agricultural colleges and began to view farming as a business. By 1916, the annual

tour of the farmers' train into Las Vegas reflected the trend towards mechanized farming, applied science, and other technological advances, thus restructuring the practice of agriculture. As a further indication of the increasing importance of agricultural development to business prosperity, a number of new companies including farm equipment manufacturers, food processors, and power companies participated with the Salt Lake Railroad in its demonstration education projects.

Several hundred Las Vegans attended the April 1916 event, advertised as the largest ever, with ten fully equipped exhibit cars--all electrically lighted by a Fairbanks-Morse generator. The Consolidated Wagon and Machine Company brought labor-saving equipment for the ranch including John Deere plows, mowers, and harvestors; Holt Manufacturing Company displayed its Caterpillar Tractor, Fairbanks-Morse demonstrated its electric and gas-operated motors and pumps; the Utah-Idaho Company showed the latest beet-sugar processing equipment, and the General Electric Company of New York introduced its new line of ranch and household appliances. In addition to machinery, the railroad cars also carried blooded livestock, models of ranch buildings, general farming and irrigation equipment, and a government wool exhibit. Other cars were used as multi-purpose, lecture, and demonstration rooms, while one was reserved exclusively for the Utah Agricultural College's home economics department. Edward Griffith, president of the Las Vegas Chamber of Commerce, presided over the evening's lecture series sponsored by the train's expert staff. Professor Charles Knight, Dean of the College of Agriculture of the University of Nevada, discussed soil conditions in the Las Vegas Valley and Professor Charles Norcross, former commissioner of the Bureau of Industry, Agriculture, and Irrigation and director of the university's extension service, described the role of the county agent in farming. The business sector--banking, industry, and the railroad--was represented by Dr. W. E. Taylor, who discussed the financial situation and its effect on farmers from a banker's standpoint, Professor James Scrugham, who asked for the cooperation of the state's commercial clubs, and the Salt Lake's industrial agent Douglas White, who talked about agricultural growth from the railroad's point-of-view.³⁰ Southern Nevada's 1916 demonstration train once again showed the business community's

commitment to agriculture as indicated by the various company representatives. The annual farmers' train with its many educational exhibits, lectures, and staff of experts became a valuable resource for Southern Nevada farmers. County involvement in farming activities became even more crucial as the United States began edging towards war in the middle of the twentieth century.

By 1914, the business community's strong support of demonstration education through the auspices of merchants, bankers, and railroad companies, working with agricultural colleges, formed the basis for a solid and prosperous business-agrarian alliance. Yet Nevada's stockmen and farmers wanted more than yearly visits from demonstration trains and farmers' institutes and less pamphlet and bulletin distribution from the university's experiment stations. Contemporaries observed that the "pamphleteering of farmers was going out of style and not getting results. We are judged not by scholars who read but by farmers who farm." Ranchers and farmers wanted hands-on assistance from county agents based in their own communities. In response, University of Nevada President Dr. Archer Hendrick traveled to Washington, D.C. where he met with several government and national agencies to articulate the needs of the state's agricultural communities.

Hendrick expressed his opinion that a great change must come in the methods used to bring service to the state's livestock and agricultural industries. He argued that "the demand is for men who can go to the farm and stay there, who can show as well as who can tell or write....We must have practical men who can go from place to place, instead of theoretical men who send the same pamphlet to all places," regardless of each county's particular problem. Business leaders in farming communities throughout the West began to work towards solving the problems outlined by Hendrick and other concerned citizens.³¹

Determined to make demonstration education into a national institution, businessmen initiated efforts to obtain government support as financial insurance, thus providing rural sectors with continuing access to the latest agrarian technology and education. As a result, business lobbyists successfully launched a powerful campaign to achieve this goal. But with the outbreak of war in Europe, President Woodrow Wilson

also rallied around farm reform. Presidential support and lobbyist efforts eventually led to the passage of the Smith-Lever Act of 1914 and additional funding for agricultural education. Nevadans praised the bill “as filling a long-felt need” in making test results conducted by agricultural experiment farms under funding from Hatch and Adams more available to farmers. The bill appropriated \$10,000 for each state, with an another \$600,000 made available in the next year, distributed according to the state’s rural population and allocation of matching funds provided by the state, college appropriations, local authorities, or from subscription. With the prospect of additional money, the University of Nevada and other land grant institutions, in cooperation with the Department of Agriculture, inaugurated the organization of agricultural extension work.

The year 1914 represented a turning point in Southern Nevada’s agricultural activities. Under the Smith-Lever Act, the university’s extension service dispatched agents to rural communities throughout Nevada to instruct ranchers and farmers in the latest agricultural and stock-raising techniques, while the outbreak of war in Europe escalated agricultural production in the West to an all-time high.³² One other factor, however, also influenced Southern Nevada’s agricultural development. New scientific and technological advancements endowed engineers with the capability to harness river water for hydro-electric power and irrigation. The prospect of a dam on the Colorado near Boulder Canyon and the construction of a reservoir raised the hopes of ranchers and farmers throughout the Las Vegas Valley.

In February 1914, Henry Schmidt rekindled the Las Vegas Valley’s interest in reclamation projects after he announced to Mayor Peter Buol that the Colorado River hydro-electric project he had been engaged in with Clement Mace and other Tonopah businessmen since 1910 was ready to go forward. Several problems had delayed the five-million-dollar project including the vastness of the undertaking itself, which led to the government’s refusal to grant a permit. Even though progress had been slow, Schmidt promised that the project would proceed as planned as a result of a foreign syndicate’s willingness to underwrite the bonds. Schmidt indicated that he and his backers would be “most liberal in their business methods and feel that our interests and those of the

communities to be served are mutual. We hope to build up a large agricultural business which features in a considerable part of our extensive plan.” Schmidt’s project was slated to develop vast tracts of land for farming through irrigated pumping wells, operated by hydro-electric power. Schmidt, Mace, and other Tonopahans, doing business as the Desert Securities Company, had already claimed 6,000 acres of land in 1909 under the Desert Land Act. The Tonopah colony, located near the Bishop Ranch ten miles east of Las Vegas, had filed sixteen claims for between 80 and 320 acres each. The editor of the Rhyolite Herald heralded the Tonopah land rush into Las Vegas, praising the valley for its productive soil and abundance of water and congratulated Clark County for its “agricultural awakening.” He also observed that “with the developing oil interests, the railroad improvements, the progress in the outlying mines, combined with this agricultural excitement, and its new swaddling clothes, Las Vegas seems assured a boom that will be substantial,” as well as advantageous to Rhyolite.

However, by 1919, the project was at a standstill, no water from the Colorado was forthcoming, and the government was still surveying the land. Contemporaries began to doubt whether or not the project would prove of any value for irrigating lands in Clark County as the proposed dam was to be built at least 1,000 feet lower than the Las Vegas Valley. In 1920 Luther Brentner of Carpinteria, California concluded a cash deal on land purchased from Schmidt’s estate. He planned to sell the former Desert Securities’ claims in five and ten acre tracts suitable for small farms. In 1921, real estate agent Elbert Howard advertised the homesites as Artesian Acres, a place where “you can grow your own family orchard of fig trees, almonds, English walnuts, peaches, apricots and other fruits, raise your own patch of alfalfa for the family cow and chickens, establish a nice country home within easy walking distance of town.” Eventually most of the farm lands around the Las Vegas Valley would become paved-over suburbs.³³ Mayor Peter Buol, like Henry Schmidt with his Desert Securities project, also envisioned large-scale agricultural development for the Las Vegas Valley.

Between 1911 and 1914, Buol’s South Nevada Land and Development Company initiated a large-scale irrigation enterprise to develop 3,500 acres of land two miles north of

town, near Laubenheimer's ranch, for agriculture. With the prospect of additional water for irrigation from the Colorado River dam project and from artesian well-drilling, Buol like Schmidt also sought foreign capital to finance his plan. He was able to persuade Sir John Murray of Scotland and other British capitalists to invest in land rather than Alunite mining. In 1911, after concluding the \$100,000 joint-venture with Murray, the Las Vegas Chamber of Commerce honored Buol's successful mission to Scotland to close the "Scotch Acres" deal. In March 1913, as Buol's company began drilling for wells on the property, the Age congratulated Buol and announced the work as the "greatest artesian irrigation project yet undertaken in the Vegas Valley...as it will have a very important bearing on our future prosperity." By June the company had planted an orchard along with an alfalfa patch which later yielded 110 tons of hay. According to Las Vegas pioneer Leon Rockwell, Buol was a shrewd man who was going to colonize the Scotch Acres with farmers. He recalled that the South Nevada Land and Development Company had "frozen bushels of almonds in the freezer at the ice plant in order to break them into pieces so that they would germinate or grow....The seeds were to be planted and then grafted as they had a tap root." In 1914, however, Buol's vision of creating an agricultural empire in Southern Nevada came to naught with the sudden death of his principal backer in an Edinburgh automobile accident. Local newspapers reported that Sir John Murray, originally from Canada, had been a noted naturalist and oceanographer who used his vast fortune to develop dormant resources around the world including a large acreage in Southern Nevada. Las Vegans viewed his untimely death as a blow to their "cherished plans of irrigating a large tract of land" and to agricultural development as a whole.

In 1922, the Review reported that Buol's company, locally known as the Scotch Syndicate, was selling its Scotch Acres Ranch to the five-million-dollar National Land Value Guaranty Company of Las Vegas for \$95,000. The new owners described the property as possessing the largest artesian wells in the county, with enough water to irrigate a tract ten times its size, and planned to put the ranch on the market in small farm-tracts. Buol's empire later became a Las Vegas housing development known as the "Scotch Eighties," northwest of town. (near Rancho Road, Alta Drive, and Charleston)³⁴ Not

only did the year 1914 reflect ambitious attempts to develop large-scale agriculture and capitalist farming in Southern Nevada, but it also brought the prospect of war into the valley.

As World War I broke out in Europe in the summer of 1914, disrupting lives and creating food shortages, it eventually led to an increasing reliance on American agriculture and critical demands for farm produce. World War I became the catalyst driving ranchers and farmers to even greater efforts to increase agricultural production and bring more land under cultivation. Such efforts reinforced the trend towards large-scale farming. They also represented the emergence of agri-businesses along with potentially rich profits to be made from escalating war-time prices. Prior to America's entry into World War I, historian Robert Athearn indicated that eastern congressmen and journalists were already talking about "winning the war with food" and increasing agricultural production and that the West would be called upon to assist in the effort. Farmers and ranchers' fervid attempts to raise grain and garden vegetables, along with poultry, dairy, and beef cattle, and increase the yields reached fever pitch between 1914 and 1918. Agricultural families all around Southern Nevada participated in the effort to grow their own garden produce, conserve food supplies, and become self-sufficient. To attain those ends, the Las Vegas Valley started a grass roots war-preparedness movement to unify the community.

To initiate community preparedness during wartime, citizens interested in the welfare of Las Vegas held a thrift-garden meeting in March 1917 to discuss the utilization of unused land around town and organize a "garden movement." The Age emphasized that "whether we are drawn into war or not, thrift gardens will teach our people economy, thrift, and preparedness." Las Vegans stressed the necessity of garden cultivation in back yards, vacant lots, and other available land for several reasons. Their rationale for increased garden cultivation was that it would reduce the high cost of living, add to the nation's food resources, improve the appearance of the city, and provide suitable employment for young people during the summer. Charles Vinson, a representative from the university's agricultural extension service, attended the meeting to discuss soil preparation while Julius Fox and another rancher, successful truck farmers,³⁵ gave

practical tips on vegetable cultivation. In addition, the local boy scout leader volunteered the use of his troops in cleaning up vacant lots for the garden movement. At the close of the session, the group organized gardening committees as well as a public market to dispose of locally grown produce and flowers. They also planned to offer prizes for the best-kept gardens along with blue ribbons for vegetable and flower displays. The Las Vegas Chamber of Commerce also participated and held a meeting the following month with the idea of promoting thrift-gardens.³⁶

In April 1917, as America entered World War I as an active participant, national leaders urged the country to become even more agriculturally productive. To stimulate increased food production and distribution and reduce civilian consumption, as well as provide funding to support the cause, congress enacted the Lever Food and Fuel Control Act in August 1917. Herbert Hoover, who served as director of the Food Administration, encouraged the nation's farming communities to work cooperatively toward this wartime aim while the American government asked Americans to participate in the national effort to provide food for the allies. To attain those ends, Governor Emmet Boyle also urged Nevadans to "produce what they must use and use what they can produce" as it is their patriotic duty. His movement to publicize the need for food control, conservation of supplies, and offer support for community efforts was reflected in an Executive Proclamation declaring April 14th through the 17th as Western Consumers' Week. Governor Boyle advised the state's citizens that "home patronage is essential to the stimulation of productive enterprise and general prosperity....They must assist in the upbuilding of the state by exhibiting loyalty to their own produce." Nevadans should use locally-grown products first, followed by the state's, and finally, only those produced by westerners.³⁷

The Secretary of Agriculture also stressed the need for citizens to conserve the food supply in a letter to Vinson of the university's agricultural extension service. Secretary Houston emphasized the fact that "it is highly essential every person exercise the greatest economy in food consumption....Every person should produce all vegetables needed for home use through the summer and coming winter." He also suggested that every family

keep a small flock of chickens to furnish eggs as well as pay for their upkeep. Vinson, a frequent visitor to Southern Nevada as an agricultural extension service agent, echoed the secretary's opinion regarding the importance of production. Familiar with Southern Nevada's natural resources, diverse crop production, and bountiful harvests, Vinson encouraged the valley's ranchers and farmers to grow all their own vegetables, fruits, grains, and hay for home use as well as raise their own dairy cows for milk, butter, and meat supplies. Other livestock could also be used to supplement the family larder. He also informed Southern Nevadans that as American citizens, "they cannot do a more patriotic thing, aside from joining the colors, then increasing the nation's food supply and encourage it. Do not fail to encourage boys and girls in gardening work or in raising chickens, rabbits, pigs, lambs and calves; for they will help enormously in the movement." Thus inspired by Vinson's faith in their community's agricultural productivity, Southern Nevada's entered into the patriotic spirit and commenced farming more enthusiastically than ever. ³⁸

With the passage of the Lever Food and Fuel Control Act, Southern Nevada's farmers received additional assistance and new resources to draw from, thus facilitating their attempts to increase crop yields and agricultural production for the valley during wartime. The 1917 act allocated substantial funding to stimulate food production which was disbursed through the Department of Agriculture. The agricultural department allotted a major portion of the money to state extension services including the University of Nevada's to employ county and home demonstration agents. Sewell Merrill, former agricultural agent for Clark's Railroad, and John Wittwer of Bunkerville were among the first to serve as Clark County farm agents. Norma Davis worked as the county's first traveling home demonstration agent while Adelaide Phillips and Mary Stillwell served as local home agents. Home agents conducted community classes in food conservation and production and organized boys and girls into 4-H clubs. In addition, the legislature organized the Southern Nevada Agricultural Board to establish offices for the agents and provide them with cars, as well as travel and other operating expenses, from Federal War Food Funds. The board also offered advice and supervision. Clark County agents and university

extension professors worked closely with ranchers and farmers to increase food production and assist them in their wartime efforts.³⁹

Southern Nevada's rural community also received financial assistance from the Federal Farm Loan Act of 1916 which offered low-interest loans to farmers. The Federal Farm Loan Board directed the provisions of the Federal Farm Loan Act through twelve federal land banks with a minimum capital of \$750,000 each. After the National Farm Loan Board met in Reno in September 1916, the Age described the meeting as notable as it validated Nevada's agricultural resources and highlighted its future as a farming state. They observed that it is especially appropriate that "the board should meet here and that the resources of Nevada should finally have a chance....Nevada long lay dormant except as to her mineral resources....When anyone spoke of farming in Nevada he was laughed at. The state was called a desert and an arid waste, but today the farmer is coming into his own." In February 1917, Clark County organized a local branch of the National Farm Loan Bank and elected W.H. Pike and local ranchers Julius Fox, John F. Miller, Philip Steinman, Frederick Eglington, George Crouse, John Tuck, I.C. Johnson, and John L. Russell to the bank's Board of Directors. The bank also elected its Farm Loan Association officers with Steinman as president, Johnson as vice-president, and Dan O'Leary as secretary and treasurer, with Fox, Miller, and Russell serving as members on the Board of Appraisers. The board had already received applications for loans totaling \$31,000. Contemporaries regarded the rural credits law as beneficial to the state's developing agricultural resources but the war also incited the valley's farming movement.⁴⁰

