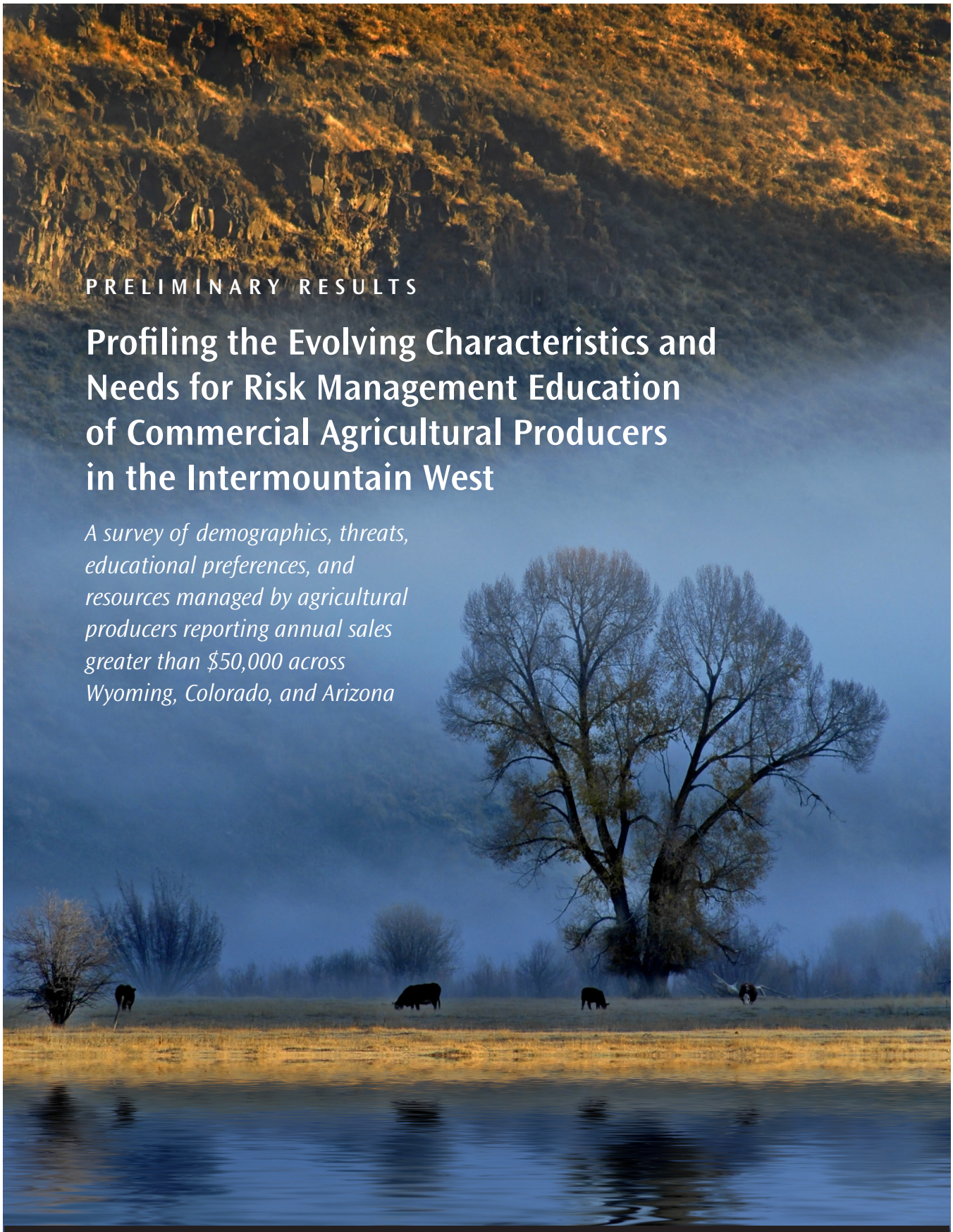

PRELIMINARY RESULTS

Profiling the Evolving Characteristics and Needs for Risk Management Education of Commercial Agricultural Producers in the Intermountain West

A survey of demographics, threats, educational preferences, and resources managed by agricultural producers reporting annual sales greater than $50,000 across Wyoming, Colorado, and Arizona

John P. Hewlett • Cole Ehmke • Tauhidur Rahman • Trent Teegerstrom • Jeffrey E. Tranel • Randolph Weigel

PRELIMINARY RESULTS

Profiling the Evolving Characteristics and Needs for Risk Management Education of Commercial Agricultural Producers in the Intermountain West

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http://RuralFamilyVentures.org

July 2010

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PROJECT SUMMARY

The rural West has experienced dramatic demographic and economic transformations during the past several decades. The makeup of farm operators has changed significantly, and enterprises are increasingly at greater production, financial, marketing, human, and institutional risks. Given the importance of university outreach education to the future of agriculture, a better understanding of farm operators, including what they perceive to be the greatest threats to their operations, is required to effectively design risk management education.

While there is anecdotal evidence of the changing traditional farm operator profile, less attention has been devoted to identifying new Cooperative Extension clientele and their educational needs. In 2009, the authors of this report worked with the United States Department of Agriculture National Agricultural Statistics Service (NASS) to conduct a statistically valid survey of farmers and ranchers in Wyoming, Colorado, and Arizona. The questionnaire was designed to discover the demographics, preferences for learning methodologies, perceived threats, and informational demands of today's agricultural producers.

Empirical analyses were conducted using survey data from 1,482 farm operators. The preliminary survey results in this report will enable Cooperative Extension to meet the educational needs of a broader audience and may be used to help develop risk management programming and materials for target specific audiences. The end result will be twofold: a more efficient use of already scarce Cooperative Extension resources and an enhanced adoption rate of risk management strategies by agricultural producers.

CHAPTER 1

Introduction

The rural West has experienced dramatic demographic and economic transformations during the past several decades. The makeup of farm operators has changed significantly, and enterprises are increasingly at greater production, financial, marketing, human, and institutional risks. Although a great deal is known about agriculture's contribution to the economy, much less is known about the changing role of farm operators and the behavioral and institutional factors that promote or impede agricultural growth in the West.

University outreach education has a role to play in the economic sustainability of Western farm operations. While anecdotal evidence suggests the profile of farm operators is changing, not much attention has been devoted to actually identifying new Cooperative Extension clientele and their educational needs. Yet, in an attempt to determine the current needs and learning preferences of the existing Cooperative Extension clientele, Extension services across the West have conducted numerous needs assessments.

