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## **Nevada's Beginning Farmer and Rancher Program: 13 Years of Evolution**

### **Abstract**

Nevada has a dynamic and evolving group of beginning farmers and ranchers that have been assisted by the University of Nevada, Reno Extension service with support from the United States Department of Agriculture, National Institute of Food and Agriculture, Beginning Farmer and Rancher Development Program. This article discusses the evolution of the program over a thirteen period from 2011 to 2024. By developing relationships with these beginning farmers and ranchers, we were able to assess their highest priority needs. As a result, the program has evolved from a focus on financial education workshops to a comprehensive certification course with an emphasis on mentoring. We additionally expanded from traditional agriculture to encompass small and urban farmers and ranchers in programming and outreach efforts.

## **Introduction**

The majority of agricultural product sales in Nevada include cattle and calf production, followed by hay and other crops, milk and other dairy products, vegetables, melons, potatoes, and sweet potatoes. The number of ranches may be few in numbers, but these ranches rank third in the nation in size with an average size of 3,500 acres. Alfalfa hay is the leading cash crop with alfalfa seed also being a substantial crop. The additional crops in Nevada include potatoes, barley, winter and spring wheat, corn, oats, onions, garlic and honey (NDA, 2024). There is also a large vegetable producer with thousands of acres in Lyon County, Nevada.

Nevada has seen an increase in the number of individuals beginning specialty crop operations (USDA-NASS, 2024). Local participants that wanted to get involved in their local food system began emerging in the early 2000's. There was an identified need to assist producers that were on small acreages in Nevada. This population wanted to grow vegetables, local meat, and value-added products. Farmer Markets began to emerge across Nevada. The United States Department of Agriculture (USDA) also began to put significant resources toward this emerging population (USDA, 2024). The University of Nevada, Reno Extension applied for its first Beginning Farming and Ranching Development program by 2008 and was successful in a grant award by 2011.

## **Methods**

### 2011-2014

The University of Nevada, Reno began participating in the USDA, National Institute of Food and Agriculture (NIFA) Beginning Farmer and Rancher (BFR) Development program with a grant award in 2011. The 2011 program was designed to provide financial education through one-to-two-day workshops and provide one-on-one mentoring through the development of enterprise budgets to a potential 300 BFRs (Bishop et al., 2013).

## 2015-2018

The project's funding was renewed in 2015, and the team began working with 600 BFRs through workshops, mentorship and enterprise budget development. The program went through a couple of years with minimal funding and maintained workshops through the year, but mentoring was suspended toward the end of the grant cycle.

## 2020-2023

The Nevada Beginning Farmer and Rancher Development program's funding was again renewed in 2020, only to have COVID hit shortly after. Project staff had to adapt in a 24-hour period to move toward online interaction, and convert to an online program for certification; thus, the evolution of Zoom programming.

The USDA became focused on urban agriculture to assist urban, small-scale and innovative producers with production, processing and selling. These urban producers include community farms and gardens, rooftop and indoor production, vertical and hydroponic farming, and aquaponics facilities. Nevada has a large urban agriculture center in Clark County, which is home to the Las Vegas area.

In response to this, University of Nevada, Reno Extension made a commitment to locate these urban agriculture producers within this area. In 2023, Extension planned and facilitated both an Urban Agriculture Conference and a Small Agriculture Conference, one in the northern part of the state, and one in the southern part of the state.

In 2023, UNR Extension made big leaps with the BFR Program; we initiated Urban agricultural roundtables. The roundtables brought together producers, agency experts and educators to collaborate on nine different topical areas that were of importance to the participants. The roundtables serve to connect small groups to move from talking about something, to begin to act on a topic; these groups are focused on policy changes, food transportation, markets, and more.

## 2024

It is estimated that over 75% of producers participating in Extension programs are beginning farmers and ranchers. A needs assessment survey was conducted in February/March 2024 to enable Nevada BFRs to prioritize their needs for program development. The BFR participants were asked to prioritize what was especially important and what would support them in developing their agricultural business.

The 2024 Nevada BFR Certification program was tailored to respond to the results of the needs assessment. The certification program begins in February of each year and runs through April. On-campus faculty, and off-campus Extension faculty, with specialized expertise in production, business planning, marketing, and goal setting, teach the curriculum. American Ag Credit is a matching partner in Nevada and provides financial management training with faculty. It is a hybrid educational program that includes nine weekly evening two-hour classes via Zoom, and an in person 2-day producer tour. Additionally, the BFRs have to complete a simple business plan that aids them in obtaining funding for their potential business. The BFRs present their business plan to the entire Extension BFR team for feedback. Once the program is completed, the participants are certified as beginning farmers and ranchers, have access to producer-to-producer mentoring, and mentoring from the program team. Additionally, both an Urban Agriculture Conference and a Small Agriculture Conference were held in 2024, and planning for 2025 is underway.