World War I stimulated agricultural production in Nevada and increased output in every aspect of the industry — from livestock products to crop yields to the irrigation and cultivation of once sub-marginal lands. By 1918, national demands for meat and wool boosted agriculture in Nevada to a leading economic position. In fact, Nevada produced the highest yield per acre of wheat between 1918 and 1927. Nevada growers and stockraisers received peak prices for cattle, sheep, lambs, grain, hay, wool, as well as dairy, poultry, beekeeping, and beet sugar products. As the war brought high profits for farm surplus, the production of wheat, rye, corn, barley, and oats increased along with

land values. Farmers, experiencing “false prosperity,” continued to farm on a large-scale, with high-tech farm machinery, and remained unconcerned about the post-war era. ⁴¹

In Logan, Nevada, for example, farmers exhibited their patriotism by planting large acreages to increase production and operated the new mechanical devices to simplify the harvest. Moapa Valley ranchers planned to increase the size of their acreage and raise a bumper crop of grain in 1918 with the use of gasoline-powered tractors, combine harvestors, and farm trucks. The Moapa Valley Improvement Company operated an 18-horse power tractor reportedly heard “throbbing steadily everyday as it turned over its five acres of land,” while five miles away, two farmers used a Bates Iron mule with excellent results. Three Logan ranchers, in addition to increasing their productivity, were shipping cream to Salt Lake City, along with other local products, including Moapa Valley cantaloupes. The Logan ranchers were also in the process of building up their cattle herds with thoroughbred bulls to increase the production of dairy products. In addition to reporting on the Moapa Valley’s war-time agricultural efforts, the Age also noted the arrival of Korean immigrants who had leased the Koenig Ranch north of Overton for the following year. Ranchers and farmers throughout the Moapa and Virgin Valleys including the new immigrant population were reportedly “doing their bit” to raise bumper crops for 1918. ⁴²

Citizens throughout Southern Nevada including boys and girls on the farm enlisted in the civilian effort to win the war through agricultural pursuits. Under the direction of home demonstration agents, county agents encouraged farm children to participate in the War Food Production and Conservation Campaign by joining various agricultural associations including garden, canning, beef, dairy, hog, sheep, and poultry clubs. In June 1917, Moapa Vally rancher George Baldwin offered to sell 6-week-old registered Duroc pigs for three dollars each to any boy who joined the Pig Club. The offer was limited to the first twenty-five boys who signed up with county agent Sewell Merrill. The three dollar charge was due only after the boy received a profit from his pig-raising venture. County and home demonstration agents from the agricultural extension service as well as chambers of commerce and other businessmen encouraged boys and girls to join a

club of their choice including animal husbandry, gardening, and home economics clubs.

Clubs in Clark and Lincoln Counties were open to all boys and girls between the ages of ten and eighteen, whether in school or not. Not only did they provide a way for farm children to participate in war-time, but the clubs fostered greater love for farm life and a means to keep boys and girls “down on the farm.” The clubs also stressed leadership abilities, initiative, and cooperation among its members along with preparation for an agricultural career. As one contemporary remarked, “it is better to sow wheat than wildoats.”⁴³ In addition to organizing boys’ and girls’ clubs, county extension service agents also presented the latest farming techniques to farmers and their families and instructed them in the war preparedness movement. Demonstration education, with the railroad’s support, continued to play a pivotal role during the war years and remained an intrinsic part of the community’s agricultural progress.

By May 1917, Clark’s Railroad had transformed its annual farmers’ train into the National Preparedness train as it made its way towards the Las Vegas Valley for its first wartime visit. During war-time, the train’s primary purpose was to urge farmers and their families to become “soldiers of the commissary,” thus following the objective set forth by President Wilson. The demonstration train’s exhibits, educational meetings, and demonstrations were geared to induce “owners and operators of large acreage as well as boys and girls yet in their school days to assist in this increased production by planting and growing something upon every available square foot of tillable ground.” The railroad cars presented exhibits of the products most urgently needed including sugar beets, cereals, beans, and meat supplies. Cattle-raising, in particular, was vital because beef supplies took three years to replenish while hogs, sheep, and poultry required less time. Towards this goal, demonstrators encouraged stock-raisers to increase the cultivation of their forage crops to provide feed for their animals. They also showed the ranchers specimens of the highest grade of livestock and poultry, models of housing for birds and animals, as well as the most economic methods for storing fodder.

In addition, the home economics department of the Utah Agricultural College had equipped one of the cars to demonstrate emergency Red Cross work and ways to provide

first aid to the injured. Several farm equipment companies also exhibited their latest machinery including Fairbanks-Morse, Consolidated Wagon and Machine, Holt Caterpillar, John Deere plows and harvestors, C.L. Best tractors, and Avery Tractor Company of Peoria, Illinois. At a university preparedness conference held at Berkeley, agronomists had showed the participants that modern gasoline-powered farm equipment was an important factor in the preparedness movement. The federal government also participated by exhibiting a car devoted to forestry and the preservation of the cattle range. Preparedness remained the watchword for agricultural districts throughout the West along with the need to supply the nation with food supplies.⁴⁴

By November 1919, World War I was over along with the nation's agricultural boom. The years between 1909 and 1914, noted as the "golden age of agriculture and later used as a base period for setting parity prices, combined with the war period to bring great prosperity to ranchers and farmers. However, the boom also brought false economic security. As a result of falling prices, high production costs, reduced profits, and a labor shortage, Nevada entertained the great deflation of 1920. The state's sheep industry was hit the hardest followed by a drop in cattle prices. Although Southern Nevadans and the rest of the nation had participated in the war preparedness movement by conserving food supplies, planting thrift gardens, increasing crop outputs, and cooperating with county agents, agriculture represented a weak link in the economic chain.

Two additional factors also triggered the Las Vegas Valley's ongoing attempts to develop as well as promote agriculture in Southern Nevada. In 1922, Clark sold his line to the Union Pacific and the railroad moved its repair yards to Caliente, 150 miles northeast of Las Vegas. This event, followed by diminishing mine returns, threatened to plunge the area into economic decline. Therefore, agriculture became even more crucial to the economic life of the town. Although agricultural development languished in the Las Vegas Valley, community spirit did not and, throughout the 1920s, town leaders remained committed to locking agriculture into the local economy. Farm problems in the 1920s would require business as well as political solutions.

CHAPTER 6

THE BUSINESS OF FARMING, 1920-1930

In the 1920s, agricultural practices in Southern Nevada reflected a growing trend to conduct farming operations with a business approach. Ranchers and farmers attempted to raise livestock and grow crops more efficiently and more productively through the application of science, business, and technology. They investigated a variety of methods to improve their agricultural prospects including one-crop specialization, marketing cooperatives, commercial orchard and vineyard programs, new crop experiments, standardized crops, and other business-oriented or scientific farming enterprises. Cotton became a leading contender along with orchard fruits and cantaloupes as one-crop specialties while dairy and poultry ranchers initiated plans to increase their production. The government's response to agrarian concerns continued in the form of moderate legislative proposals including the Pittman Reclamation Act, Federal Farm Loan Act, a Cooperative Marketing Bill, and other measures. Farm bloc and farm bureau lobbyists assisted in the effort to gain congressional support for rural communities.

Clark County ranchers, reflecting the new view of farmers as businessmen, also became involved in agricultural organizations like the Clark County Farm Bureau, the Southern Nevada Agricultural Board, as well as the Livestock Marketing, Cow Testing, and Clark County Bull Associations. The Clark County Farm Bureau, working cooperatively with the Las Vegas Chamber of Commerce, served as the lodestar for Southern Nevada's final efforts to integrate agriculture into the local economic structure. Until farming gave way permanently to tourism and gambling in the 1930s, the distribution of small farming operations throughout the Las Vegas Valley in the 1920s grew steadily.

Agricultural statistics for 1920 record 162 farms in Clark County with 13,544 acres out of a total land area of 5,148,800. Of that number, 151 were owner-operated, ten were

tenant-farmed, and one--the Taylor Ranch (Kiel Ranch)--was managed by Frank Allen. Farm size ranged from under three to over 1,000 acres with an average of 83.6. Farmers had improved 5,646 acres while an additional 7,207 was available for cultivation. All farm property was valued at \$1,597,864. Data clearly indicates that county farmers and ranchers practiced diversified agriculture because many farms reported raising domestic animals along with various crops. For example, 155 farms recorded 780 horses, 39 mules; 8,080 beef cattle; 1,014 dairy cattle; 1,557 sheep, 9 goats, and 1,484 swine. Production totaled 1,777 acres of cereal including 2,314 bushels of corn; 3,865 bushels of oats; 24,944 bushels of wheat; and 5,595 bushels of barley; 1,851 acres of hay and other forage, 272 bushels of potatoes, along with other vegetables, a large variety of fruits, and 339,098 pounds of grapes. Although 95 farmers reported their farms as mortgage-free, thereby confirming the success of diversified agriculture, Southern Nevadans continued their search for one staple crop suitable for commercial marketing. Like California's Imperial Valley and Arizona's Salt River Valley, the Las Vegas Valley experimented with melon culture and cotton growing in hopes of developing a product unique to Southern Nevada with a value exceeding that of already established crops. ¹

Since 1914, Las Vegans had struggled to find a commercially marketable product. To this end, ranchers in the Las Vegas and Moapa Valleys had grown cantaloupes successfully for several years for local consumers. Due to the quality and exceptional flavor of the melons, Las Vegas Mayor Peter Buol recruited several valley ranchers in his plan to grow cantaloupes commercially for distant markets. In order to harvest a sufficient supply for shipping in carload quantities, Buol enlisted Paradise Valley ranchers George Swadener, William Laubenheimer, James Filbey, Clark-Ronnow, William Stewart, and Moapa rancher Issiah Cox to plant large acreages to melons. In the winter of 1914, the ranchers cultivated between 100 and 200 acres of fruit. By July, Buol received the first shipment of 4,500 crates to be sent by railroad to the Salt Lake market. Despite a promising start, efforts to commercialize flagged until 1920. ²

Throughout the 1920s, most valley farmers continued to specialize in one-crop production by growing new products experimentally as well as investigating what crops

were grown successfully in similar climates. Las Vegans attempted to grow cotton, plant commercial vineyards and orchards, increase their output of poultry and dairy products, and even contemplated the growing of mulberry trees for silk production --all with limited or no success. Although few ranchers could afford to abandon diversified agriculture, Edwin G. McGriff made the transition with little effort. Because raising orchard fruits for the commercial market appeared the most promising as well as the least risky, McGriff embarked upon a successful career spanning more than twenty years as a Las Vegas Valley orchardist.

McGriff arrived in the valley from Utah with his wife Olive and daughter Della in 1914. He had been attracted to Las Vegas by promotional claims regarding its great agricultural opportunities and quickly became one of the town boosters' success stories. McGriff remarked that "every man likes to ride his own hobby, so I have brought my hobby to the desert with me."³ Contemporaries referred to McGriff as the "father of Utah's fruit industry" who had established the first major orchard in that state with 27,000 peach, apricot, plum, cherry, and apple trees along with 72,000 grape vines. After financial problems in Utah brought him to near ruin, he and his family settled in Southern Nevada to start again. Already in his early fifties, McGriff began his second agricultural career on leased land at the Old Las Vegas Ranch and at the Wixon Ranch in Paradise Valley where he grew five varieties of strawberries. McGriff's wife and daughter hand picked the strawberries, described by the Age as "unexcelled by any country on earth for their size, beauty, and flavor," and sold them locally. After 1915, the McGriffs leased another Paradise Valley ranch (the former Evey ranch) from C.E.M. Beall, superintendent of the Las Vegas and Tonopah Railroad, before acquiring ownership in 1920. The McGriff ranch with forty-seven acres of fruit trees became a thriving orchard business lasting until 1935. Because desert heat and lack of refrigeration discouraged the importation of fruit into the Las Vegas Valley, McGriff's orchard became the primary source for fresh fruit for valley residents. (McGriff's Warm Springs Ranch and Orchards was located west of Paradise and south of Warm Springs Road).

Throughout the 1920s and 1930s a steady stream of satisfied customers purchased

fruit directly from the ranch including Elberta peaches, pears, apricots, cherries, grapes, and the famous strawberries. When weather conditions were favorable and ice from the Pacific Fruit Express was available to keep the fruit cool, the Union Pacific Railroad could transport boxes of delicate McGriff fruit north and south to distant markets. The Age noted that “there is a great demand for the peaches in Salt Lake City, Ogden, and other northern points and McGriff expects to ship quite a number of carloads of peaches this year.” McGriff’s Elberta peaches were particularly notable because with the invention of refrigerated railroad cars at the end of the nineteenth century, growers in the south had experimented with developing “carrying-quality” fruit. Their experiments led to the Elberta peach--a variety that would withstand the rigors of travel as well as look and taste good. As a result of their studies, McGriff grew the hardier Elberta peach as a commercially viable product.

The railroad not only created an elongated market zone for McGriff’s fruit which stretched from Salt Lake to Los Angeles, but was itself a major customer. Indeed, McGriff supplied the Union Pacific dining cars with peaches and other fruits. In 1930 he announced that “the usual contracts for the output have been made with the Union Pacific for use exclusively on their dining cars all over the Pacific Coast.” McGriff expected to reap a \$15,000 to \$20,000 profit from what he considered a record crop yield. The following year, however, brought disaster when the premature arrival of extremely hot weather ripened his fruit thus destroying their flavor. A man of integrity, McGriff forfeited his contract, informing the railroad that he “preferred to sacrifice the year’s business rather than provide an inferior quality which might damage his long-standing reputation for growing the best peaches in the West.” Aside from weather, competition also threatened the profits of McGriff and other Clark County farmers. Indeed, markets south of Las Vegas were often more cheaply supplied by Southern California growers while northern markets were simply too far away. McGriff, however, maintained his good reputation and continued to supply the Union Pacific as well as local residents with fresh fruit.