In 2004 and 2006, the University of Arizona conducted two such studies: one involving county Cooperative Extension employees and cooperators and the other targeted at all University of Arizona personnel. The first study obtained information about the operators' perceived needs and the future direction county level Cooperative Extension activities should take, while the second study looked at recognition of Cooperative Extension and Extension activities outside the College of Agricultural and Life Sciences. The first study provided important insight into critical issues facing existing Cooperative Extension clientele, while the subsequent study highlighted the disconnect between actual Extension activities and the university administration's perception of Extension activities. Neither touched upon the possibility of new Cooperative Extension clientele.

In 2004, the University of Wyoming conducted a thorough needs assessment through a series of focus groups and a written survey to learn where Cooperative Extension and research efforts should be centered. This study included university personnel and statewide Cooperative Extension clientele. Also in 2004, the University of Idaho completed a comprehensive study of Idaho residents to determine the current critical issues and client preferences for receiving information and training. This study randomly sampled Idaho residents, including individuals who were not familiar with Cooperative Extension. In a more recent study, the University of Nevada College of Extension completed a comprehensive needs assessment. Researchers surveyed a total of 2,486 producers statewide with a 20 percent response rate—572 returned questionnaires. This assessment provided excellent insight into Nevada's critical agricultural issues.

Each of the above studies resulted in a list of critical issues facing the residents of each state and, to some degree, helped determine the relevance of Cooperative Extension and Extension activities. However, the studies either tended to cover a broad range of topics and audiences or dealt with the internal structure of Cooperative Extension and outreach activities.

This prompted researchers and educators from the University of Wyoming, Colorado State University, and the University of

Arizona to develop the Rural Family Ventures (RFV) Survey, a tri-state study that took a closer look at the risk management educational needs of agricultural producers across the three states.

In the spring of 2006, the RFV Team completed a survey of farm operations in the three states with reported annual sales of less than $50,000. A total of 2,645 surveys were returned for a total response rate of 53.6 percent. While the information provided by analysis of these results gave a better understanding of this growing segment of agricultural producers, the implications remained unclear. The findings were inconclusive because similar information was not available for larger operations.

To more clearly understand the risk management educational needs of larger commercial agricultural producers and to clearly identify the changing characteristics of this group, the 2009 survey reported in this bulletin was sent out by the RFV Team. The survey approach followed that used in the survey of operators reporting less than $50,000 in agricultural sales across the three states. This allowed for close comparison of the results collected from the two surveys.

The principal objectives of this report are: to better understand the changes in traditional Cooperative Extension clientele in the West, to identify the risk factors that lead to their vulnerability, and to identify effective methods for delivering outreach education. The empirical analyses were conducted in 2009 using a farm level data survey of 1,482 farm operators in the states of Wyoming, Colorado, and Arizona. The RFV Team worked in cooperation with the United States Department of Agriculture National Agricultural Statistics Service (NASS).

According to the 2007 Census of Agriculture, there are 63,760 farmers and ranchers in the states of Wyoming, Colorado, and Arizona. Farms having more than 179 acres account for almost 36 percent of all farms, and farms with sales of greater than $50,000 account for nearly 19 percent of all farms (NASS, 2007).

The survey's target population was farm operations with annual sales of greater than $50,000. To ensure a representative sample from each state, surveys were allocated based on each state's overall farm population. The total response rate was 49.4 percent with a total of 1,482 surveys completed. Data were collected on commercial operators' demographics, sources of risk, information sources and preferences, resource management, and income status. This enabled researchers to empirically examine and identify new clientele with respect to their socioeconomic status.

This report summarizes information from all those who responded to the survey, including some who did not fit the profile of a respondent with greater than $50,000 in annual agricultural sales. Preliminary findings suggest that a potential new clientele comprise larger farm operators who have never received information from Cooperative Extension (or have not for more than one year), those who are at production or financial risk, and those whose farm income accounts for more than 80 percent of household income. Survey results also identified a gap between what respondents believe they need in the way of helpful information and current educator curriculum.

The changing demographics of commercial operators are currently the subject of concern both globally and locally. Clear identification of the features of more traditional Cooperative Extension clientele and more effective methods of delivering outreach education will not only enhance the effectiveness of current programming but will help in the development of new, well-targeted programs. Policy implications derived from this report may have a significant impact on outreach educators in the Western United States and similar agricultural regions.

The Census of Agriculture is a leading source of statistics and the only source of consistent and comparable data regarding agricultural production at county, state, and national levels. Since 1982, the census has been taken on a five-year cycle. The census was conducted by the U.S. Department of Commerce until 1997 when responsibility was transferred to NASS.

CHAPTER 2

Agriculture in the West: Current Census Data

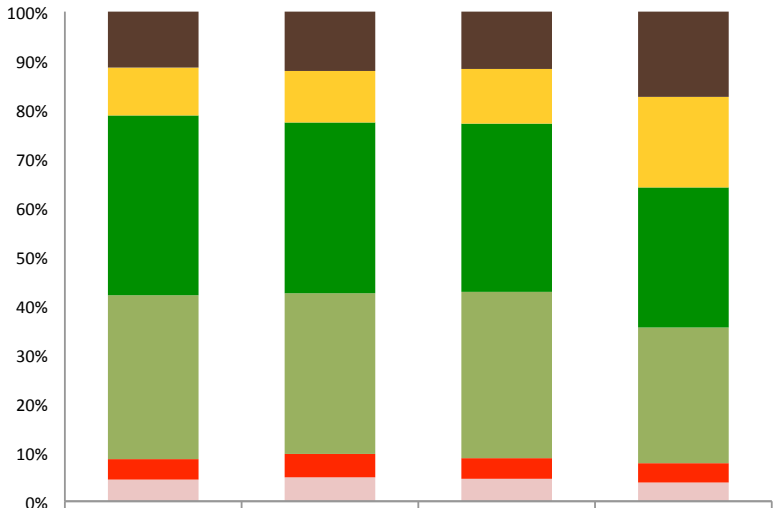
In 2007, Wyoming, Colorado, and Arizona reported a total of 63,760 farms, up from 48,085 farms in 2002.

Table 2.1. Census Data: Total Number of Farms

State	2007	2002
Arizona	15,637	7,294
Colorado	37,054	31,369
Wyoming	11,069	9,422
Total for Three States	63,760	48,085

While farm size varied significantly, 36 percent of the farms were 180 acres or more in 2007. The number of Wyoming and Colorado farms in the 180 to 499 acre, 500 to 999 acre, and 1,000 to 1,999 acre categories all increased from 2002 to 2007, but the number of Arizona farms in the same size categories decreased. The number of farms with 2,000 or more acres increased in Colorado and Arizona but decreased in Wyoming. While farm numbers increased in the three states for all other size categories (1 to 179 acres) from 2002 to 2007, average farm size by acres decreased in all three states. The number decreased most in Arizona, where the average fell 1,975 acres.