## **Results**

### 2011-2014

By the end of the three-year project in 2014, as a result of outreach efforts to identify all producers in Nevada, Extension had a producer list of about 2,000 individuals. Six hundred of these producers qualified for the BFR program.

## 2015-2018

At the end of the second project, there were 1,025 BFRs participating in the program, a 58% growth from the previous cycle. Because mentoring was suspended due to minimal funding, participation declined toward the end of the program cycle.

## 2020-2023

The online program for certification was very successful from 2020 to 2023. Our program during COVID-19 taught us a lot about participant behavior. The program also began to see a different type of BFR producer, that we now call a subsistence producer, that wanted to grow food for themselves, their family, or their close local community. During and after COVID, the program certified 30 producers annually. The program provided mentorship, had a mailing list of about 600 producers and the addition of urban agriculture accounted for increasing BFR numbers.

The urban agricultural roundtables started with participation by 15 producers in July of 2023. Both the Urban Agriculture Conference and a Small Agriculture Conference, one in the northern part of the state, and one in the southern part of the state, were well attended and well perceived by small-and-medium sized agriculture producers. The third roundtable in 2023 was the evening of August 25, in conjunction with the Small Agriculture Conference in Las Vegas and there were over 70 people in the room. The third roundtable stirred a lot of emotion. One attendee in particular reached out to the group asking for help for his community. He and his wife are retired and his wife's passion is helping military veterans, and his passion is helping kids. They live in the Historic Westside, an African-American 3.5 square-mile neighborhood located northwest of the Las Vegas Strip. He had been utilizing his own money to put in school gardens for the kids in his neighborhood schools. He said with the increased costs of living, that he and his wife were struggling, and he needed help. Another group spoke out about their passion to form a local food cooperative grocery store. There is passion and where there is passion there is usually action to follow.

## 2024

There were 139 BFR participant survey responses to the needs assessment survey collected from Southern, Central, and Northern Nevada during annual conferences and Extension workshops. Participant responses are listed by highest priority in Table 1.

Table 1. Nevada BFRs Program Priorities

<b>BFRDP Priority</b>	<b>Average Rating (1=Not Important; 5=Important)</b>
BFR Mentoring	4.80
Vegetable Production	4.69
Fruit Production	4.66
Climate-smart Agriculture	4.45
Apiculture (Bees) – Honey Production	4.37
Value-added Products	4.29
Entrepreneurship & Business Planning	4.17
Food Safety	4.16
Marketing Strategies	4.04
Hay Production	3.96
Farm Safety and Awareness	3.89
Access to Land	3.88
Farm and Ranch Succession Planning (Acquire land from other farmers)	3.75
Livestock Production	3.38

All BFRs reported that mentoring was essential to a Nevada BFR program and was the number one program priority. The second and third highest priorities were expertise and education in vegetable and fruit production. Ranking fourth was climate-smart agriculture followed by apiculture. Table 2 lists the 2024 curriculum content.

Table 2. Nevada BFR curriculum content

<b>Course 1: Introduction</b>	An overview of small-acreage/farm to fork production, including identifying resources, understanding jurisdictions, developing a business plan and setting goals.
<b>Course 2: Plant and Soil Health</b>	Understanding plants and soil with focus on plant needs and considerations in determining the best plants for your ag production. This will include an overview of how plants grow, nutrients and day length requirements, and soil basics
<b>Course 3: Value Added Programs</b>	Learn about Value Added programs in Nevada including where and how to market your product. Selling products at farm stands, direct market, sale yards, NV Grown and social media. Participants will also learn how to develop a marketing plan.
<b>Course 4: Livestock Production</b>	Focus on livestock needs and requirements including basics of livestock and poultry nutrition, feed management, reproduction and the Quality Assurance Program
<b>Course 5: Meat Quality, Processing and Training</b>	Focus on the characteristics of meat based on nutritional management, along with an overview of the meat regulations in Nevada and the statewide meat program.
<b>Course 6: Understanding Nevada Water</b>	Focus on the basics of water rights and water law in Nevada
<b>Course 7: Financial Management</b>	Focus on financially building a farm, building business skills and assets, estate planning, and balance and cash flow basics
<b>Course 8: Partners and Funding Opportunities</b>	Overview of opportunities and resources available for producers within Nevada.
<b>Course 9: Nevada Water Rights</b>	Overview of agricultural water rights and water types of water rights can be utilized for ag production

## Discussion

In 2024, Nevada agricultural statistics reported that 33.90% of their farmers are BFRs (Beginning Farmer Ranchers), which is higher than the national percentage of 29.99%. Table 3 details the number of BFRs in Nevada by County showing that over one-third of reporting Nevada producers are BFRs. The UNR Extension agricultural project team discerns that a large percentage of Urban Agriculture BFRs are most likely not counted, as USDA has not yet identified them.