In addition to operating a lucrative orchard-business, McGriff also served the community as a member of the Board of County Commissioners and the Las Vegas Chamber of Commerce as well as a Clark County Farm Bureau project leader. After

McGriff's death in 1938, William S. Mason, owner of the Mason Fruit Jar Company, purchased the property with the idea of transforming it into a country retreat for millionaires. He diverted water from two artesian wells into a newly built swimming pool instead of irrigating the orchard. As a result, many of the trees died only to be carted away as yard debris. By the late 1940s, cowboy star Roy Rogers bought the former ranch where a few of the old trees were still bearing fruit, thus rekindling the spirit of Edwin McGriff's legacy. Throughout the mid-twentieth century, McGriff's orchard remained one of the few ranches to specialize in one-crop cultivation. ⁴

Using his orchard as a model for success and his membership in the Clark County Farm Bureau as a vehicle to get his message out, McGriff successfully enlisted other farmers in similar operations. For example, Fred MacFarlane, a California fig grower, decided to pursue his craft in the Las Vegas Valley. In April 1922, MacFarlane purchased 160 acres north of town from Peter Buol and began clearing the land for cultivation. The railroad brought in two carloads of farm equipment including a power saw, tractors, and a combined rotary and rig outfit for drilling wells. MacFarlane planned to saw 1200 cords of wood from his land to use in building a barn, shops, and a homestead before planting Smyrna and Black Mission figs for commercial markets. To direct attention to the agricultural possibilities of the Las Vegas Valley, MacFarlane also traveled to Los Angeles with the town's boosters in May to show his enthusiasm for the area's future. ⁵

Although the valley's potential for fruit growing on a commercial scale appeared feasible, county ranchers soon began viewing cotton as king rather than Elberta peaches or Smyrna figs. In the 1920s, several Nevadans including county agent Sewell Merrill, rancher Jake Beckley and his brother Will, State Senator Edward Griffith, along with Charles Sprague's Las Vegas Land and Cotton Company, in cooperation with the Goodyear Tire and Rubber Company, showed interest in raising cotton in Southern Nevada. Impressed by the postwar cotton boom around Phoenix and elsewhere, the Age in July 1919 began advocating cotton as a means to stimulate agriculture and establish a one-crop staple. They argued that cotton had been grown successfully several decades ago when people had to make their own cloth and, more recently, experimental patches sprouted

vigorously around the valley. Several Las Vegas ranchers including Edwin McGriff, James Filbey, Charles Connelly, Frederick Eglington, and George Crouse successfully tested Pima cotton while Albert Wittwer grew Durango. In addition, five ranchers in the Moapa and Virgin Valleys experimented with both types. According to the Age, such evidence indicates that “there is no reason in soil, climate, length of season or anything else to prevent Las Vegas becoming one of the richest cotton raising centers in the country.” Contemporaries also considered the Las Vegas Valley ideal for cotton cultivation, comparable to California’s Imperial Valley and Arizona’s Salt River Valley. With this view in mind, Clark County Agent Merrill began investigating Southern Nevada’s adaptability for cotton-growing. ⁶

Because cotton was used in the manufacture of automobile tires, Merrill sent cotton samples along with a letter to the Goodyear Tire and Rubber Company of Akron, Ohio inquiring about the types of cotton best suited for this area. He also forwarded samples to the Bureau of Plant Industry in the Department of Agriculture and asked about the merits of different cotton varieties. Both sources described his cotton samples as excellent in quality. Merrill also gathered data on the cost of production, labor, ginning, and the returns received from the sale of seed and fibre. He determined that the initial outlay of building a cotton gin would be \$5,000 to \$10,000. The Southern Nevada Agricultural Board eventually funded Merrill to study farming in the cotton districts of Arizona’s Salt River Valley. Prominent Las Vegas merchant Will Beckley and his brother Jake, who owned a prosperous mercantile business in Blythe, also gathered information. They viewed the valley as “well adapted to cotton” and their observations at Blythe (with a similar climate) confirmed them in their belief. They corresponded with Globe Oil Mills who owned and operated twenty or thirty cotton gins in Southern California. In response, the company’s supervisor mailed one hundred pounds of McBane short staple cotton seeds, enough to plant eight to ten acres, to the Beckleys for distribution as well as detailed instructions on planting cotton. He also endorsed the Beckleys’ position that cotton could be grown successfully in Southern Nevada, especially when planted on old alfalfa stubble land, and moreover, that cotton cultivation in the Las Vegas Valley would appreciably increase land

values.⁷

State Senator Edward Griffith also championed cotton before a gathering of Republicans in Reno. He observed that “cotton plantations promise to be added to the assets of Clark County...there being about 150,000 acres of land...capable of raising cotton. Experts have pronounced cotton raised in Clark County the best they ever saw.” Griffith reported that Charles Sprague of Goldfield through his Las Vegas Land and Cotton Company, in cooperation with the Goodyear Tire Company, intended to plant 320 acres of cotton in the Las Vegas Valley on an experimental basis. If it proved promising, they would seed an additional 1000 acres or more within the year. Sprague announced that “if the experiment proves that Clark County land is capable of producing cotton in commercial quantities it undoubtably will mean the establishment of a cotton gin as well as a plant for the manufacture of linseed oil.” His Las Vegas Land and Cotton Company wanted to establish the Las Vegas Valley as part of the recognized cotton belt of the great southwest.

In the spring of 1920, Sprague’s company cleared 125 acres on the Sund tract, a mile west of town, and planted 50 acres of Pima cotton--currently selling on the market for \$1.25 a pound. They also planted 125 acres of Durango cotton at the Winterwood Ranch east of town. Arizona cotton districts grew Pima extensively while California’s San Joaquin Valley raised Durango. Sprague voiced his satisfaction with the crop results and announced that his company would also plant several hundred acres of milo maize for forage. Visitors from Blythe along with “Pop” Squires, editor of the Age, welcomed the Las Vegas Land and Cotton Company’s success and reported that “the cotton fields were looking fine and making a good growth.” Squires, one of the town’s staunchest promoters, predicted that “Las Vegas and all of Clark County are looking forward to a period of rapid development and prosperity which...will result from the cotton growing experiments being carried out on a considerable scale....” Unseasonably warm June weather had produced rapid cotton growth along with the usual heat-related complaints from local residents. As a result, Squires commented that “our Vegas people are not taking the cotton situation seriously. We hear many complaints of the hot days. Just remember, brother, that these warm hot days are ‘cotton weather days’ and let us hope we have more

of them.” As experimental cotton growing spread throughout the valley, he also suggested that within in a few years Clark County residents would adopt the expression “this is fine cotton weather,” when discussing the heat just as the people of Ventura County, California commonly used the term “fine bean weather.”

Besides the Las Vegas Land And Cotton Company’s two large tracts, several farmers were growing smaller experimental crops, with McGriff’s efforts the most successful. He reported that his cotton was in bloom and standing two feet tall. By June 1920, as cotton growers around the valley enjoyed bumper crops, their success generated increasing interest in buying Las Vegas land. For example, the Salt Lake Railroad’s Los Angeles office received numerous inquiries from out-of-state investors regarding cotton cultivation while local real estate offices including Fidelity Trust, A.D. Bishop Farm Company, and the Las Vegas Land and Cotton Company reported increased requests for information regarding farm lands. The companies also completed several ranch sales and transfers during the past month.

After inspecting the Las Vegas Valley’s cotton fields in July, Arizona cotton king R.P. Davie declared that the valley’s potential as a successful cotton growing region compared favorably with Arizona and California’s cotton districts. And in February 1921, Senator Edward Griffith brought evidence from one of Southern Nevada’s burgeoning cotton “plantations” to Reno after presenting a bouquet of cotton bolls to State Senate President Maurice Sullivan, who symbolically positioned it in a glass on the speakers’ dais to serve as a decoration for the legislative chamber.

However cotton did not become king in Clark County. Although Southern Nevada farmers had obtained proven results, its eventual failure resulted from external events beyond county control. Several factors contributed to its decline including a 1920s slump in American cotton thanks to cheap imports from India and elsewhere. In addition, federal efforts to stem dropping farm production resulted in overproduction of basic commodities including cotton and, as supplies increased, prices plummeted. In Clark County, ⁸ natural forces represented by “backwardness of the season,” strong winds, unpredictable land, an absence of humus in the soil, and due to its prohibitive cost, the lack of a ginning facility

interfered with Southern Nevada's vision of becoming a land of cotton plantations.

Despite their failure to grow cotton commercially, Southern Nevadans continued to search for a cash crop throughout the 1920s. Because orchard fruits were so successful, former county assessor Steven Whitehead, now secretary of the Las Vegas Chamber of Commerce, and chamber President Dr. Roy Martin investigated the growing of mulberry trees with the idea of establishing a silk manufacturing industry in Las Vegas. In 1924, the chamber received an inquiry from the California Raw Silk Factory concerning the area's climate, extremes of temperature, humidity, soil composition, water resources, and other factors pertinent to large-scale silk production in the valley. Silk producers believed that fabric could be profitably produced in this section, bringing as much as \$5 per pound. Investors, with an initial outlay of two million dollars, would be able to construct buildings, plant 4,000 acres of mulberry trees, and provide jobs for 1,200 people on a monthly payroll of \$150,000. Once again, urban members of the community, representing the Las Vegas Chamber of Commerce, worked to promote economic growth through agricultural development. But high costs and other problems condemned silk to the same fate as cotton. Nevertheless, Southern Nevadans persevered with their efforts to find a staple product.⁹

In addition to experimental crop-raising, Southern Nevada ranchers in the 1920s also struggled to increase the output of poultry and dairy goods. Their successes enabled poultry and dairy farmers to weather the post-war agricultural depression and achieve a measure of prosperity by the mid-1920s. For example, the state's milk production doubled within five years and the sale of dairy goods reached \$1,700,000. Moreover, the number of chickens recorded in 1919 was 224,000, reaching 350,000 in 1927. Clark County ranchers in 1920 raised 6,275 chickens and 221 other poultry types. The sale of eggs and dressed birds amounted to \$500,000--enough to furnish the local market. Las Vegans also engaged briefly in the cooperative marketing of turkeys through the Northwestern Turkey Association (later changed to Norbest), but due to internal problems it only lasted for one year.¹⁰

The local poultry business thrived in the postwar decade. In 1922, three poultry

ranchers including James Williams, James Rockwell, and Samuel Shaw, who also sold rabbits, operated in the Las Vegas Valley. Clark County ranchers in 1920 raised 8,888 chickens and sold 4,865 along with 11,216 dozen eggs. Valley ranchers had been selling poultry and eggs since 1914. For example, the Park Ranch sold thoroughbred poultry including white and buff Plymouth Rocks, buff Cochins, and black-tailed white or Japanized Bantams, and hatching eggs while Elizbeth Lee of Goodsprings sold fertile eggs carrying single-comb Rhode Island Reds, ready for hatching. Lee sold her eggs through the parcel post for one, two, or five dollars per setting of fifteen to markets as far away as Chicago. Indeed, local farmers had supported farm bloc lobbyists who finally convinced the federal government that parcel post would promote the shipment of food products directly to cities. As a result, Lee and other Clark County ranchers used the new service when it began in January 1913. After Lee mailed a package of setting eggs to a man in Chicago, the Age commented that “shipping eggs from Vegas to Chicago seems like shipping coal to New Castle, yet the chicken fanciers of Vegas seem to be working up a reputation for fancy fowls which is attracting attention.” County ranchers also used the mail to sell locally-grown produce. For example, Alvin Shurtliff of Overton sold fresh Moapa Valley vegetables to Las Vegans through the parcel post. Using the newspaper to advertise his services, Shurtliff offered to ship a ten-pound family assortment of lettuce, carrots, green onions, spinach, and radishes post paid to your home for fifty cents.¹¹ Parcel post proved a great boon to Clark County farmers and enabled them to sell their products to both local and distant markets. All but perishable goods, like milk, benefitted from expanded market zones.

At least seven dairy farmers including later Las Vegas mayor John Russell, Harry Anderson, John Heaton, George Ullom, and Dwight Doolittle supplied the local demand for dairy goods. Joining them were Rimer Oppedyk, an immigrant from Holland, and the Allen family, who owned four Dutch Belted cows. Indeed, dairymen experimented with a variety of breeds. Anderson raised Holsteins, Oppedyk owned Jerseys, while the Ullom dairy sold milk from Guernsey cows. The latter was a substantial operation which proved profitable for this politically prominent family. George Ullom bought ten or twelve

Guernsey cows for \$12,000 from a northern Utah rancher and started Ullom's Guernsey Dairy around 1918. He raised his own hay for feed but he also purchased it from Moapa Valley farmers when supplies ran low. In addition, Ullom leased twenty acres to a Japanese tenant farmer who raised a variety of vegetables and melons including corn, radishes, carrots, watermelon, Persian melon, cantaloupe, and according to Ullom's son, "some kind of nut." Kendall Bunker of Bunkerville worked for Ullom as a milker while attending high school in Las Vegas. George Ullom, Jr., recalled that his father's milk sold all over town. The dairy bottled its own milk, kept it cool in a large refrigerator box, and delivered it door-to-door from a truck. After Ullom's death, his wife Norma Brockman Ullom hired two Indians to help her run the dairy. However, due to her lack of business experience, the dairy eventually failed and she sold the cows to the Win Marshalls, a Mormon family in Overton.¹²

Even more extensive dairy operations took place in the Moapa and Virgin Valleys as a result of early Mormon influence. These areas, when combined with the Las Vegas Valley, generated impressive agricultural statistics. In 1920, Clark County dairy farms produced 182,147 gallons of milk, enabling ranchers to sell 33,650 gallons along with 1,985 gallons of cream and 11,812 pounds of butter. Each dairy cow produced an average of 368 gallons of milk. The sale of dairy products represented a respectable source of farm income. Therefore, local ranchers and farmers along with Southern Nevada's Agricultural Board, the Clark Country Farm Bureau, and staff members from the University's agricultural extension service concentrated their efforts throughout the 1920s to stimulate poultry and dairy production as part of the Las Vegas Valley's ongoing agricultural development.¹³

In December 1921, one of the farm bureau's primary goals was to expand the county's poultry raising industry. As a result, the Southern Nevada Agricultural Board, in cooperation with the Clark County Farm Bureau and Las Vegas's community center, held the First Annual Poultry show at the Overland Hotel on Main Street. The week-long program featured demonstrations by each of the county farm bureau's eight participating community centers along with detailed instructions from M.D. Collins, a poultry expert

from the University's extension service. He provided information on poultry and rabbit raising including culling, caponizing, feeding, housing, and marketing problems.

Farmers also exhibited their prime livestock at a judging contest with prizes awarded for good breeding and quality care. Program organizers encouraged all chicken fanciers to attend the show "with their choice birds and assist in placing this section on the map as a poultry district." The Age heralded the Las Vegas Valley's first poultry show and credited its enterprising poultry men for their untiring efforts because "with this spirit kept alive throughout the county, each of the Las Vegas, Moapa, and Virgin Valleys will soon come to the front as profitable poultry producing sections." ¹⁴

Along with poultry ranching, Clark County also considered dairy farming an important factor in the valley's continuing agricultural development. To promote more coordination, the Las Vegas Valley Farm Bureau in 1922 organized a joint meeting of county dairy farmers and poultry ranchers. Vernor Scott, dairy and poultry expert from the state university, county agent John Wittwer, and secretary of the farm bureau Floyd Gibson arranged for a series of demonstrations to be held at various times at area ranches. For example, James Williams's Hatchery demonstrated egg candling and grading while James Rockwell explained how to construct a chicken coop. Scott judged livestock and observed cow pastures at the Russell, Anderson, and Heaton dairy farms while Samuel Shaw talked about rabbit management for profit at his poultry and rabbit farm. Professor Scott also encouraged the poultry and dairy interests to organize and join farmers' groups like the Clark County Bull Association, organized by county agent Merrill as well as the first in the state, the Livestock Marketing Association, the Cow Testing Association, and most importantly, the farm bureau. ¹⁵

During the 1920s, in response to declining prices and profits, local farmers began affiliating with new agrarian organizations in large numbers, with small operators joining militant farmers' unions or the more conservative and business-like American Farm Bureau Federation. In Nevada, Lyon County first organized its farm bureau in 1918 to assist with community extension work while Clark County organized the following year. This organization served an increasingly supportive role in Southern Nevada's agricultural

development during the postwar years. Like chambers of commerce, fraternal associations, womens' clubs, churches, and other organized groups, the Clark County Farm Bureau exemplified rural community formation in Las Vegas. It also reflected the changing views of area farmers who began to view themselves as businessmen. Farm bureau members now combined business principles with agricultural practices.

In December 1919, members of the Clark County Farm Bureau met for the first time in Overton to establish specific agricultural goals and policies. Thereafter, the bureau gathered annually to elect a board of directors, organize projects for the following year, and formulate a budget for extension work using city, state, and federal funds. The recently elected board of directors included Moapa Valley ranchers Albert Witwer as president, Bert Mills as vice-president, S.A. Waymire as secretary, and Las Vegas Valley farmer B.R. Jefferson as treasurer. In succeeding years, Edwin McGriff and Dr. Roy Martin of Las Vegas as well as Robert O. Gibson of Moapa also served as presidents while C.C. Ronnow, Leroy and Mary Dutton of Dutton Gardens Farm, and rancher John Miller of Las Vegas along with Grace Howell of the Moapa Valley and Thomas Leavitt of the Virgin Valley were board members. In addition, Clark County Farm Agents Sewell Merrill and John Wittwer also sat on the board. Board members thus reflected the diversity of the farm bureau's membership as well as the continuing involvement of women in Southern Nevada's developing agricultural economy.