Figure 2.1. Census Data: Number of Farms by Farm Size over 180 Acres



	180-499 Acres	500-999 Acres	1,000-1,999 Acres	2,000 or More
2007 Wyoming	1,712	1,107	859	2,274
2002 Wyoming	1,465	961	819	2,416
2007 Colorado	5,501	3,185	2,521	3,736
2002 Colorado	5,015	2,998	2,492	3,620
2007 Arizona	626	436	309	515
2002 Arizona	664	447	337	501

Table 2.2. Census Data: Number of Farms by Farm Size over 180 Acres

State	2007	2002	1997	1992	1987
180 to 499 Acres					
Arizona	626	664	912	741	910
Colorado	5,501	5,015	5,065	4,594	4,862
Wyoming	1,712	1,465	1,492	1,513	1,536
500 to 999 Acres					
Arizona	436	447	703	613	678
Colorado	3,185	2,998	3,105	3,188	3,355
Wyoming	1,107	961	1,098	1,079	1,091
1,000 to 1,999 Acres					
Arizona	309	337	478	428	436
Colorado	2,521	2,492	2,699	2,740	2,918
Wyoming	859	819	973	880	954
2,000 Acres or More					
Arizona	515	501	689	847	844
Colorado	3,736	3,620	3,776	3,968	3,961
Wyoming	2,274	2,416	2,621	2,445	2,484

In 2007, there were 11,893 farms in Wyoming, Colorado, and Arizona with annual gross sales of $50,000 or more. These farms accounted for nearly 19 percent of all farms in the three states--a 14 percent increase from 2002, according to the Census of Agriculture.

Census data show the number of farms with sales of $50,000 to $99,999 decreased in Wyoming but increased in Colorado and Arizona from 2002 to 2007. The number of farms with annual agricultural sales of $100,000 or greater increased in Colorado and Wyoming but significantly decreased in Arizona during the same period. The same data indicate the number of farms in all other "Value of Sales" classifications generally increased across the three states but with two exceptions. There was a slight decrease in the number of Colorado farms having annual sales in the $10,000 to $24,999 category and in the number of farms in Colorado and Wyoming reporting annual sales of $25,000 to $49,000. Arizona farms reporting sales of less than $10,000 more than doubled over the period, a significantly greater increase when compared to the changes in the other two states. The doubling of the number of Arizona farms in this category is a reflection of the NASS Tribal Agricultural Census initiative to more accurately count tribal farm operations and does not necessarily reflect an increase in farm operations.

Table 2.3. Census Data: Farms with Annual Sales of $50,000 or More

State	2007	2002
Sales $50,000 - $99,999		
Arizona	358	307
Colorado	2,283	2,179
Wyoming	975	998
Sales $100,000 - $499,999		
Arizona	502	552
Colorado	3,595	2,931
Wyoming	1,731	1,510
Sales $500,000 or More		
Arizona	551	640
Colorado	1,503	999
Wyoming	395	297

Farm Ownership

Census data from 2002 and 2007 indicate the overall number of farms increased across Wyoming, Colorado, and Arizona during the five-year period. The number of family or individually owned organizations more than doubled in Arizona. The next greatest increase was observed in the number of corporations in the state of Colorado, which increased nearly 124 percent over 2002 numbers. The smallest increase was recorded for family or individually owned farms in Wyoming with just over 10 percent more farms in 2007 than in 2002.

Table 2.4. Census Data: Farm Type of Organization

State	2007	2002
Sole Proprietorship	*(83%)*	*(84%)*
Arizona	13,721	5,695
Colorado	30,164	27,280
Wyoming	8,784	7,566
Partnership	*(9%)*	*(8%)*
Arizona	962	841
Colorado	3,762	2,109
Wyoming	1,024	928
Corporation	*(6%)*	*(6%)*
Arizona	729	593
Colorado	2,342	1,629
Wyoming	1,019	746
All Others	*(2%)*	*(1%)*
Arizona	225	165
Colorado	786	351
Wyoming	242	182

Percentages are for all farms.

Most farm operators own their farms. In 2007, Arizona had the highest percentage of farms with full operator ownership at 89 percent; over 70 percent of Colorado's farms and 64 percent of Wyoming farms were operator-owned. This was an increase ranging from 27 to 144 percent over the number of farms reported in the 2002 census. The percentage of farms partially owned remained essentially the same or showed a slight increase between 2002 and 2007. The number of tenant-managed farms declined in both Colorado and Wyoming but increased 10 percent in Arizona for 2007.

Table 2.5. Census Data: Farm Ownership

State	2007	2002
Full Owners	*(75%)*	*(67%)*
Arizona	13,989	5,723
Colorado	26,486	20,809
Wyoming	7,124	5,560
Part Owners	*(19%)*	*(25%)*
Arizona	913	904
Colorado	8,174	8,131
Wyoming	3,276	3,082
Tenants	*(6%)*	*(8%)*
Arizona	735	667
Colorado	2,394	2,429
Wyoming	669	780

Percentages are for all farms.

Farm Residency

A large percentage of farm operators claim their primary residences as "on the farm," and this number increased by nearly 36 percent from 2002 to 2007, with the greatest increase in Arizona. Off-farm residency increased across all three states by 23 percent, though the number reported for Wyoming declined by more than 45 percent.

Over 70 percent of farm operators in Wyoming, Colorado, and Arizona have lived on their present farms 10 or more years, with the 2007 average ranging from 18.4 to 19.9 years. This was an increase over values reported for the 2002 census. On average, Arizona farm operators claimed a shorter residency on their present farms than operators in Colorado and Wyoming. From 2002 to 2007, census data show substantial increases in the number of farm operators living on their present farms for all time periods reported, except in the case of Colorado operators who reported 5 to 9 years. The greatest increases were indicated by operators who have lived on their present farm 10 years or more (44.5 percent increase) and those who reported 2 years or less (14.1 percent increase). Across all categories, the greatest increases were indicated by farm operators in Arizona.

Table 2.6. Census Data: Years on Present Farm

State	2007	2002
2 years or less	*(4%)*	*(5%)*
Arizona	523	420
Colorado	1,468	1,318
Wyoming	546	485
3-4 years	*(7%)*	*(9%)*
Arizona	1,029	754
Colorado	2,755	2,720
Wyoming	807	775
5-9 years	*(18%)*	*(21%)*
Arizona	2,677	1,673
Colorado	6,615	6,661
Wyoming	1,914	1,848
10 years or more	*(71%)*	*(65%)*
Arizona	11,408	4,447
Colorado	26,216	20,670
Wyoming	7,802	6,314

Percentages are for all farms.