Table 3. Number of BFRs by Nevada County.

<b>Nevada County</b>	<b>Total Producers</b>	<b>Producers 10 Years or Less</b>	<b>Percent of Total Producers 10 Years or Less</b>
CARSON CITY	37	17	45.95%
CHURCHILL	943	284	30.12%
CLARK	296	130	43.92%
DOUGLAS	419	112	26.73%
ELKO	798	207	25.94%
ESMERALDA	40	13	32.50%
EUREKA	207	84	40.58%
HUMBOLDT	538	201	37.36%
LANDER	152	33	21.71%
LINCOLN	245	95	38.78%
LYON	498	151	30.32%
MINERAL	121	44	36.36%
NYE	302	106	35.10%
PERSHING	256	93	36.33%
STOREY	6	2	33.33%
WASHOE	561	266	47.42%
WHITE PINE	289	97	33.56%
NEVADA	5,708	1,935	33.90%
U.S.	3,374,049	1,011,715	29.99%

Source: *USDA. National Agriculture Statistics Service: Quick Stats, 2024.*



Support for beginning farmers and ranchers is of utmost importance for our nation's food supply. Nationally, the age of producers over 65 years-old increased by 33% from the 2017 census to the 2022 US Agricultural Census. This statistic showing the trend of an aging producer population combined with a 6.9% decrease in the number of farms highlights the need for new producers. Nevada is one of the top 10 states in the United States for beginning farmers and ranchers at 33.9%. The average age of these producers is 47 years old, which is much younger than the average producer is.

Additionally, almost three-quarters (72%) of beginning farmers reported a primary occupation other than farming. This is probably part of the reason for the success of our online certification.

The 2022 US Agricultural Census shows over 45% of the farms in Washoe and Clark County, which contain the two urban areas of Reno and Las Vegas, were operated by new and beginning producers. The USDA definition of an agricultural producer is the ability to produce and sell \$1,000 or more. Traditionally, those of us involved in agriculture in Nevada have not recognized the very small grower that has about \$1,000 in sales of an agricultural product, but these small farms are becoming a large part of our urban food supply. Several individuals who attended the Small Agriculture Conference are growing food in these neighborhoods for their communities. One farm had over 50 fruit trees and boxed gardens to support their neighborhood in food access. While program development may be challenging, the expansion of our programs to meet the needs of these urban farmers is imperative.

Another consideration is the water and/or "water right" that accompanies this growing movement in Nevada's largest city. Water is Nevada's most precious resource. How do we embrace the different kinds of agriculture in Nevada and how do we preserve the water rights to do it? Moving forward, we hope to build collaborations through water conservation and new technologies that allow small farms in urban areas to flourish. Extension has recently brought on faculty with expertise in hydroponics, low-water-use irrigation techniques and water management.

## Conclusions

Nevada has completed enterprise budgets with BFRs, implements an annual BFR tour, and supports BFRs with conference opportunities. The hybrid program development has been successful in utilizing Zoom on Wednesday nights with a program tour and grow-local dinner to complete the certification. This component of our program is working well to meet educational needs, as well as creating opportunities for networking and comradery among each cohort of students.

Nevada has incorporated mentoring into their curriculum since the inception of the program. The participant survey assessment identified mentoring as the number one priority. Mentoring can take various forms and occur in very different formats. Nevada currently has a producer-to-producer mentoring component but is finding that sometimes it is not the right fit to put an older experienced producer with a BFR producer due to liability and patience of the experienced producer for traditional rural agriculture. Nevada needs to continue to investigate the BFR-to-BFR mentorship component and how useful it can be. An unexpected benefit of the agriculture roundtables in Southern Nevada was the manifestation of peer-to-peer mentoring as relationships formed to work toward common goals. Perhaps an online model of this could serve to meet the mentoring needs of traditional BFRs in rural areas.

Nevada is the seventh largest state by area in the United States, with only 11 faculty in Extension to cover all aspects of agriculture throughout the state. The Nevada program needs to facilitate a reciprocal and collaborative approach of integrating all producers and educators together, to provide information by sharing knowledge, skills and experience. The recent formation of a statewide agricultural team to coordinate efforts, as well as the recent hires for this area, should be able to improve the efficacy of our programming.

As the UNR Extension BFR team moves forward, we plan to continue to participate with USDA in their BFR program endeavors, and constantly evolve to best serve our changing client base and support Nevada grown and raised products.

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