The new county farm bureau played an important role in addressing local problems. At the first meeting, members requested assistance from the State Veterinarian Control Service to test local dairy cattle for tuberculosis. They also formed a Livestock Marketing Association to stimulate the production of hogs, cattle, and poultry and improve their marketing techniques. Attendees also discussed future projects including silo construction, soil improvement, seed selection, farm contaminate removal, as well as the organization of a Farm Credit Association and library and magazine clubs. The local agency also voiced its support of a State Farm Bureau Federation and selected Merrill to represent them at the state conference in Reno in January 1920.¹⁶ In order to alleviate difficult times in the postwar era, bureau members also encouraged farmers to practice new farming methods, to educate

themselves, and to join their local county farm bureau

. The organization of the Clark County Farm Bureau signifies continuing unity between the rural and urban sector as well as the community's determination to develop an agricultural empire in Southern Nevada. The increasing involvement of farmers and ranchers in various associations also symbolized the growing postwar trend toward scientific agriculture. Therefore, associations like the farm bureau, with their interactive format, equipped farmers with a platform to articulate their growing concerns and provided a supportive network of peers.

Like their counterparts throughout the West, the Clark County Farm Bureau employed a decentralized approach and grouped the various farm enclaves of the sprawling county into sectors. The organization established eight community centers in Las Vegas, Warm Springs, Overton, Logan, St. Thomas, Bunkerville, Mesquite, and Kaolin . The bureau organized a number of community projects to improve crop, livestock, and poultry production, and increase the water supply. .

There were also other important initiatives. The county bureau, in association with the Las Vegas Chamber of Commerce, sent a resolution to the Department of Agriculture requesting the United States Bureau of Soils conduct a soil survey of the land around the Las Vegas Valley. The purpose was obvious. As one chamber member reported, this survey will "mean an expenditure into the thousands by the government, and when the survey is completed it will bring more farmers into this community. We look forward to seeing Las Vegas an agricultural center of the West." The efforts of farm bureau members along with those of the chamber, the Southern Nevada Agricultural Board, and the university's extension service succeeded in securing the soil survey for their community which was completed in the spring of 1923. County Extension Agent John Wittwer predicted that the information gathered by field workers for the soil survey "will be made available for public use and will prove of inestimable value to all institutions who are dependent upon agriculture as a basic industry of the county's welfare." George Hardman, head of the Agronomy and Soils Department of the Agricultural Experiment Stations, Professor Bixby of the extension service, and government surveyors conducted field operations for the Bureau of Soils. They examined all of the valley lands that could be

irrigated by artesian wells or pumping water, classified soil samples through chemical and physical analysis to determine their alkalinity, and reported their conclusions with a map of the area detailing different soil types and its fitness for agriculture.

At the conclusion of their extensive survey, field workers identified three factors including the amount of water for irrigation, alkali concentration in the soil, and the farm's location in terms of market access and types of crops grown which might effectively limit the Las Vegas Valley's potential for profitable agricultural development. Their report also noted that farmers and ranchers grew fruit annually in excess of local demand including 3,000 boxes of peaches, 800 boxes of apricots, 20 tons of grapes which were sold to local mining camps as well as blackberries, raspberries, cherries, apples, figs, plums and sweet potatoes for home use and local markets. The agricultural experts also provided encouragement to fruit growers when they verified that as bearing orchards matured and young trees began to produce, the production of fruit would substantially increase. A few vegetables supplied the town's market while nearby dairy farms met the valley's need for milk, cream, butter, and other dairy items. In addition, ranchers produced 500 acres of alfalfa, averaging six tons per acre. In fact, a majority of the valley's irrigated ranches raised alfalfa and sold surplus hay to local stock raisers.

Field operatives also filed informative reports regarding labor conditions on the surrounding farms as well as land values. They observed that the larger ranches employed farm hands during the summer season only while dairy farms used help year round. Most of the dairy workers were American born with milkers earning \$80 to \$90 a month plus board. Alfalfa ranchers paid their workers \$40 to \$50 a month plus board. Land values ranged from \$200 to \$400 an acre for better ranches with improved land, ranging from a few acres to 60 or 80 acres, and \$600 an acre for orchard lands. Unimproved farm lands brought between \$10 and \$15 an acre, depending on water availability. Moreover, the soil surveyors also acknowledged the fact that when raw desert lands became subdued, less water was required. This was welcome news to an agricultural community who depended upon water for their continued survival.

Clark County's soil survey was an important guide to locating and purchasing farm lands and therefore promoted the valley's agricultural development. Prospective buyers

were able to determine from soil survey maps and field work reports which lands were best suited for specific crop types as well as soil productivity and availability of water resources. In addition, soil surveys and land fertility provided the basis for valuation of farm lands which served as the foundation for an agricultural community's wealth. For example, financial institutions who handled farm loans or rural mortgage securities and industrial interests who depended on the land for their raw materials relied upon the information found in the soil surveys and maps and considered these reports a valuable aid to their business prosperity. A member of the local farm bureau emphasized that "the importance of the soil survey to the homeseeker in Clark County, to the bankers and other credit institutions, and to farmers already established, cannot be estimated." The on-going interest of the Las Vegas Chamber of Commerce in working with farm agencies and securing a soil survey indicates the close ties between the creation of a prosperous urban economy and surrounding agriculture. ¹⁷

In June 1922, the Clark County Farm Bureau used the soil survey project to increase its ranks. In its membership drive, the bureau also showcased its accomplishments in government legislation including the defeat of a bill for sales and transportation taxes, a reduction in railroad rates and overvaluation, and the passage of a bill for "farm to market" road improvements. The American Farm Board Federation was also lobbying the Harding administration for additional farm credits and cooperative marketing programs. Hopefully, a victory would prompt reluctant ranchers and farmers to join the local farm bureau. Despite the efforts of a small membership of business leaders and ranchers including McGriff, Jefferson, Ronnow, Miller, H.D. Taylor, and Dr. William Park in cooperation with the chamber of commerce and the Southern Nevada Agricultural Board, membership in the local bureau remained discouraging. Many farmers wanted to see results before joining. Undaunted, farm bureau members stressed the importance of soil survey work for their community and claimed that this project alone was "worth the consideration of every man whose family is dependent directly or indirectly on the soil products for an existence." Moreover, the organization depended upon a strong core of farm bureau members along with cooperative efforts in order for bureau projects to work

efficiently. For example, the bureau suggested that local farmers cooperatively grow sweet clover to reclaim their soil, plant standardized vineyards, orchard fruits or other proven crops, and experiment with new varieties. A systematic group effort to carry out this program would increase production and enable the marketing of local products on a commercial scale. Farm bureau members credited agriculture as the “true basis of the country’s welfare” and told farmers to have “faith,” and join the Clark County Farm Bureau. ¹⁸

Children also played a key role in this organizational movement, with farm bureau associates enlisting the aid of rural boys and girls in their membership drive. In October 1924, the Clark County Farm Bureau announced a farm essay contest open to all boys and girls enrolled in county schools up through their second year of high school. Entrants could choose one of two topics: “Why Dad Should Join the Farm Bureau” and “Why Dad is a Farm Bureau Member.” The First State Bank of Nevada contributed cash prizes for the winning essays--\$10 for first place, \$5 for two second place entries, \$2 for three third place winners, and \$1 for each of five runners-up. The farm bureau’s executive board, the county superintendent of schools, and the county agent served as judges. In addition, the winning essay would compete in the national contest sponsored by the American Farm Board Federation who would choose four national winners. The grand prize was a trip to Chicago to attend the national farm bureau meeting. In addition to recruiting farm boys and girls in the movement to strengthen membership, the farm bureau, with support from other related agencies, provided educational support and social activities for rural youth and their families. ¹⁹

In August 1924, the county farm bureau announced that the Union Pacific Railroad was offering a \$75 scholarship to boys and girls between the ages of sixteen and twenty-one who achieved the highest ranking in Boys’ or Girls’ Club work. Those who performed exceptional agricultural work with crops, livestock, or in farm management were eligible to compete. Male scholarship winners would attend the College of Agriculture at the University of Nevada while female recipients were given the option of taking agricultural or home economics courses. The Union Pacific would also reimburse

the student for their railroad fare. The scholarship offer indicated the railroad's continuing interest in Clark County's agricultural progress. ²⁰

Part of Southern Nevada's effort to improve its agricultural base was to keep rural youth involved with farming, educate them in agricultural schools, and foster their interest in staying on the land. Educated farmers stood the best chance of succeeding in areas where reclaiming the land required a variety of skills. Recognizing this, C. C. Ronnow sent his son to the University of Utah's College of Agriculture. Nevada youth could also enroll in vocational agriculture in high school and attend classes on animal husbandry, crop production, farm mechanics, and other subjects. In Clark County, Virgin Valley High School at Bunkerville and Moapa Valley High School at Overton offered vocational agriculture programs. By 1930, farm boys statewide were involved in 179 different projects. ²¹ In addition to attending agricultural institutions, rural children could also develop their skills as future farmers through membership in various 4-H Clubs organized by county extension agents.

Home demonstration agents for the university's agricultural extension service first organized 4-H clubs during World War I to get farm boys and girls involved in food production and conservation. During the 1920s and 1930s, membership in 4-H garden, beef, dairy, sheep, and poultry clubs were popular social activities for farm children. As a result of her superior club work, 4-H members selected 17-year-old Neca Jones of Overton to represent the national club membership in Washington, D.C in June 1931 as the most promising young farmer of the year. While visiting the nation's capital, Jones met with President Herbert Hoover on behalf of Southern Nevada's agricultural interests and thanked him for his work on the Hoover Dam project by presenting him with a box of Clark County peaches grown in McGriff's Orchard. She also decorated the tomb of the Unknown Soldier. ²² Ironically, the construction of Hoover Dam symbolized the beginning of the Las Vegas Valley's agricultural decline, with McGriff's peaches the last to be grown on a commercial scale. Until that time, however, Boys' and Girls' Clubs, 4-H Clubs, vocational education, prize-winning contests, farm bureau programs, and other activities served to foster cooperation among Southern Nevada's rural youth and keep them

involved in agriculture. ²³

The Las Vegas Chamber of Commerce also continued its involvement with the farm bureau and worked cooperatively with the Las Vegas Valley Farm Bureau's community center throughout the 1920s. Members with a business or farming background provided assistance with problem-solving and in promoting the valley's agricultural economy. The railroad also continued to encourage farming and advertise Southern Nevada's unlimited potential for growth. In October 1922, for example, the Las Vegas Chamber of Commerce hosted a joint dinner meeting with the Clark County Farm Bureau to discuss mutual problems concerning business interests and its dependency upon agricultural prosperity. Several speakers addressed the meeting, detailing specific problems facing area farmers and offering possible solutions--all in an effort to promote the agricultural economy. Pioneer rancher C.C. Ronnow, presiding over the meeting as toastmaster, introduced the Union Pacific Railroad's agricultural agent as the evening's first speaker. The railroad's plan to purchase livestock from twenty-five bonded agents located in various areas served by the Union Pacific for their Los Angeles-based stockyards was of particular interest to valley ranchers and Las Vegas forwarding merchants. The agent announced the railroad's intentions of making Las Vegas the central feeding point for all stock traveling through Southern Nevada. Because the Las Vegas Valley's hay production was inadequate for the local market, the Union Pacific was building branch lines from its main lines to Fillmore and Cedar City to aid in Clark County's development. As a result, the agent urged local ranchers to increase their production efforts in order to profit from the livestock market being opened up to them. Speakers from the university's agricultural extension service addressed the issue of declining farm income. Director Cecil Creel discussed the current agricultural situation on the national level, and suggested that in order to develop Nevada, community leaders needed to attract farmers from other states. But he admitted that agriculture could not bring in newcomers when average farm income amounted to only \$700 a year compared to \$1600 for railroad workers. Factory wages only worsened the problems. Creel conceded that the "back to the farm" movement was faltering because farmers were flocking to industrial jobs where wages were higher, with hours more stable

and secure. In conclusion, he emphasized the importance of continuing cooperation between farm bureau and chamber members as well as the extension service in solving problems. Creel argued that the solutions to solving the problems of soil conditions, water development, and crops and getting information to new farmers could be found on already established ranches and farms.²⁴

Throughout the 1920s and early 1930s, Clark County farmers followed Creel's advice to promote productivity. However, by the early 1930s, it was becoming clear that the Las Vegas Valley's agricultural development was in decline and that Southern Nevada would never match the farm belts of California, Arizona, and other western states. Although ranchers and farmers until 1930 managed to achieve a measure of success at uncovering Southern Nevada's agricultural potential, several factors brought about its eventual demise including diminishing water availability, soil alkalinity, lack of capital, insufficient markets, increasing competition from California's agri-businesses, inadequate horticultural knowledge, marketing problems, and the adoption of tourism and legalized gambling as promising new economic activities.

The most serious setback, however, was lack of water for farm use. Despite the promise of water for irrigation and power for well pumping operations from the Colorado River Dam project to boost Southern Nevada farming, it did not materialize. In 1924, Edwin McGriff had described the Colorado River Project as "one of the greatest dams and reservoirs in the world" as it held the valley's agricultural future. Even as late as 1930, members of the Nevada Colorado River Commission including business leaders Dr. Roy Martin, James Cashman, Ed Clark, and "Pop Squires," along with Moapa Valley rancher Levi Syphus and local newspapers heralded the Boulder Dam project as a boon to local agriculture. Indeed, predicted that valley fields "will be irrigated by cheap power for pumping and farmers will prosper from newly created markets."²⁵ Throughout the 1920s and early 1930s, this dream sustained the area's farming efforts. However, as Mark Twain once remarked, "in Nevada whiskey is for drinkin' and water is for fightin' over." Nineteenth century litigation over water rights in Nevada had established the doctrine of "prior appropriation" which decreed that water belonged to the people first and could be

removed by law from the land. As a result, usage laws diverted water from farm and ranch lands to supply Las Vegas's growing urban population. Moreover, the location of Lake Mead's Reservoir 1,000 feet below the valley also precluded the construction of a large canal system to deliver water for large-scale crop irrigation. Ironically, Hoover Dam encouraged the urbanization which siphoned off the reservoir's water supply to cities like Los Angeles and Las Vegas.

Southern Nevada's water diversion practices also created funding problems and a chronic shortage of capital. McGriff, as spokesman for local farming interests, identified limited cash reserves as the most crucial deterrent to the growth of the valley's agrarian economy. He argued that "the man with limited means cannot develop a ranch here on the desert and bring it to a productive stage with financial assistance. Here money is scarce or not alway available for farm purposes." Capital for farm or ranch development remained inadequate because the government denied federal loans to Las Vegas Valley farmers whose land was irrigated exclusively by artesian wells. Federal farm loans were made available only for land owners with property watered from living streams or a known source. Because artesian well water represented an unknown or indefinite quantity, it did not provide a secure base on which to loan money. Despite determined efforts by the local farm bureau, farmers and ranchers simply could not overcome mounting external forces impeding their progress.

There were efforts to reconcile the divergent interests of city and farm. In the mid-1920s, McGriff and town boosters promoted agriculture as a means of attracting tourists. They suggested that "it would look better to the tourist as he passes through the Vegas Valley to ride through orchards and vineyards than through miles and miles of desert waste. Let us put forth some effort to convert this old desert into one continuous farm land...then we'll have no desert but a place where the tourist and the traveler will love to come." Tourists would eventually come to the Las Vegas Valley, but it would not be to view orchards, vineyards, or fields of grain.