Table 2.7. Census Data: Internet Access, Percent of Farms by State

		Small family farms							
	Total	Limited resource farms	Retirement farms	Residential/ lifestyle farms	Farming occupation/ lower sales	Farming occupation/ higher sales	Large family farms	Very large family farms	Nonfamily farms
Farms with Internet access									
Arizona	40.1%	22.6%	47.4%	52.4%	35.8%	72.2%	76.4%	83.1%	64.7%
Colorado	69.7%	57.3%	57.7%	76.5%	69.2%	74.0%	80.6%	83.7%	67.8%
Wyoming	65.9%	52.1%	58.4%	70.7%	64.0%	73.4%	79.1%	83.4%	65.2%
	61.8%	39.7%	55.7%	71.7%	58.7%	73.7%	79.8%	83.5%	66.5%
Farms with high-speed Internet access									
Arizona	26.9%	11.9%	33.1%	38.3%	22.5%	55.0%	57.8%	62.6%	47.7%
Colorado	47.9%	34.9%	35.2%	56.0%	44.7%	47.1%	61.1%	62.4%	47.9%
Wyoming	42.6%	30.2%	37.0%	47.4%	38.8%	44.8%	53.1%	63.2%	46.6%
	41.9%	23.1%	35.1%	51.8%	37.2%	46.8%	58.7%	62.6%	47.6%

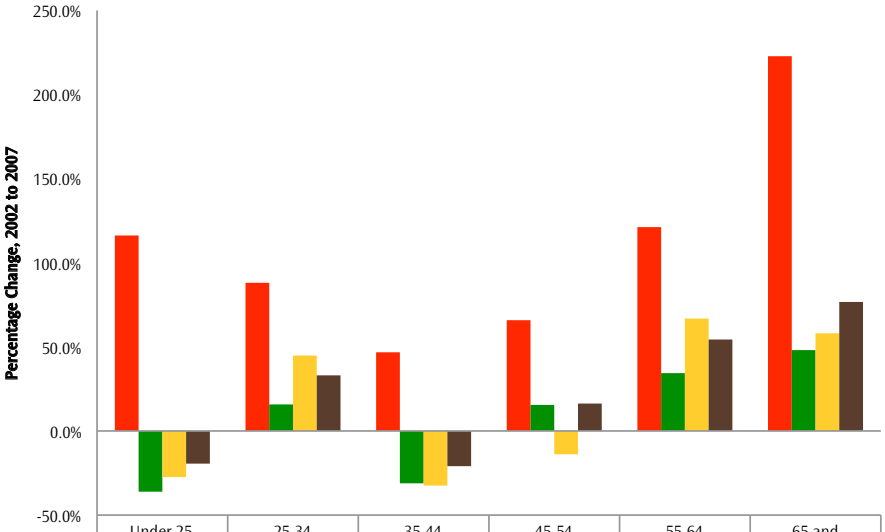
Farm Internet Access

For the first time, the 2007 census also looked at high-speed Internet access. Across the three states, nearly 62 percent of farms reported Internet access (61.8 percent). In addition, nearly 42 percent reported access to high-speed Internet (41.9 percent). Internet access was lowest in Arizona and highest in Colorado. The lowest access levels were reported for small family farms and limited resource farms; and the highest access levels were for very large family farms. Interestingly, the percentage of farms reporting access to the Internet was nearly identical across the three states for very large family farms, with 83.4 percent reporting access to the Internet and 62.4 percent reporting access to high-speed Internet.

Farm Operator Age

The average age of principal operators in Wyoming, Colorado, and Arizona increased from 2002 to 2007. Census data for the three states show that of principal operators under age 25 and those aged 35 to 44 years, fewer are becoming farm operators. Yet, the number of principal operators between 25 and 34 years increased for all three states. Principal operators in all other age categories increased over the same time period except one. The number of principal operators aged 45 to 54 years decreased in Wyoming. The average age of all operators (principal, secondary, and tertiary) increased slightly in all three states.

Figure 2.2. Census Data: Age of Principal Farm Operator, Percentage Change in the Number of Operators by Age Class, 2002 to 2007

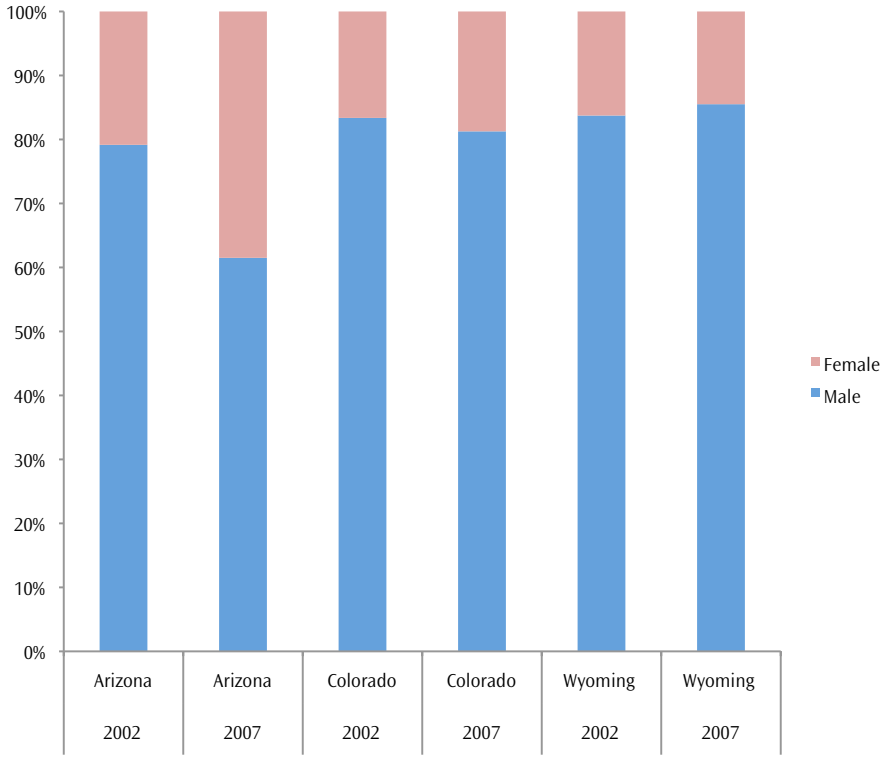


	Under 25 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65 and Over
Arizona	116.2%	88.1%	46.8%	65.9%	121.2%	222.8%
Colorado	-36.1%	15.8%	-31.1%	15.5%	34.4%	48.1%
Wyoming	-27.4%	44.8%	-32.5%	-13.8%	66.8%	58.1%
Total	-19.4%	33.1%	-20.9%	16.3%	54.4%	76.7%

Farm Operator Gender

From 2002 to 2007, the number of female principal operators increased significantly (76 percent) across all three states. Female principal operators now total 14,566. The number of male farm operators also increased approximately 24 percent between 2002 and 2007. The total of all operators for the three states (principal, secondary, and tertiary) reporting they were female was 27,862 in 2007, while those reporting they were male totaled 63,864.