By the late 1940s, thousands of acres of farm land would be paved over for suburban housing projects, commercial enterprises, roads, and casino development. According to George Hardman, former director of the Las Vegas Experiment Station, until

the 1930s residents viewed Southern Nevada from an agricultural standpoint. However, Boulder Dam and later, World War II transformed Las Vegas forever, replacing agriculture with recreation, tourism, and casino gambling.²⁶

As this study has attempted to demonstrate, agriculture helped shape the demographics, economics, and society of Southern Nevada from 1870 to 1930. Historically, Southern Nevada resembled the ranching and farming zones of California, Arizona, and other western regions where mining and railroad operations established the foundation for towns. For five decades, city and hinterland efforts to establish farming in the valleys of Southern Nevada reflected distinctive as well as similar patterns of development. Whether it was the earliest ranchers and farmers who grew food for booming mining camps or the lonely cattle herders on the isolated rangelands or the settled men and women pioneering family farms in desert enclaves, each mirrored the common activities of settlers throughout the American West. Like their counterparts in Arizona and other arid regions, Southern Nevadans succeeded because of their willingness to cooperate, their ability to adapt to a hostile environment, their eagerness to experiment with modern farming methods and untried crops, and, most of all their unwavering determination to conquer the forces of nature. Their success in making the desert bloom was remarkable. In the process, agriculture slowly knit the disparate towns, farms, and ranches together into a farflung community of interests and social interaction. To be sure, the degree of cooperation consistently displayed by urban businessmen, university agronomists, railroad executives, town boosters, and rural associations, in helping local ranchers and farmers was also noteworthy. The founding of Las Vegas in 1905 created a focus to coordinate efforts while the town acted as a clearinghouse for ideas, credit, and encouragement to promote agriculture as the valley's chief industry. And while the town's eventual transformation into a resort city would largely destroy the old economy, the sense of community and cooperation forged in the early decades of this century would play a major role in the determined effort to make Southern Nevada a world-renowned destination.

APPENDIX I

NOTES

Chapter 1: Agrarian Roots of Southern Nevada, 1855-1870

- ¹ Jake Highton, Nevada Newspaper Days, (Stockton: Heritage West Books, 1990) 1.
- ² A popular catch phrase of the 1900s. William H. Goetzmann, Exploration And Empire, (New York, 1966), 305. Goetzmann, in commenting on the contrasting image of "a garden in the desert," suggested that the garden meant a belief in the economic potential of the West while the desert implied the belief that the West was a land of scarcity that would take centuries to develop.
- ³ Gilbert Fite, The Farmers' Frontier 1865-1900, (Oklahoma: Holt, Rinehart, and Winston, 1966), 9.
- ⁴ Fite, Farmers' Frontier..., 6-7. C. Elizabeth Raymond, "Sense of Place in the Great Basin," Wilbur S. Shepperson, ed., East of Eden, West of Zion: Essays on Nevada (Reno: University of Nevada Press, 1989), 17-18. Ralph Roske, Las Vegas: A Desert Paradise (Tulsa: Continental Heritage Press, 1986), 23. Samuel Bowles, editor-owner of the Massachusetts Springfield Republican and author of several travel books also viewed the West as unsuitable for agriculture.
- ⁵ Westerners typically referred to farms as ranches and the terms are used interchangeably. One Colorado newspaper suggested doing away with the word ranch altogether as it implied primitive conditions and repelled "home-loving farmers of the East thus deterring the settlement of the West. See Robert G. Athearn, The Mythic West in Twentieth-Century America (Lawrence: University Press of Kansas, 1986.) 30.
- ⁶ James W. Hulse, The Silver State, (Reno: University of Nevada Press, 1991), 21.
- ⁷ Goetzmann, Exploration, 134. Stanley W. Paher, Las Vegas, As it began--as it grew (Las Vegas: Nevada Publications, 1971), 40.
- ⁸ Las Vegas Age, September 17, 1930, Section 4--page 7, September 16, 1916. Water mounds are earthworks formed over springs where grasses and bushes grow in abundance. The vegetation catches drifting sand which forms a cover over the springs.
- ⁹ Southern Nevada Times, 7-8, Arda M. Haenszel, Searchlight Remembered, (Norco: Tales of the Mojave Road Publishing Company, 1988) 83. Florence Lee Jones, "Las Vegas, Golden Anniversary Edition," Review-Journal special edition for February 28, 1955, 6. According to Paher, in 1878, the Mojaves entered the Las Vegas Valley to engage the local Paiutes in a skirmish and to strip the wild grape harvest off the vines. Known as "the Grape War," the Paiutes successfully routed the Mojaves sending them away empty-handed. Paher, As it began, 40.
- ¹⁰ Deseret was a vast tract of land claimed by the Mormons. encompassing the Great Salt Lake Valley, the western Great Basin, and southern California. Mormon President Brigham Young hoped that the "State of Deseret" would eventually be admitted to the Union. Hulse, The Silver State, 51.

¹¹ Jones, "Golden Anniversary Edition," 6. Paher, As it began, 15. Henry Goode Blasdel, the first elected governor of Nevada (1864-1870), was originally a mining man. While on a trek to Southern Nevada to view, first hand, Mormon agriculture and their mining operations, he and his party got lost in the desert. One man died and the others were forced to eat lizards for survival. See Robert Laxalt, Nevada, a History, (Reno: University of Nevada Press, 1971) 73.

¹² Nevada Power Promotional Pamphlet, Trails to Rails, 11.

¹³ Perry Bruce Kaufman, "Best City of Them All: A History of Las Vegas, 1930-1960," (Phd Dissertation, August 1974). Mining camps became markets for produce. Southern Nevada mining camps included Mt. Potosi, El Dorado, Nelson, Searchlight, Goodsprings, Tonopah, Goldfield, Rhyolite, and others.

¹⁴ See Robert G. Athearn, Westward the Briton, (Lincoln: University of Nebraska Press, 1953), 122.

¹⁵ Paher, As it began, 33.

¹⁶ W. Eugene Hollon, The Great American Desert, (New York: Oxford University Press, 1966), 130. Ray Allen Billington and Martin Ridge, Westward Expansion: A History of the American Frontier, (New York: Macmillan Publishing Co., 1982), 612.

¹⁷ Age, December 10, 1910.

¹⁸ Russell R. Elliott, History of Nevada, (Lincoln: University of Nebraska Press, 1984.), 108. John L. Riggs, "The Reign of Violence in Eldorado Canyon," Nevada Historical Society Third Annual Report, 1911-1912, 1

CHAPTER 2: Ranching On the Desert Frontier, 1870-1900

¹ Wilson's Ranch, probably the third established in the area, dates from the 1860s and was originally settled by "old Bill" Williams--mountain man and part-time cattle rustler. Lieutenant George M. Wheeler, a member of the Engineer Corps conducting geological surveys in the region, noted the site on an 1869 map as "Old Bill Williams's Ranch." See Roske, A Desert Paradise, 26, Southern Nevada Times Reproduction Clips, 9.

² Paher, As it began, 40.

³ For more information on the Kiel (sometimes spelled Kyle), Gass, and Stewart families see Paher, As It Began, Roske, Desert Paradise, Carrie Miller Townley, "Helen J. Stewart: First Lady of Las Vegas," Part One and Two, Nevada Historical Society Quarterly, vol 16, Las Vegas Age, July 16, 1921, 1.

⁴ Fite, Farmers' Frontier, 16-17, 32, 186. Purchasing land was the primary means of acquiring land and obtaining a farm after 1865. Goetzmann, 572. Richard White, "It's Your Misfortune and None of My Own": A New History of the American West (Norman: University of Oklahoma Press, 1991) 142, 151.

⁵. Michael P. Malone, Ed., Historians and the American West, (Lincoln: University of Nebraska Press, 1983, 210. Michael C. Robinson, Water For the West and the Bureau of Reclamation, 1902-1977, (Chicago: Public Works Historical Society, 1979), 7.

⁶. Robinson, Water For the West, 7.

⁷. Bureau of Soils, Field Operations pamphlet--Soil Survey of Las Vegas Area, Nevada, 1923, 205-206. Progressive Era legislation recognized irrigation as a political issue and several reforms were implemented--the Carey Act passed in 1894 and amended in 1911, the Newlands Reclamation Act of 1902, the Enlarged Homestead Act of 1909 and 1916 and other emendations.

⁸. Athearn, Mythic West, 233.

⁹. Age, October 27, 1905. Florence M Boyer, Las Vegas, Nevada: My Home for Sixty Years, University of Nevada Oral History Project, 1973, 68.

¹⁰. Anne Brauer, "A Resting Place," Nevada Bicentennial Book, 292-93.

¹¹. Ibid.

¹². Robert D. McCracken, A History of Pahrump, Nevada, (Tonopah, 1990), 13, 19. Denny Lynch, Story of Pahrump Valley, Nye County, Nevada, (Pahrump: Published by the author, 1979) passim. Givens married Sylvia, Indian John choose Ectah, and Cecil claimed Little Star, a half-Mexican Paiute as his wife.

¹³. Ibid.

¹⁴. Yount traded his remaining cattle to the Hordan brothers for the Manse Ranch located six miles south of Bennett's. The property included a 12-by-14 foot house, crudely constructed with a sod roof and dirt floor, and eight acres of barley newly sprouted. See John Doherty, "The History of the Settling of the Manse Ranch and Territory," Notes and Documents, Nevada Historical Society Quarterly, vol. x, 165-168. Leon Rockwell, Recollections of Las Vegas, Nevada, 1906-1968, University of Nevada Oral History Project, 1969, 36. According to Rockwell, one of the brothers moved to town and opened the Gem Saloon, located first on the street of block 16. Rockwell described Johnny as "a feisty little Irishman who would rather fight than eat." Hordan also owned a hotel with Harry Beale. McCracken, History of Pahrump, 36.

¹⁵. Doherty, "History of the Manse," passim. A header is a grain-harvesting machine that cuts off grain heads and lifts them into a wagon.

¹⁶. Ibid.

^{17*} McCracken, History of Pahrump, 40. In 1882 Helen Stewart voiced concern over the lack of educational opportunities in Las Vegas. She was able to persuade Megarrigle, a twenty-year resident of Lincoln County, to live at the ranch and provide an education for her children. After many years of traveling around the countryside teaching children of ranching families, Megarrigle settled permanently at the Las Vegas Ranch where he remained until his death in 1894. See Townley, "Helen J. Stewart," 238. Lynch, Story of Pahrump, passim.

^{18*} Harold O. Weight, Twenty Mule Team Days in Death Valley Third Annual Report, State Mineralogist of California, 1883 on "The Long Line Skinners," by Henry G. Hanks, 32.

^{19*} Ironically, the now elderly couple were interviewed at their San Bernardino home by Commissioner Fred Clark from the Federal Claims Bureau in Washington, D.C. He was investigating a claim made against the government in 1877 in the amount of \$700 for the loss of Yount's horses killed by renegade Paiutes. Age, September 30, October 27, 1905.

^{20*} McCracken, A History of Pahrump, 57.

^{19*} Roland H. Wiley attempted to raise pheasants on his ranch but the project proved unrewarding. See Review-Journal September 9, 1991, 1C. Wiley attempted to sell his ranch in the 1980s to a group of Japanese businessmen for \$15 million. He died in August 1994 at the age of ninety. Wiley's wife Mary reported that the 14,000-acre ranch would likely be sold. See Review-Journal, August 19, 1994, 5b.

^{20*} See Weight, Twenty Mule Team Days, 4, 26fn. William T. Coleman's company, Greenland Salt and Borax, purchased the rights to the borax claims discovered by Aaron Winters in 1880. Coleman acquired Bennett's former ranch, the Greenland Ranch (now the Furnace Creek Ranch), and planted alfalfa, fruit trees, and Fremont cottonwoods on forty acres irrigated by the nearby creek. Borax is a sodium-based mineral compound used for metal fusion, as a cleaning agent, and a water softener.

^{21*} Weight, Twenty Mule Team Days, 6.

^{22*} Ruth B. Moynihan, Susan Armitage, and Christiane Fischer Dichamp, eds., So Much to Be Done: Women Settlers on the Mining and Ranching Frontier (University of Nebraska Press, 1990), 218.

^{23*} *Ibid*, 4.

^{24*} Lynch, Story of Pahrump, 64. 1880 Census Records. McCracken, History of Pahrump, 32-33. Age, October 5, 1905.

^{25*} Three single males, Timothy Shea, an Irishman from Illinois, Aaron Cleavland from California, and George Watkins. 1880 Census Records. Robert D. McCracken, A History of Amargosa Valley, Nevada, (Tonopah, 1990), 36-37.

²⁶ Harry P. Gower, "It Don't Hurt None," Death Valley Tales, Publication no. 3, 61. Some of Ishmael's acquaintances considered him a rough character after he stole a horse for three days, rustled a steer to feed his hungry kids, and shot a deer out of season or a mountain sheep, never in season. According to W. W. Cahill, superintendent of the Tonopah and Tidewater Railroad, George was rough from the start. Cahill had paid a visit to "old man" Ishmael around 1900 where he had observed George as a baby lying on the ground suckled by a hound bitch. Cahill protested to the father who replied "forget it, he does it all the time and it don't hurt him none."

²⁷ Mrs. George Fayle, for whom Jean, Nevada, was named, purchased the Sandstone ranch in the 1920s. In 1929, it was sold to Willard George, a Hollywood furrier by trade, who added a chinchilla farm. George, a family friend of the Wilsons let the brothers live on the ranch until their death. The two brothers along with their adopted father James Wilson, Sr. are buried on the ranch. In 1944 it was leased to radio personality Chester "Lum" Lauck of the "Lum and Abner" show. He purchased the ranch in 1948 and renamed it the Bar Nothing. It was used as a vacation retreat, a summer camp for boys, as well as a cattle ranch. In 1956 the ranch was sold to German munitions heiress Vera Krupp (second wife of Alfred). She expanded the cattle operation, added a swimming pool, and renamed it the Spring Mountain Ranch. Krupp later sold the ranch to the Howard Hughes Tool Company of the Summa Corporation for executive use in 1967. The ranch was acquired in 1972 by Fletcher Jones and William Murphy for a condominium development but public protest stopped the project. In 1974 the property was sold to the Nevada Division of Parks and established as a state park, museum, and historical site. See Richard Moreno, "Lifestyles of the Rich and Famous," in The Backyard Traveler Returns, (Carson City: Children's Museum, 1992), 67-69. Roske, Desert Paradise, 47. 1880 Census Records.

²⁸ George Anderson, Wilson's former partner, was believed to be their father. See Roske, Desert Paradise, 47. Census records present conflicting information. For example, the 1910 census shows their father to be Mexican or Spanish while the 1920 records show Tweed's father as being from Iowa and James's from Scotland.

²⁹ See Roske, Desert Paradise, 47. Haenzel, 58. 1880 Census Records. Until 1880 Mrs. John Weaver was the only white woman in El Dorado Canyon. Riggs, "Reign of Violence", 3. Susan L. Johnson, "Sharing a Bed and Board: Cohabitation and Cultural Difference in Central Arizona Mining Towns," Frontiers, A Journal of Womens Studies, vol.7 no. 3, 1984, 36-41. Sylvia Van Kirk, "The Role of Native Women in the Creation of Fur Trade Society in Western Canada, 1670-1830," Susan Armitage and Elizabeth Jameson, eds. The Women's West, (Norman, 1987), 53-7.

³⁰ 1910, 1920 Manuscript Census.

³¹ 1920 Manuscript Census.

³² After the opening of the El Dorado Canyon mines, an influx of miners flooded the area much to the dismay of local Indians. By 1866, 760 mineral lodes and 850 mining deeds were recorded in the district. In 1863, four men were killed by "hostiles" while working at the Silver Hill Mine. To forestall further trouble the federal government sent the 9th United States Infantry, Company D to set up a garrison at Ft. Mojave at the mouth of El Dorado Canyon. See Sherryl L. Weber, "Effects of the Reservation System and White Civilization on the Southern Nevada Paiutes, 1870-1919," (unpublished paper, May 1988), 2, Roske, Desert Paradise, 34, 37. Robert Laxalt, Nevada: A History, (Reno: University of Nevada Press, 1977), 82.

³³ Age, May, 7, 1910.

³⁴ Elmer R. Rusco, "Purchasing Lands for Nevada Indian Colonies, 1916-1917," Nevada Historical Society Quarterly, spring 1989, Vol. 1, 1. According to the United States Census Bureau, the population at the Moapa Reservation in 1910 was approximately 20, in 1916 it was 119.

³⁵ Paiute Indian trackers were often used as scouts to hunt down renegades. Southern Nevada experienced several incidents of renegade violence between 1896 and 1919. Indian Mouse, employed at Bonelli's Rioville Indian workers's camp, went on a rampage in the winter of 1896; Ahvote in 1899 at El Dorado Canyon, and Quejo, the last renegade and the most well-known, between 1909-1919. See Weber, "Effects of the Reservation System," 11-19.

³⁶ Paher, As it began, 43, 37, Roske, Desert Paradise, 32.

³⁷ 1880 Manuscript Census. Roske, Desert Paradise, 30, 37.

³⁸ The community was renamed Logan after its founder but in June of 1917 changed again to Logandale to avoid confusion with Logan, Utah.

³⁹ Roske, Desert Paradise, 47. 1880 Manuscript Census. In August 1869 as members of John Wesley Powell's Historic Colorado Expedition--at journey's end--rested at the Mormon camp at Callville, they were given delicious melons brought down from St. Thomas. See Goetzmann, Exploration, 551. In 1931, St. Thomas was inundated by Lake Mead Reservoir upon completion of the Hoover (Boulder) Dam project. The federal government compensated the displaced farmers for their property losses and many reestablished farms in the Pahrump Valley and in other locations.

⁴⁰ 1880 Manuscript Census. Mary Stano, "Dan's Ferry," The Nevadan Today, February 26, 1989, 8cc. For more information on the Mormon settlements see Pearson Starr Corbett, "Settling the Muddy River Valley," Nevada Historical Society Quarterly (1975), 141-151, Arbell Lee Hafner, One Hundred Years on The Muddy, (Springville, 1967), Roske, Desert Paradise, 26-30, 47-50, Florence Lee Jones, "Golden Anniversary Edition," Las Vegas Review-Journal, February 28, 1955, Transportation Section, 6-8.

⁴¹ Jones, "Golden Anniversary Edition," 6-8. Roske, Desert Paradise, 50. 1880 Census Records. Imre Sutton, "Geographical Aspects of Construction and Planning: Hoover Dam Revisited," Journal of the West, vol.II (1968), 310. The Mormon agricultural hamlets of the Moapa and Muddy Valleys remain the most enduring and tenacious of farming areas. In 1930 one observer described the valley as having a few scattered farms and ranches located in a moderately prosperous agricultural community "reflecting one continuous sweep of green fields and leafy trees." The area was populated by 1200 mostly Mormon residents turning 8000 acres into irrigated crops.

⁴² 1870 Manuscript Census, Fite, Farmers' Frontier, 47.

⁴³ Compendium of the Ninth Census of the United States, 1870. More specifically: 581 horses, 158 mules and asses, 500 milch cows, 273 working oxen, 1674 sheep and 120 swine. Crop production included 2995 bushels of winter wheat, 4200 bushels of barley, 1169 tons of hay, 6080 bushels of Indian corn, 260 bushels of Irish potatoes, 4690 pounds of wool and 4420 pounds of butter. Compendium of the Tenth Census of the United States, Production of Agriculture, 1880 for Lincoln county enumerates 1511 horses, 76 mules, 44 oxen, 901 milch cows, 2611 cattle, 800 sheep, and 906 swine. Crop production: 792 acres of barley producing 19,904 bushels, 324 acres of Indian corn producing 8415 bushels, 42 acres of oats producing 790 bushels, and 148 acres of wheat producing 3425 bushels. Agricultural Nevada, pamphlet issued by Sunset Magazine's Homeseekers' Bureau, (San Francisco, 1911).

Chapter 3: The Development of the Las Vegas Valley: Transportation, Water, and Land, 1900-1915

¹ Roske, Desert Paradise, 143. The State Land Act of 1885 encouraged farming on marginal land in Nevada with less dependable water supplies. As a result, fewer "squatters" settled on government property and homesteaders became more intent on improving the land and growing crops. Townley, "Helen J. Stewart," 236. Carrie Miller Townley, Helen J. Stewart's biographer, has suggested that ranchers spread the rumors in order to get a railroad line into Lincoln County more rapidly, and were not actually suffering from competition. Review, December 25, 1909, January 15, 1910. Paula Petrik, No Step Backward: Women and Family on the Rocky Mountain Frontier, (Helena, Montana, 1986).

² Townley, "Helen J. Stewart," 236.

³ Miner's inches refers to the standard measurement of water, under four inches of pressure, or the amount that will flow through an inch-square-opening under pressure of four inches. It measures from the surface of the water in the conduit to the center of the opening through which it flows. This is approximately nine gallons per minute which would cover ten acres, eighteen inches deep in one year. This equals eighteen inches of rain distributed when and where needed. The West: A Collection From Harper's Magazine, (New York: W.H. Smith Publishers, Inc. Imprint, 1990), 236.

⁴..This land became the Desert Rose Golf Course in recent years. Las Vegas Age, April 17, 1920.

⁵. Fite, Farmers' Frontier, 33.

⁶. Searchlight Bulletin, June 9, 1905.

⁷. Ibid, July 22, 1904.

⁸. Paher, As it began, 77, Roske, Desert Paradise, 55.

⁹. Robert G. Athearn, The Mythic West In Twentieth-Century America, (Lawrence: University Press of Kansas, 1986), 251-252.

¹⁰. Geotzman, Exploration, 597. Age, November 4, 1905, February 24, 1906.

¹¹. This well-drilling contract was let to Booth and Madison of Los Angeles. Age, January 5, 1907. The three demonstration wells flowed 301 feet, 442 feet, and 380 feet respectively. Review, September 18, 1909.

¹². Review, October 2, 1909.

¹³. Ibid, October 30, 1909, October 29, 1910, January 7, 1911.

¹⁴. Ibid, October 2, 1909, Las Vegas Times, February 17, 1906.

¹⁵. Age, "Prosperity Edition," April 6, 1912.

¹⁶. Ibid, May 6, 1911, Age, "Prosperity Edition," April 6, 1912, January 25, 1913.

¹⁷. Review, March 12, 1910.

¹⁸. Ibid, April 16, 1910, Age, "Prosperity Edition," April 6, 1912, April 13, 1912.

¹⁹. Age, March 24, 1906, June 8, 1912. See Review, January 3, 1914, regarding the cheap pumping of water. Las Vegas, Nevada: Where Farming Pays, The Artesian Belt of Semi-Tropic Nevada, issued by the Las Vegas Chamber of Commerce, 1913, 12. By 1909, rig operators had drilled the thirteenth artesian well, in 1913, one hundred wells were located, in 1930 there were approximately 300 wells and 450 by 1944. According to Paher, the Las Vegas Ranch and the Las Vegas Creek dried up after World War Two due to extensive artesian well-drilling over the years. Roske, Desert Paradise, 109. Other well stats.sources. United States Bureau of the Census, 13th Agricultural Census 1910, vol. VII, 95.

²⁰. Age, November 23, 1912, Where Farming Pays, 1913 chamber of commerce pamphlet, 25. Philip Steinman, Beechwood Flats, (New York: Vantage Press, 1960), 137.

²¹.. Age, November 23, 1912.

²². Ibid.

^{23.} Review, November 6, 1909.

^{24.} Ibid, October 30, 1909.

^{25.} Ibid, September 18, 1909.

^{26.} Ibid, March 5, 1910, November 27, 1910.

^{27.} Age, March 24, 1906, October 13, 1906, Clark County Review, November 27, 1909, December 11, 1909, March 5, 1910, Florence Lee Jones, "Las Vegas, Golden Anniversary Edition," Review-Journal special edition for February 28, 1955, 6, 10, Leon Rockwell, Recollections of Life in Las Vegas, Nevada 1906-1968, (University of Nevada Oral History Project, 1969, 106, Florence M. Boyer, Las Vegas, Nevada: My Home for Sixty Years, (University Of Nevada Oral History Project, 1967), 20-21, Paher, As it began, 147, Roske, A Desert Paradise, 64. In June of 1911 Ladd's Resort opened at the former ranch remaining in business until the 1920s and 1930s. The resort had a dance floor with music provided by a four-piece orchestra. The reservoir was later turned into a swimming pool--Ladd's Plunge--and, according to Florence Lee Jones-Cahlan, "liberally patronized where bathing in the warm artesian water was much enjoyed." A busline operated to the resort providing easy access. Jones, "Golden Anniversary Edition," 6. In 1909 Ladd acquired another 160-acre homestead. Leon Rockwell described Ladd as a "great character with nice real estate holdings and plenty of money." During prohibition "Ladd hoarded good-bonded whiskey--enough to fill a trunk--in a closet under two locks. Someone later stole it." Rockwell, Recollections of Life, 106. In 1928 Ladd was listed as one of the veteran voters of Las Vegas. "He cast his first vote for Abe Lincoln in 1864 in Rising Sun, Indiana and in 1928, he voted in Las Vegas and was looking forward to the next election," Jones, "Golden Anniversary Edition," 6.

^{28.} Review, November 27, 1909.

^{29.} Richard Dillon, ed., Western Quotations: Famous Words From the American West, (Tempe, 1993), 96.

^{30.} Nevada's population between 1900 and 1910 increased 93.4 percent, with 39,540 people, and the number of farms increased by 505 or 23.1 percent. United States Census Bureau, Compendium of the 13th Census, Volume VII, 37. Where Farming Pays, 1913 chamber of commerce pamphlet, 24. Review, June 17, 1911.

^{31.} Athearn, Mythic West, 32-33.

^{32.} Government policy pertaining to agricultural lands in arid climates was in a constant state of emendation. The federal government amended the Desert Land Act in 1891, 1911, and 1914, and the Homestead Act in 1907, 1909, 1912, and, in 1916, as the Enlarged Homestead Act.

^{34.} Review, April 8, 1911, April 18, 1914. Where Farming Pays, 1913 chamber of commerce pamphlet, 24. David Lavender, The Great West, (Boston: Houghton Mifflin Company, 1965), 436. Age, October 26, 1907.

^{35.} Age, October 26, 1907. The Homestead law also stipulated, as a precaution against fraud, that homesteaders making entries after November 1, 1907 reside on the land for fourteen months before obtaining title with a cash payment. This new law did not affect rulings prior to November 1, 1907. At that time homesteading required an eight month residency. According to Fite, the commutation provision opened up a means to violate the democratic intent of the Homestead Act. See Fite, Farmers Frontier, 17.

^{36.} Where Farming Pays, 1913 chamber of commerce pamphlet, 24. Marshall Bowen, "The Desert Homestead as a Non-Farm Residence," Nevada Historical Society Quarterly, vol. 31, Fall 1988, No. 3, 204-205. Fite, Farmers' Frontier, 101.

^{37.} 1910 Census, Review, June 10, 1911.

^{38.} 1910 Census, Rockwell, Recollections of Life, 68.

^{39.} Manuscript Census 1910, Review, May 20, 1911, Fite, Farmers Frontier, 102.

^{40.} "It's Your Misfortune," White, 150.

^{41.} Age, October 14, 1905.

^{42.} Ibid, August 17, 1907.

^{43.} George Brown Tindall, America: A Narrative History, (New York: W.W. Norton and Company, 1988), 958. Where Farming Pays, 1913 chamber of commerce pamphlet, 32.

^{44.} Elliott, History of Nevada, 174-176, Robinson, Water for the West, 9. According to Robinson, before 1901, the Carey Act failed due to unwilling investors and incompetent state's administrators. By 1902, 11,321 acres were taken up and a million or more assumed in later years. Also see Dumke, "Mission Station to Mining Town," 269, Fite, Farmers' Frontier, 63.

^{45.} Age, September 21, 1907, November 23, 1910.

^{46.} Review, October 23, November 6, 1909, January 29, February 19, May 21, 1910, January 28, 1911, January 3, 1914. Ironically, in the March 20, 1994 edition of the Review-Journal's 13th Annual Best of Las Vegas "Best of the Worst" section, the newspaper chose Californians as the worst problem facing Las Vegas. They argued that "there is something about the Californiaization of Las Vegas that is disconcerting. Do we really need more fast-food outlets? More traffic and pollution? Or people complaining that we don't have the culture and entertainment venues of Southern California? Becoming L.A., Jr. is not an attractive thought." See Review-Journal, March 20, 1994, 86.

^{47.} Review, March 14, 1914.

^{48.} Ibid, June 24, 1911.

^{49.} Ibid, January 29, 1910, March 11, 1911.

^{48.} Ibid, January 28, 1911, Age, "Prosperity Edition," April 6, 1912, April 13, 1912, Review, May 13, 1911.

^{49.} Review, February 19, 26, March 26, 1910.

^{50.} Ibid, June 17, 1911.

^{51.} Ibid.

^{52.} Elliott, History of Nevada, 176, Fite, Farmers' Frontier, 189-190.

Chapter 4: Ranch Building in the Las Vegas Valley, 1910-1920

^{1.} Gerald D. Nash, The American West in the Twentieth Century: A Short History of an Urban Oasis, (Albuquerque: University of New Mexico Press, 1985), 13.

^{2.} The town of Las Vegas included 173 married couples or 36.6 percent of the total population and 48.3 percent of all adults. The children of these marriages represented 23.7 percent of the population--63 teenagers and 162 under the age of thirteen. Among the older citizens, 7 percent or 66 individuals were over the age of fifty-five. These figures reflect the census patterns of the townsite only but are representative of the outlying agricultural areas as well. Eugene P. Moehring, "Profile of a Nevada Railroad Town: Las Vegas in 1910," Nevada Historical Society Quarterly, (1991), v. 34, no. 4., 469-471.

^{3.} Where Farming Pays, 1913 chamber of commerce pamphlet, 16-17.

^{4.} Paher, As it began, 119, Stanley Paher, ed., "Agriculture," Nevada Official Bicentennial Book (Las Vegas: Nevada Publishers, 1976), 425, Nell Murbarger, "...And the Desert Shall Rejoice," Ghosts of the Glory Trail, (Palm Desert: Desert Magazine Press, 1956), 248, Richard G. Lillard, Desert Challenge: An Interpretation of Nevada, (Lincoln: University of Nebraska Press, 1983), 117, Where Farming Pays, 1913 Chamber pamphlet, 25. Review, March 12, 1910, January 3, 1914.

^{5.} Review, January 3, 1914.

^{6.} Ibid, January 24, 1914.

^{7.} Age, June 28, 1913.

^{8.} Review, February 5, 1910. In April 1932, cowboy movie star Rex Bell appeared before Clark County's Board of Commissioners to get approval for pruning yucca trees near his Searchlight ranch. He planned to manufacture the plant fiber as an experimental material similar to hemp. The commissioners named a committee to study the plan. Jones, "Golden Anniversary Edition," "Entertainment Section," 10-11.

^{9.} Where Farming Pays, 1913 chamber of commerce pamphlet, 25, Age, 1910, Review, March 12, 1910, January 15, 1910.

^{10.} Age, 1910, Review, January 15, 1910, Age, "Prosperity Edition," April 6, 1912.

- ¹¹ Steinman, Beechwood Flats, 138.
- ¹² Review, April 23, 1910, 1913 chamber of commerce pamphlet, 28.
- ¹³ Athearn, Mythic West, 27, Review, March 12, 1910, October 2, 1909.
- ¹⁴ Thirteenth Census, 1910 Agricultural Statistics for Nevada, 80-84.
- ¹⁵ Review, October 12, 1910, Age, May 4, 1912, Roske, Desert Paradise, 170. In 1948 Clark phased out the grain, feed, and hay operations.
- ¹⁶ Review, October 2, 1909, March 12, 1910.
- ¹⁷ Ibid, March 5, 12, 1910, August 13, 1910, Thirteenth Census, 1910 Agriculture Statistics for Nevada, 82, Jones, "Golden Anniversary Edition," "Entertainment Section," pg. 5.
- ¹⁸ Review, August 8, 1913, Age, "Prosperity Edition," April 6, 1912, Thirteenth Census, 1910 Agriculture Statistics for Nevada, 84.
- ¹⁹ Ibid, 80.
- ²⁰ Review, March 12, 1910.
- ²¹ Review, November 27, 1909, January 22, 1910.
- ²² Review, March 12, 1910, 1920 Census, Age January 3, 1920.
- ²³ 1910 Manuscript Census, Age, "Prosperity Edition," April 6, 1912, August 13, 1916.
- ²⁴ 1910 Manuscript Census, Review, April 30, 1910, Age, "Prosperity Edition," April 6, 1912.
- ²⁵ Russell Elliott, Nevada's Twentieth-Century Mining Boom, (Reno, 1966), 13.....Review, October 16, November 27, 1909, March 12, 1910, August 13, 1910.
- ²⁶ 1910 Manuscript Census, Age, "Prosperity Edition," April 6, 1912, Review, January 3, 1914.
- ²⁷ Steinman, Beechwood Flats, 139, 141. Robert G. Athearn, High Country Empire: The High Plains and Rockies, (New York, 1960), 144.
- ²⁸ Robert Athearn, High Country Empire: The High Plains and Rockies, (New York, 1960), 142, Age, January 3, February 8, 1919, Steinman, Beechwood Flats, 140.
- ²⁹ Steinman, Beechwood Flats, 137-139, 146-147, 149, 152-154.