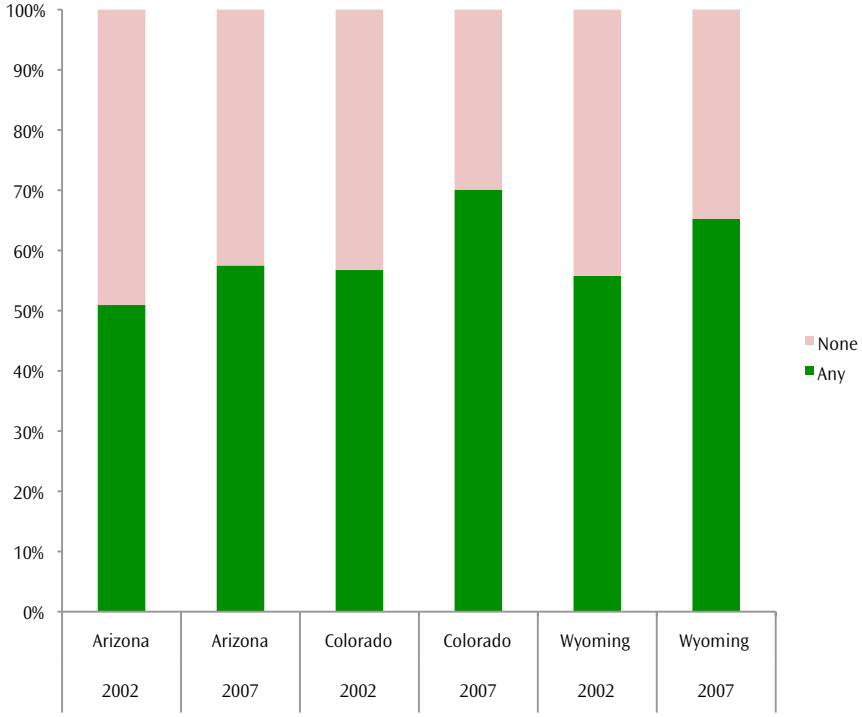
Figure 2.3. Census Data: Number of Primary Operators by Gender



Off-Farm Employment

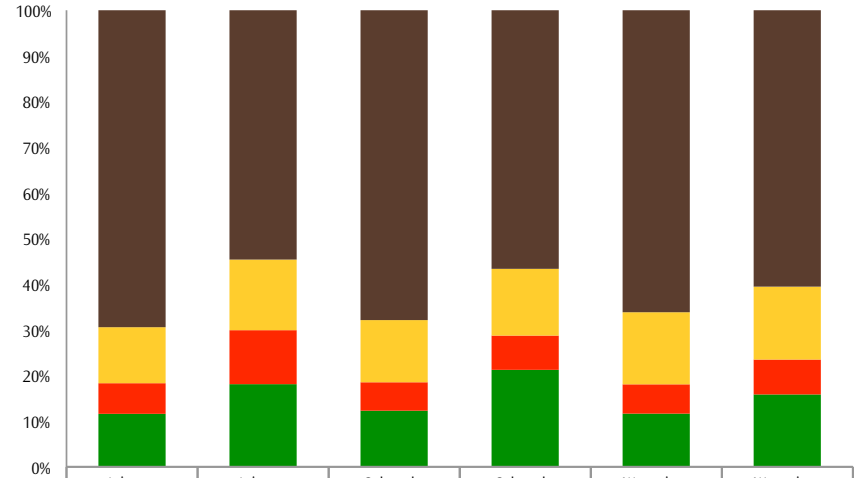
The number of principal operators who worked at least some time off-farm increased more than 57 percent from 2002 to 2007. Principal operators who did not work off-farm declined for both Wyoming and Colorado but increased for Arizona.

Figure 2.4. Census Data: Number of Primary Operators Reporting Days Worked Off-Farm, None vs. Any



The number of principal operators who worked some days off-farm increased across all categories. The most significant increase was with those operators who worked off-farm from 1 to 49 days a year. This number increased nearly 157 percent from 2002 to 2007. The next greatest increase was reported for those who worked off-farm 50 to 99 days. Across all categories, Arizona reported the largest increase in the number of operators working off-farm, generally followed by Colorado and then Wyoming.

Figure 2.5. Census Data: Number of Principal Operators Who Worked Off-Farm by Reported Number of Days

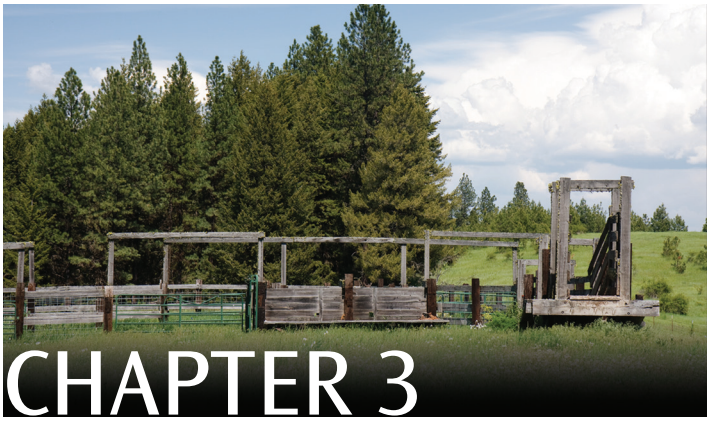


	Arizona 2002	Arizona 2007	Colorado 2002	Colorado 2007	Wyoming 2002	Wyoming 2007
200 or More	2,579	4,910	12,081	14,712	3,476	4,371
100-199 Days	456	1,391	2,425	3,798	830	1,153
50-99 Days	249	1,063	1,108	1,949	337	552
1-49 Days	431	1,627	2,187	5,516	612	1,144

Summary – Chapter 2

From 2002 to 2007, Census of Agriculture data show several demographic changes in the farm and ranch population.