^{30*} 1910 Manuscript Census, Age, "Prosperity Edition," April 6, 1912, Roske, Desert Paradise, 134.

^{31*} Age, "Prosperity Edition," April 6, 1912, Review, September 25, 1909.

^{32*} Age, December 9, 1916, Review, June 24, 1911.

^{33*} Review, June 3, 1911.

^{34*} Age, November 23, 1912.

^{35*} Age, July 6, 1912, August 6, 1916.

^{36*} 1910 Manuscript Census, Age, "Prosperity Edition," April 6, 1912, Review, January 3, 1914, Age, May 8, 1915, March 2, 1916. J.W. Matzdorf, Frank's son, died in March 1916 after contacting an infectious disease called erysipelas.

^{37*} Boyer, My Home for Sixty Years, passim, .Paher, As it began, 74.

^{38*} Age, September 21, 1907, February 14, 1914.

^{39*} 1910 Census, Age, September 4, 1912.

^{40*} 1910 Census, Review, March 28, 1914, Age, July 8, 1911.

^{41*} Age, August 13, 1916, 1920 Census, .George Hardman, Memoirs of Pioneer Work with the University of Nevada Agricultural Experiment Stations at Reno and Las Vegas, and the U.S. Soil Conservation Service, (University of Nevada Oral History Project, 1969), 19-20.

^{42*} Review, March 28, 1914, Age, March 4, 18, 1916, Review, April 8, 1911, Age, May 9, January 31, 1914, Review, November 23, 1912.

^{43*} Roske, Desert Paradise, 46, Paher, As it began, 76. Trust Deed Number T-357 shows the property as being sold to the Utah, Nevada, and California Railroad Company on July 16, 1901. The property was described in the deed as a tract of land "one mile north of the Las Vegas Ranch with 160 acres for the construction of the Las Vegas and Tonopah Railroad. The land was sold by Kiel's heirs which included his estranged wife Mary, Joseph Kiel, Mary Hildreth and her husband Benjamin Hildreth, Van Buren Kiel, and Frank (Conrad's son) Kiel and his wife Elizabeth. See Age, August 19, 1905.

^{44*} Roske, Desert Paradise, 177, 1910 Manuscript Census, Thirteenth Census, 1910 Agriculture Statistics for Nevada.

^{45*} Las Vegas Times, April 1905, Age, July 14, 1906, September 15, 1906.

^{46*} 1910 Manuscript Census, Age, "Prosperity Edition," April 6, 1912, 1920 Manuscript Census.

^{47*} Review, February 5, 19, 1910. Billington, Westward Expansion, 694. 1910 and 1920 Manuscript Census, Age, January 29, 1921.

^{48*} 1910 Manuscript Census. Townley, "Helen J. Stewart," v. 2, 17.

^{49*} Age, August 23, 1913, November 16, 1912.

^{50*} Age, July 26, 1913, November 16, 1912.

^{51*} Age, July 29, September 16, 1916.

^{52*} Elbert Edwards, Memoirs of a Southern Nevada Educator, Scion of an Early Mormon Family, (University of Nevada Oral History Project, 1978), 157, Age, November 22, 1924, 1910 Manuscript Census, Roske, Desert Paradise, 93.

^{53*} Roske, Desert Paradise, 93, Eugene P. Moehring, Resort City in the Sunbelt: Las Vegas, 1930-1970, (Reno, 1989), 30. In the 1950s the property was referred to as the Losce Ranch due to its location at the intersection of Carey Avenue and Losce Road in North Las Vegas. Elmer Losce owned the ice plant. In 1994 the historic Kiel Ranch comprised two buildings weathered by the elements. Plans are underway by the Vista Group, Vega Enterprises, and American Enterprises in accord with the city of North Las Vegas to develop an industrial complex as the Kiel Ranch Business Park to attract commercial projects and business enterprises. See the Las Vegas Review-Journal, May 8, 1994, 4L.

^{54*} 1920 Manuscript Census. For a detailed account on the life of Helen J. Stewart see Townley's "Helen J. Stewart: First Lady of Las Vegas," Parts one and two, Nevada Historical Society Quarterly, 16 (Winter 1973), 3-32 and (Spring 1974), 214-244

^{53*} Age, August 10, October 19, 1912, June 28, 1913.

^{54*} Alan Balboni, "From Laborer to Entrepreneur: The Italian-American in Southern Nevada, 1905-1947," Nevada Historical Society Quarterly, (Spring 1991), vol. 34, 260-261. Charles Aplin Papers, (University of Nevada Oral History Project), passim, 1920 Manuscript Census.

^{55*} 1910 Manuscript Census. Rockwell, Recollections of Life, 34. Balboni, "From Laborer to Entrepreneur," 258, Review, August 22, 1914, 1920 Manuscript Census.

⁵⁶..Balboni, "From Laborer to Entrepreneur," 261, 270-footnote 24. According to Alan Balboni, despite the fact that many Las Vegas considered David Lorenzi to be of Italian descent, his daughter, Mrs. Louise Fountain, informed him that her father did not, as he was born in France near the Italian border. Although Lorenzi was a native of France, his surname marked him as being of Italian descent, and he is included among those Italian-Americans who contributed to the economic development of Las Vegas. Nash, 37-38. White, 190-91, 425. Las Vegas Chamber of Commerce pamphlet, 1913, p. 15 and 1914, 1917, etc.

⁵⁷. Louise Fountain, "The Legend of Lorenzi Park," Stanley Paher, ed., Nevada Official Bicentennial Book, (Las Vegas, 1976), 285-86, Paher, As it began, 138, Age, May 9, 1914, David Millman, "Lorenzi Park--a Social Center of Las Vegas," Notes and Documents, Nevada Historical Society Quarterly, (Fall 1983), vol. 26., 189.

⁵⁸. Andrew Russell, "A Fortunate Few: Japanese Americans in Southern Nevada, 1905-1945," Nevada Historical Society Quarterly, (Spring 1988), vol. 31, 32-52, 1920 Manuscript Census. White, "Its Your Misfortune," 444-445, Patricia Nelson Limerick, The Legacy of Conquest: The Unbroken Past of The American West, (New York, 1987), 269-272.

⁵⁹. Review, May 23, 1914.

⁶⁰. Russell, "A Fortunate Few," 39-40, Roske, Desert Paradise, 134, Boyer, My Home for Sixty Years, passim 1-189, Las Vegas Evening Review-Journal, June 28, 1930, July 23, 1931.

⁶¹. Roske, Desert Paradise, 134. Russell, "A Fortunate Few," 39-40, fn 62, fn 49, Boyer, My Home for Sixty Years, passim 1-189. In addition to an overabundance of water, the Age reported to Las Vegas residents in 1913 that an unprecedented January cold spell had frozen the Colorado River completely across at a point near the Riverside Ranch at Searchlight. The Indians viewed the unusual phenomenon with terror who saw the "curious antics of ice floes as they lodged against frozen sand bars, giving off strange wreaths of vapor which appeared to be smoke." Age, March 15, 1913.

⁶² Age, January 31, February 21, March 21, 1914, Review, July 11, 1914. The California Japanese who purchased Winterwood land included "Bill" Tomiyasu and Fred Haganuma of San Bernardino, Nizo Yamato, Jim Akita, S. Makita, and Y. Nakamura of Redlands; and I. Ineuyi of Needles. See Review, July 11, 1914. In June 1922, the Review reported that W. P. Holt, known as the "Wizard of Imperial Valley," was negotiating with L. Lindsay, Director of the Pacific Southwest Trust and Saving Bank of Los Angeles, for the purchase or joint operation of the now sub-divided 5,000-acre Winterwood property. See Review, June 2, 1922, Age, January 12, 1924.

⁶³. Age, April 4, 1906, April 5, 1913.

⁶⁴. Review, December 4, 1909, Jones, "Golden Anniversary Edition," 6, Age, March 2, 1912.

^{65*} Age, February 26, 1916, W. Eugene Hollon, The Great American Desert Then and Now, (New York, 1966), 157, Age, October 12, 1912.

^{66*} Review, October 9, 1909.

^{67*} Review, November 7, 1909.

^{68*} Review, March 5, 1910.

^{69*} Ibid, Review, August 13, 1910.

^{70*} Review, March 25, 1911, March 14, 1910, Age, August 16, 1913, February 14, 1914.

^{71*} Age, January 31, 1914, October 12, 1912, Review, January 3, 1914.

^{72*} 1910 Manuscript Census, Boyer, My Home for Sixty Years, passim 1-189, Review, August 20, 1910, Age, June 8, 1912.

^{73*} Thirteenth Census, 1910 Agricultural Statistics for Nevada, 80.

^{74*} White, "It's Your Misfortune," 225.

^{75*} Review, October 2, November 27, December 11, 1909, April 9, 1910, Age, March 11, 1916.

Chapter 5: Progressive Era Farming, 1905-1929

^{1*} Age, September 16, 1916.

^{2*} The 1887 Hatch Act provided for the establishment of agricultural experiment stations in each state under the guidance of land-grant colleges.

^{3*} Due to various reasons, however, including lack of political experience, weak leadership, Populist programs being appropriated by Republicans or Democrats, as well as a chronic shortage of funds, the party failed to win support for their cause. With the collapse of populism and the farmers' movement, the government directed its efforts toward city reform instead. See Richard Hofstadter, The Age of Reform, (New York, 1955), 118, 94, George Brown Tindall, America: A Narrative History, vol. 2., (New York, 1988), 885-886, 896-897.

^{4*} Elliott, History of Nevada, 371-372. Cecil W. Creel, A History of Nevada Agriculture, (Reno, 1964), 15-16, Appendix to Journals of the Senate and Assembly, Report of the Nevada Experiment Station, Volume 2, 1907, 15, Age, June 21, 1913, May 2, 1914. The bulletins offered articles on such topics as "Irrigation Pumping in Nevada," "Irrigation and Some of Its Problems in Nevada," "The Carey Act," "Nevada Potatoes," "Frost Prevention in Fruit Orchards," "Home Butter Making," "The Coddling Moth," "European Elm Scale," and other pertinent subjects "Irrigation Pumping in Nevada," "Irrigation and Some of Its Problems in Nevada," "The Carey Act," "Nevada Potatoes," "Frost Prevention in Fruit Orchards," "Home Butter Making," "The Coddling Moth," "European Elm Scale," and other pertinent subjects.

^{5*} Appendix to the Journals of the Senate and Assembly, Report of the Nevada Experiment Station., 15, Age, "Prosperity Edition," April 6, 1912, August 19, 1905.

^{7*} Age, "Prosperity Edition," April 6, 1912, May 18, 1912, September 16, 1916.

^{8*} Age, March 15, 1913.

^{9*} Ibid, September 21, 1907, July 31, 1909. Ladd Haystead and Gilbert C. Fite, The Agricultural Regions of the United States, (Norman, 1955), 268.

^{10*} Age, June 23, 1917, November 16, 1912, February 24, 1923, 1, 1913 chamber of commerce pamphlet.

^{11*} Thomas R. Wessel, "Farming on the Northern Plains Reservation," Clyde A. Milner, II, ed., Major Problems in the History of the American West, (Lexington, 1989), 423, Review, June 25, 1910, May 9, 1914, Cecil W. Creel, A History of Nevada Agriculture, (Reno, 1964), 17.

^{12*} George Hardman, Memoirs of Pioneer Work with the University of Nevada Agricultural Experiment Stations at Reno and Las Vegas, and the United States Soil Conservation Service, (University of Nevada Oral History Project, 1968), 18-23, Age, April 22, 1922, 1., Review-Journal, May 31, 1, June 7, 1., June 26, 1930, 1., January 31, 1934, 1.

^{13*} Creel, History of Nevada Agriculture, 17, Age, March 25, April 15, September 2, 16, 1916.

^{14*} Age, September 16, 1916, Las Vegas Evening-Review Journal, March 26, 1930, 1., Review, January 3, 1914, 1920 Manuscript Census, Anne Bail Howard, The Long Campaign: A Biography of Anne Martin, (Reno, 1985), 81.

^{15*} Howard, The Long Campaign, 101, Age, September 14, 1912.

^{16*} Review, December 26, 1914.

- ^{17*} Creel, History of Nevada Agriculture, 16-17.
- ^{18*} Age, January 3, 1920, 1.
- ^{19*} Age, February 14, 1919, Jones, "Golden Anniversary Edition," 10:1, Age, October 21, 1922, 1.
- ^{20*} Review, June 27, 1914.
- ^{21*} Cecil Creel, A History of Nevada Agriculture, 17. See appropriate sections of Louie Gardella, Just Passing Through: My Work in Nevada Agriculture, Agricultural Extension, and Western Water Resources, (University of Nevada Oral History Project, 1975).
- ^{22*} In 1917, after an outbreak of a virulently infectious bee disease known as European Foul Brood or American Foul Brood was discovered in another state, Governor Emmett Boyle placed Nevada under a bee quarantine. Clark County reported in 1910 that 199 bee colonies valued at \$951 had produced 12,110 pounds of honey. In 1914, J. I. Earl of Bunkerville reported that the average honey yield per colony in Nevada was fifty pounds but, with proper care, he was able to get eighty— the highest of any state in the Union. By 1920, Clark County had 743 hives producing 20,610 pounds of honey, with a value of \$8,121 Age, April 28, 1917. Review, January 15, 1915. Thirteenth Census, 1910 and 1920 Agricultural Statistics for Nevada.
- ^{23*} Robert Laxalt, Nevada: A History, (University of Nevada Press, 1977), 22, Review, April 9, 1910, Limerick, The Legacy of Conquest, 312, Age, September 16, 1916.
- ^{24*} 1920 Manuscript Census, Age, August 4, 1923, 1.
- ^{25*} Review, November 12, 1910. One Nevada rancher conducted experiments on his land with samples of Bermuda grass sent from Florida which proved inconclusive. However, Bermuda grass did not alleviate ranchers' concerns or the continuing depletion of their cattle range.
- ^{26*} Creel, History of Nevada Agriculture, 17. The Taylor Grazing Act of 1934 reflected the government's continuing efforts to conserve range land forage resources through restricted grazing on public lands. This was of immense importance to Nevada's cattle and sheep ranchers as it would insure the conservation and protection of grazing and forage lands. Louis Gardella worked as an agricultural agent for the Taylor Grazing Service (now the Bureau of Land Management) in Clark County. . See Louis A. Gardella, Just Passing Through, appropriate sections. Also see Elliott, History of Nevada, 290.
- ^{27*} Hofstadter, Age of Reform, 113-14, 124-25. Agrarian reformer Seaman Knapp, an agriculturalist from Iowa who moved to New York and later, to Louisiana, popularized demonstration education among farmers at the local level. Also see Tindall, America, 742.

- ^{28*} The West, A Collection From Harper's Magazine, (New York, 1990), 102-03, Review, January 21, 28, 1911.
- ^{29*} Age, February 15, 1913.
- ^{30*} Age, April 15, 1916.
- ^{31*} Review, November 28, 1914.
- ^{32*} Hofstadter, Age of Reform, 125, Tindall, America, 976-77, Review, May 30, 1914.
- ^{33*} Age, February 14, May 9, 1914. Review, October 9, 16, 30, 1909, Age, July 19, 1919, December 4, 1920, 1, January 29, 1921, 1, February 5, 1921.
- ^{34*} Review, June 10, 1911, March 21, 1914, Age, June 21, 1913, March 21, 1914, March 28, 1914, Leon Rockwell, Recollections of Life, 83.
- ^{35*} Truck farmers raised vegetables exclusively for the market.
- ^{36*} Age, March 10, 17, April 14, 1917.
- ^{37*} Tindall, America, 1001, Age, April 14, 1917.
- ^{38*} Ibid.
- ^{39*} Creel, History of Nevada Agriculture, 18-19, Age, February 2, 1918. Gardella, Just Passing Through, 4, 1920 Manuscript Census.
- ^{40*} Tindall, America, 640, Age, September 16, 1916, February 24, 1917.
- ^{41*} Athearn, Mythic West, 37, 39, Review-Journal, June 3, 1930, 1, Creel, History of Nevada Agriculture, 19-20.
- ^{42*} Age, October 13, 1917.
- ^{43*} Creel, History of Nevada Agriculture, 18-19, Age, June 16, 1917, December 2, 1916.

⁴⁴ Age, May 5, 1917. War preparedness in Las Vegas did not just extend to agriculture. In May 1917, the Las Vegas Rifle Club selected the Park Ranch as the site of its new shooting range where it was possible to practice up to 1000 yards without danger. The rifle club had recently affiliated with the National Rifle Association who had “for years been preaching the gospel of marksmanship as an aid to national preparedness.” Rifle practice was to be held under standard military conditions using army rifles, ammunition, and equipment. See Age, May 19, 1917.

Chapter 6: The Business of Farming, 1920-1929

¹ Fourteenth Census, 1920 Agricultural Statistics for Nevada, 274-280. Joseph E. Stevens, Hoover Dam, (Norman, 1988), 12.

² 1920 Manuscript Census, Age, January 31, 1914, Review, July 18, 1914.

³ Age, January 12, 1924.

⁴ 1920 Manuscript Census, Age, May 9, 1914, April 15, 1916, May 29, 1920, 1, Las Vegas Evening Review-Journal, May 6, 1930, 1, August 13, 1930, 1, September 1, 1931, 1, June 8, 1932, 1, June 30, 1934, 1, September 21, 1934, 1., John Harrington, “Ghost Orchard,” Nevada Official Bicentennial Book, (Nevada, 1964), 281-82, Daniel J. Boorstin, The Americans, The Democratic Experience, (New York, 1974), 326.

⁵ Age, April 22, 1922, 1.

⁶ Bradford Luckingham, Phoenix: The History of a Southwestern Metropolis, (Tucson: 1984), 74, 76. Age, July 19, 1919.

⁷ Age, July 26, 1919, February 7, 1920.

⁸ Age, January 24, March 27, April 24, May 29, June 12, July 17, 31, 1920, February 21, 1921.

⁹ Age, July 26, 1924.

¹⁰ Creel, History of Nevada Agriculture, 20, 1920 Manuscript Census, Gardella, Just Passing Through, 358.

¹¹ Age, August 12, 1922, Fourteenth Census, 1920 Agricultural Statistics for Nevada, 274-280, Manuscript Census 1920, Age, May 2, 1914, March 15, 1913, Boorstin, The Americans: The Democratic Experience, 134.

¹² George L. Ullom, (University of Nevada Oral History Project, 1988), transcribed by Jamie Coughtry, draft copy, chapter one, 1-9--1-17.

- ^{13.} 1920 Manuscript Census, Fourteenth Census, 1920 Agricultural Statistics for Nevada, 274-280.
- ^{14.} Age, November 21, 1921, December 3, 10, 12, 17, 1921. Review, January 24, 1914.
- ^{15.} Age, August 12, September 16, 1922.
- ^{16.} Age, January 3, 1920.
- ^{17.} United States Bureau of Soils. Soil Survey of the Las Vegas Area, Nevada, Field Operations of the Bureau of Soils, 1923, 219-244, Age, December 3, 1921, November 2, 1922, January 6, 1923.
- ^{18.} Age, June 24, 1922, August 12, 1922.
- ^{19.} Age, October 18, 1924.
- ^{20.} Age, August 30, 1924.
- ^{21.} Age, June 16, 1916, January 14, 1930, 21.
- ^{22.} Creel, History of Nevada Agriculture, 19, Review-Journal, June 25, 1931, 1.
- ^{23.} Age, February 18, 1922, December 24, 1921.
- ^{24.} Age, October 21, 1922, 1.
- ^{25.} Review-Journal, June 28, 1930, 1, 5.
- ^{26.} Age, January 12, 1924, 1, Sandra Tiffany, (Assemblywoman, District 21), "Water is for fightin' over," summary of water use laws, Latitude Newspapers, October 1994, 4. Hardman, Memoirs, 24.

BIBLIOGRAPHY

Books

- Athearn, Robert G. Westward The Briton. Lincoln: University of Nebraska Press, 1953.
- _____. High Country Empire: The High Plains and the Rockies. New York: McGraw-Hill Book Company, Inc., 1960.
- _____. The Mythic West In Twentieth-Century America. Lawrence: University Press of Kansas, 1986.
- Brauer, Anne. "A Resting Place," Stanley W. Paher, ed., Nevada Official Bicentennial Book. Las Vegas: Nevada Publishers, 1976.
- Billington, Ray Allen and Martin Ridge. Westward Expansion, A History of the American Frontier. New York: MacMillan Publishing Company, Inc., 1982.
- Boorstin, Daniel J. The Americans: The Democratic Experience. New York: Vintage Books, 1974.
- Creel, Cecil W. A History of Nevada Agriculture. Reno: Max C Fleishmann College of Agriculture, 1964.
- Dillon, Richard. Western Quotations. Tempe: Four Peaks Press, 1993.
- Elliott, Russell R. History of Nevada. Lincoln: University of Nebraska Press, 1973.
- _____. Nevada's Twentieth-Century Mining Boom,: Tonopah, Goldfield, Ely. Reno: University of Nevada Press, 1988.
- Fite, Gilbert C. The Farmers' Frontier, 1865-1900. New York: Holt, Rinehart, and Winston, 1966.
- Fountain, Louise, "The Legend of Lorenzi Park," Stanley W. Paher, ed., Nevada Official Bicentennial Book. Las Vegas: Nevada Publishers, 1976.
- Goetzmann, William H. Exploration And Empire. New York: History Book Club, 1966.
- Gower, Harry P. "It Don't Hurt Him None," Death Valley Tales. Bishop: Chalfant Press, Inc., 1955.
- Haenszel, Arda M. Searchlight Remembered. Norco: Tales of the Mojave Road Publishing Company, 1988.

- Hafner, Arabell Lee. 100 Years On The Muddy. Springville: Art City Publishing Co., 1967.
- Harrington, John, "Ghost Orchard," Stanley W. Paher, ed., Nevada Official Bicentennial Book. Las Vegas: Nevada Publishers, 1976.
- Haystead, Ladd and Gilbert C. Fite. The Agricultural Regions of the United States. Norman: University of Oklahoma Press, 1955.
- Highton, Jake. Nevada Newspaper Days: A History of Journalism in the Silver State. Stockton: Heritage West Books, 1990.
- Hofstadter, Richard. The Age of Reform. New York: Vintage Books, 1955.
- Hollon, W. Eugene. The Great American Desert. New York: Oxford University Press, 1966.
- Howard, Anne Bail. The Long Campaign. Reno: University of Nevada Press, 1985.
- Hulse, James W. The Silver State. Reno: University of Nevada Press, 1991.
- _____. "Reformers and Visionaries." Wilbur S. Shepperson, ed. East of Eden, West of Zion. Reno: University of Nevada Press, 1989.
- Lavender, David. The Great West. Boston: Houghton Mifflin Company, 1965.
- Laxalt, Robert. Nevada, A History. Reno: University of Nevada Press, 1977.
- Lillard, Richard G. Desert Challenge: An Interpretation of Nevada. Lincoln: University of Nebraska Press, 1983.
- Limerick, Patricia Nelson. The Legacy of Conquest. New York: W.W. Norton and Company, 1987.
- Luckingham, Brad. Phoenix: The History of a Southwestern Metropolis. Tucson: The University of Arizona Press, 1984.
- Lynch, Denny. Story of Pahrump Valley, Nye County, Nevada. Pahrump: published by author, 1979.
- Malone, Michael P. and Richard W. Etulain. The American West, A Twentieth-Century History. Lincoln: University of Nebraska Press, 1989.
- Malone, Michael P., ed. Historians and the American West. Lincoln: University of Nebraska Press, 1983.
- McCracken, Robert D. A History of Amargosa Valley, Nevada. Tonopah: Nye County Press, 1990.
- _____. A History of Pahrump, Nevada. Tonopah: Nye County Press, 1990.

- Mochring, Eugene P. Resort City in the Sunbelt, Las Vegas, 1930-1970. Reno: University of Nevada Press, 1989.
- Moreno, Richard. The Backyard Traveler Returns. Carson City: 1992.
- Moynihan, Ruth, Susan Armitage, and Christiane Fischer Dichamp, eds. So Much to Be Done. Lincoln: University of Nebraska Press, 1990.
- Murbarger, Nell. Ghosts of the Glory Trail. Las Vegas, Nevada Publications, 1956.
- Nash, Gerald D. The American West in the Twentieth Century. Albuquerque: University of New Mexico Press, 1973.
- Nordhoff, Charles. Nordhoff's West Coast: California, Oregon, and Hawaii. New York: KPI Limited, 1987.
- Paher, Stanley W. Las Vegas, As it began--as it grew. Las Vegas: Nevada Publications, 1971.
- . "Agriculture," Stanley W. Paher, ed., Nevada Official Bicentennial Book. Las Vegas: Nevada Publishers, 1976.
- Petrik, Paula. No Step Backward: Women and Family on the Rocky Mountain Frontier. Helena: Montana, 1986.
- Pomeroy, Earl. In Search of the Golden West. Lincoln: University of Nebraska Press, 1957.
- Raymond, C. Elizabeth, "Sense of Place in the Great Basin," Wilbur S. Shepperson, ed., East of Eden, West of Zion: Essays on Nevada. Reno: University of Nevada Press, 1989.
- Robinson, Michael C. Water For the West, The Bureau of Reclamation, 1902-1977. Chicago: Public Works Historical Society, 1979.
- Roske, Ralph. Las Vegas: A Desert Paradise. Tulsa: Continental Heritage Press, 1986.
- Smith, Henry Nash. Virgin Land, The American West As Symbol and Myth. Cambridge: Harvard University Press, 1950.
- Smith, Sherry L. The View From Officers' Row. Tucson: The University of Arizona Press, 1990.
- Steinman, Philip III. Beechwood Flats. New York: Vantage Press, 1960.
- Stevens, Joseph E. Hoover Dam, An American Adventure. Norman: University of Oklahoma Press, 1988.
- The West, A Collection From Harper's Magazine. New York: Gallery Books, an imprint of W.H. Smith Publishers, Inc., 1990.

- Tindall, George Brown. America, A Narrative History. New York: W.W. Norton and Company, 1988.
- Van Kirk, Sylvia, "The Role of Native Women in the Creation of Fur Trade Society in Western Canada, 1670-1830," Susan Armitage and Elizabeth Jameson, eds., The Women's West. Norman: University of Oklahoma Press, 1987.
- Weight, Harold O. Twenty Mule Team Days In Death Valley. San Francisco: Calico Press Classic, 1883; reprint, San Francisco: Frederic F. Hollister, Books of Adventure, 1955.
- Wessel, Thomas, "Farming on the Northern Plains Reservation," Clyde A. Milner, II, ed., Major Problems in the History of the American West. Lexington: D.C. Heath and Company, 1989.
- White, Richard. "It's Your Misfortune and None of My Own," A New History of the American West. Norman: University of Oklahoma Press, 1991.
- Worster, Donald. Under Western Skies, Nature and History in the American West. New York: Oxford University Press, 1992.

Articles

- Balboni, Alan. "From Laborer to Entrepreneur: The Italian-American in Southern Nevada, 1905-1947." Nevada Historical Society Quarterly (1991): 257-272.
- Bowen, Marshall. "The Desert Homestead as a Non-Farm Residence." Nevada Historical Society Quarterly (1988): 198-211.
- Corbett, Pearson Starr. "Settling the Muddy Valley." Nevada Historical Society Quarterly (1975): 141-151.
- Dumke, Glen S. "Mission Station to Mining Town: Early Las Vegas." Pacific Historical Review, XXII (1953), 257-270.
- Johnson, Susan L. "Sharing Bed and Board: Cohabitation and Cultural Difference in Central Arizona Mining Towns." Frontiers: A Journal of Women's Studies (1984): 36-41.
- Jones, Florence Lee. "Las Vegas, Golden Anniversary Edition," a collection of articles in a special edition of the Las Vegas Review-Journal (February 28, 1955).
- Millman, David. "Lorenzi Park--A Social Center of Las Vegas." Nevada Historical Society Quarterly (1983): Notes and Documents, 189.
- Moehring, Eugene P. "Profile of a Nevada Railroad Town: Las Vegas in 1910." Nevada Historical Society Quarterly (1991): 466-487
- Riggs, John L. "The Reign of Violence in Eldorado Canyon." Nevada Historical Society

Third Annual Report (1911-1912): 1.

Rusco, Elmer R. "Purchasing Lands For Nevada Indian Colonies, 1916-1917." Nevada Historical Society Quarterly (1989): 1.

Russell, Andrew. "A Fortunate Few: Japanese Americans in Southern Nevada, 1905-1945." Nevada Historical Society Quarterly (1988): 32-52.

Stano, Mary. "Dan's Ferry." The Nevadan Today, February 26, 1989: 8cc.

Sutton, Imre. "Geographical Aspects of Construction and Planning: Hoover Dam Revisited." Journal of the West, VII (1968): 310.

Townley, Carrie Miller. "Helen J. Stewart: First Lady of Las Vegas," Nevada Historical Society Quarterly, part one (1973): 215-243, part two (1974): 3-244.

Newspapers

Clark County Review

Las Vegas Age

Las Vegas Review-Journal

Las Vegas Times

Searchlight Bulletin

Southern Nevada Times (Reproduction clips)

Government Documents and Reports

Agricultural Nevada, issued by Sunset Magazine's Homeseekers' Bureau, San Francisco: 1911.

Appendix to the Journal of the Senate and Assembly, Report of the Nevada Experiment Station, vol. II, (1907): 15.

Clark County Manuscript Census for 1880, 1910, 1920.

Las Vegas Chamber of Commerce. Where Farming Pays; The Artesian Belt of Semi-Tropic Nevada. Las Vegas: 1913

_____. Semi-Tropical Nevada; A Region of Fertile Soils and Flowing Wells. Las Vegas: 1914.

U.S. Bureau of Soils, Soil Survey of Las Vegas Area, Nevada, 1923. Field Operations of the Bureau of Soils.

U.S Department of Commerce, Bureau of the Census, .Compendium of the Ninth Census, 1870; Compendium of the Tenth Census, 1880.

U.S. Department of Commerce, Bureau of the Census, Thirteenth Census--Nevada Agriculture, 1910; Fourteenth Census-- Nevada Agriculture, 1920. 169

Unpublished Materials

Kaufman, Perry. "The Best City of Them All: A History of Las Vegas, 1930-1960." Doctoral dissertation: University of California, Santa Barbara, 1974.

Weber, Sherryl L. "Effects of the Reservation System and White Civilization on the Southern Nevada Paiutes, 1870-1919." Paper.

Oral History

Aplin, Charles W. An Oldtimer in Las Vegas. University of Nevada Oral History Project, 1969.

Boyer, Florence. Las Vegas, Nevada: My Home for Sixty Years. University of Nevada Oral History Project, 1967.

Edwards, Elbert. Memoirs of a Southern Nevada Educator. University of Nevada Oral History Project, 1968.

Gardella, Louis. Just Passing Through: My Work in Nevada Agriculture, Agricultural Extension, and Western Water Resources. University of Nevada Oral History Project, 1975.

Hardman, George. Memoirs of Pioneer Work With the University of Nevada Agricultural Experiment Stations at Reno and Las Vegas, and the United States Soil Conservation Service. University of Nevada Oral History Project, 1968.

Rockwell, Leon. Recollections of Las Vegas, Nevada, 1906-1968. University of Nevada Oral History Project, 1969.

Ullom, George. University of Nevada Oral History Project, 1988.