- The total number of all farms in Wyoming, Colorado, and Arizona increased significantly (by 32.6 percent) due to more farms reporting; the number of large farms remained relatively stable.
- Of those reporting, 19 percent have gross annual sales of $50,000 or more.
- Most operators have off-farm employment, with a growing number working off-farm 200 or more days per year.
- The number reporting at least some time worked off-farm increased more than 57 percent.
- Most farm operators own and live on their farms and operate them as sole proprietorships.
- Many farms have access to the Internet and a large number have access to high-speed Internet.
- An increasing number of western farms and ranches are operated by females, with an increase of 76 percent from 2002 to 2007. The number of male operators also increased over the same period by 23.6 percent.
- The average age of farm operators in Wyoming, Colorado, and Arizona increased slightly from 2002 to 2007.



CHAPTER 3

Survey Design and Sampling Procedure

In an attempt to provide information to western land-grant universities, educators, and researchers, the University of Wyoming, Colorado State University, and the University of Arizona developed and distributed a survey to rural operators in the three states. The target audience for this survey was operators reporting greater than $50,000 in agricultural sales.

The survey questionnaire was laid out in eight basic sections in an attempt to obtain five general types of information about the respondents. The questionnaire closely followed the one used in a previous survey of operators reporting less than $50,000 in agricultural sales across the three states, although minor modifications were made to the instrument to improve responses.

The survey sections included:

Reasons for Involvement

These questions were designed to learn why people are engaged in their particular agricultural operations, how committed they are to their businesses and property, their thoughts about risk, and some general characterizations of the farm operators.

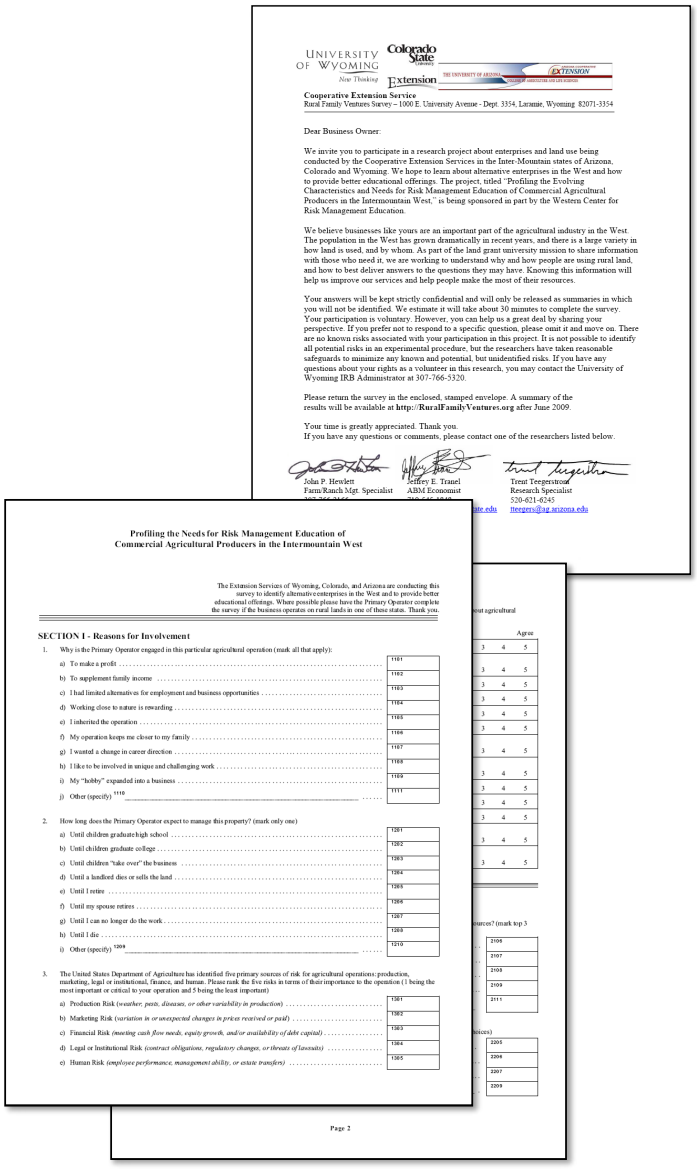
Information Preferences

This section sought information about where and how people like to obtain information. Cooperative Extension, including 4-H, was the subject of five questions.

Resource Management

This section consisted of three subsections. The first subsection pertained to topics like acres managed, water sources, use of chemicals, production of organic/natural/free range or

Figure 3.1. Survey Instrument



Cooperative Extension Service
Rural Family Ventures Survey – 1000 E. University Avenue - Dept. 3354, Laramie, Wyoming 82071-3354

Dear Business Owner:

We invite you to participate in a research project about enterprises and land use being conducted by the Cooperative Extension Services in the Inter-Mountain states of Arizona, Colorado and Wyoming. We hope to learn about alternative enterprises in the West and how to provide better educational offerings. The project, titled "Profiling the Evolving Characteristics and Needs for Risk Management Education of Commercial Agricultural Producers in the Intermountain West," is being sponsored in part by the Western Center for Risk Management Education.

We believe businesses like yours are an important part of the agricultural industry in the West. The population in the West has grown dramatically in recent years, and there is a large variety in how land is used, and by whom. As part of the land grant university mission to share information with those who need it, we are working to understand why and how people are using rural land, and how to best deliver answers to the questions they may have. Knowing this information will help us improve our services and help people make the most of their resources.

Your answers will be kept strictly confidential and will only be released as summaries in which you will not be identified. We estimate it will take about 30 minutes to complete the survey. Your participation is voluntary. However, you can help us a great deal by sharing your perspective. If you prefer not to respond to a specific question, please omit it and move on. There are no known risks associated with your participation in this project. It is not possible to identify all potential risks in an experimental procedure, but the researchers have taken reasonable safeguards to minimize any known and potential, but unidentified risks. If you have any questions about your rights as a volunteer in this research, you may contact the University of Wyoming IRB Administrator at 307-766-5320.

Please return the survey in the enclosed, stamped envelope. A summary of the results will be available at **http://RuralFamilyVentures.org** after June 2009.

Your time is greatly appreciated. Thank you.
If you have any questions or comments, please contact one of the researchers listed below.

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Profiling the Needs for Risk Management Education of Commercial Agricultural Producers in the Intermountain West

The Extension Services of Wyoming, Colorado, and Arizona are conducting this survey to identify alternative enterprises in the West and to provide better educational offerings. Where possible please have the Primary Operator complete the survey if the business operates on rural lands in one of these states. Thank you.

SECTION 1 - Reasons for Involvement

1. Why is the Primary Operator engaged in this particular agricultural operation (mark all that apply):
   a) To make a profit
   b) To supplement family income
   c) I had limited alternatives for employment and business opportunities
   d) Working close to nature is rewarding
   e) I inherited the operation
   f) My operation keeps me closer to my family
   g) I wanted a change in career direction
   h) I like to be involved in unique and challenging work
   i) My "hobby" expanded into a business
   j) Other (specify)

2. How long does the Primary Operator expect to manage this property? (mark only one)
   a) Until children graduate high school
   b) Until children graduate college
   c) Until children "take over" the business
   d) Until a landlord dies or sells the land
   e) Until I retire
   f) Until my spouse retires
   g) Until I can no longer do the work
   h) Until I die
   i) Other (specify)

3. The United States Department of Agriculture has identified five primary sources of risk for agricultural operations: production, marketing, legal or institutional, finance, and human. Please rank the five risks in terms of their importance to the operation (1 being the most important or critical to your operation and 5 being the least important)
   a) Production Risk (*weather, pests, diseases, or other variability in production*)
   b) Marketing Risk (*variation in or unexpected changes in prices received or paid*)
   c) Financial Risk (*meeting cash flow needs, equity growth, and/or availability of debt capital*)
   d) Legal or Institutional Risk (*contract obligations, regulatory changes, or threats of lawsuits*)
   e) Human Risk (*employee performance, management ability, or estate transfers*)

Page 2

other specialty product, and conservation. The second subsection asked about the number of acres of particular crops raised annually and about irrigation. The third subsection solicited information about animal enterprises, feed sources, and grazing strategies.

Income Issues

The sixth section of the questionnaire discussed business structure, filing Schedule F income tax forms, the size of the operation in terms of gross farm income, and primary sources of farm income. Respondents were asked how they market products, finance operations, and how important income for the agricultural operation was to total household income.

Demographics

The seventh section of the survey addressed the demographics of farm and ranch operators. Respondents were asked to indicate how rural they consider their property, to provide a zip code, and whether or not a primary residence is located on the property. A series of questions asked for specific demographic information about the operators, including age, gender, and race.

Other

The final section of the survey asked specific questions about the individual completing the survey and the relationship of Operator 2 to Operator 1. The last question sought to discover previous work experiences for both operators.

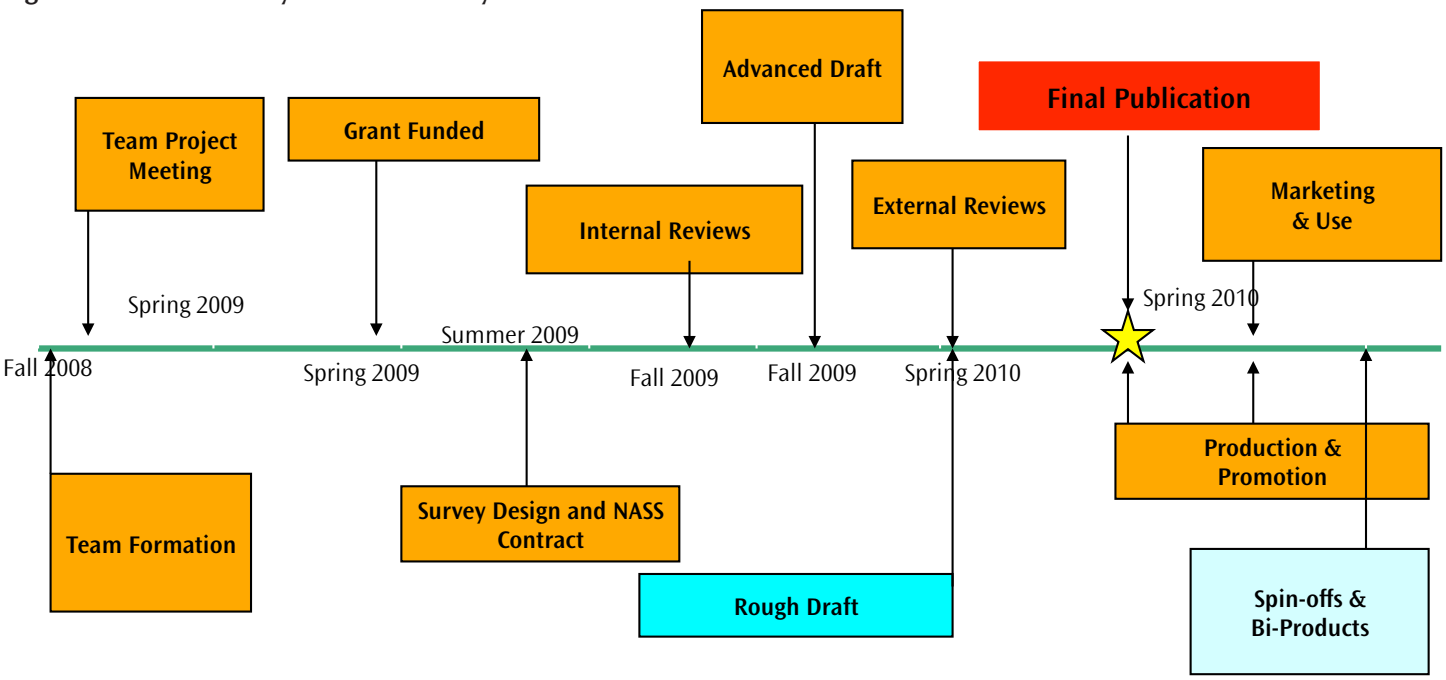
Survey Process

The survey design team collaborated with NASS to conduct the survey. The Colorado office, a NASS regional mailing center, managed the first and second survey mailings, in addition to the postcard follow-up mailing. The Wyoming office, a NASS regional call center, provided the telephone follow-ups, as well as the data entry for all survey returns.

To ensure a representative sample from each state, survey instruments were allocated based on population of large farm operators in each state. The sample was drawn using NASS population density information for the target population (farm operations with annual sales of $50,000 or more). Farm operators were selected from various NASS databases; however, given that NASS was also conducting two additional surveys in the states of interest, the sample drawn for Wyoming, Colorado, and Arizona was split into two groups.

The initial group was contacted in January 2009. These operators had not been selected for contact in either of the concurrent NASS surveys. The second group of large farm operators were contacted in mid-April as they had already been selected for one of the other surveys. These individuals were contacted for the RFV Survey after the other two NASS surveys had been completed.

Figure 3.2. Rural Family Ventures Survey Timeline



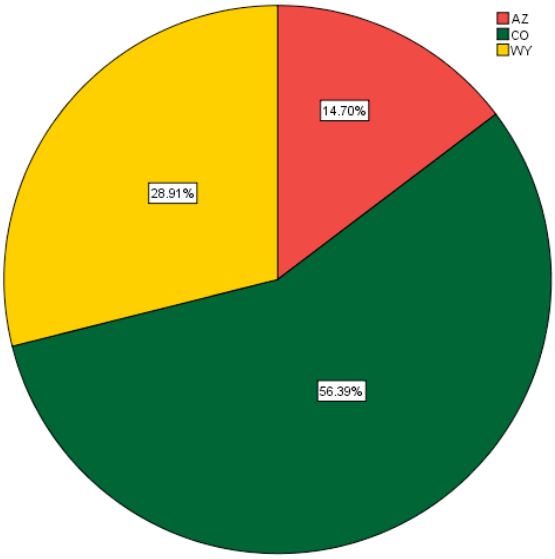
The method of contact followed the same approach for both groups of operators. First, the survey instrument with an explanatory letter was mailed to identified farm operators. A follow-up postcard was mailed two weeks later. A second copy of the instrument was mailed about one week after the postcard. (See Appendix 1 for a copy of the complete survey instrument and specific questions.) Finally, operators who did not return their surveys were interviewed by phone one month after the initial mailing and then about two weeks later. Multiple researchers collected responses during each one-week calling period.

Survey Response

The agreement with NASS specified a survey return rate of at least 50 percent. The mail-out response percentage, calculated on returns received for the mailed instrument only, was 22.8 percent. At 26 percent, Wyoming reported the highest rate of return by mail.

Following the survey mailing, a postcard reminder was sent to those people who had not yet returned their surveys. Non-respondents were contacted by phone in an attempt to reach the 50 percent return rate. The goal was reached in Colorado, Wyoming, and for the total. Although there was not a 50 percent return rate in Arizona, NASS statisticians noted that sufficient surveys had been completed for a statistically valid analysis.

Figure 3.3. Survey Response by State



The mail-out response percentage was calculated based on returns received for the mailed instrument only. Overall, the project reported a 22.8 percent mail-out response percentage. The overall percentage included returns from both mailed instruments and telephone follow-up calls. In total, the project reported a 49.4 percent return across all response types and all three states (1,482 returns). The lowest rate of return was reported for Arizona at 46.9 percent, while the highest rate of return was reported by Wyoming at 52.9 percent.

The total number of survey returns used in compiling the results reported in this bulletin was 1,463 across all three states. Colorado respondents provided 825 returns (56.4 percent), Wyoming managers returned 423 (28.9 percent) and Arizona producers supplied 215 valid returns (14.7 percent).

Table 3.1. Survey Response Rate

State	Surveys Mailed	Surveys Returned	Percent	Surveys and Interviews	Percent
Arizona	475	103	21.7%	223	46.9%
Colorado	1,710	370	21.6%	828	48.4%
Wyoming	815	212	26.0%	431	52.9%
Total for Three States	3,000	685	22.8%	1,482	49.4%

Maps show the survey returns by zip code region across the three states. There was representation from both urban and rural counties. In Arizona, the majority came from the state's most populated areas and the southeastern part of the state. Colorado had a well-distributed return with concentration along the Front Range, western counties, and the northeast plains. Wyoming had a fairly even distribution with a slight concentration in the southeast corner of the state. Wyoming and Arizona received at least one response from each county. Colorado results were represented by returns from every county except seven: Broomfield, Clear Creek, Gilpin, Hinsdale, Lake, Mineral, and San Juan. The shading for each zip code region shows where returned surveys came from; however, this does not necessarily represent where the land is owned.

Figure 3.5. Wyoming Responses by Zip Code Region

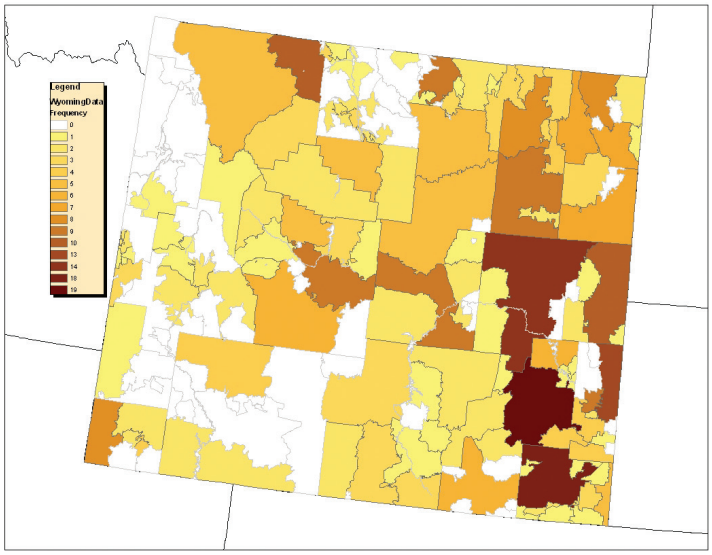


Figure 3.4. Arizona Responses by Zip Code Region

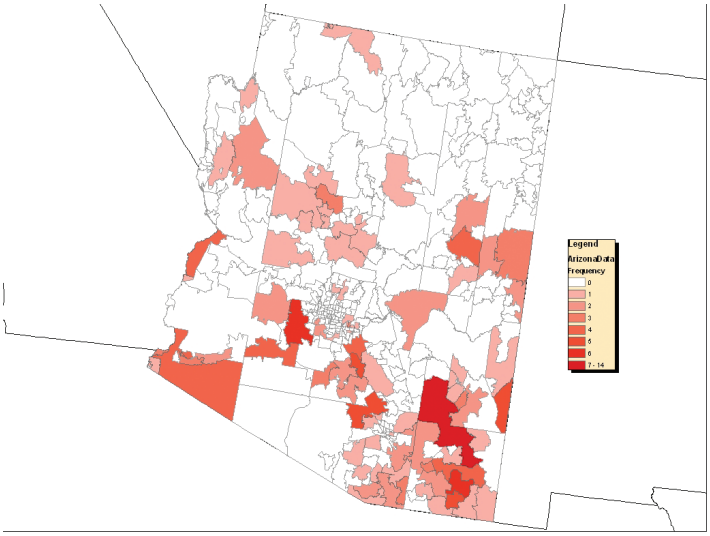
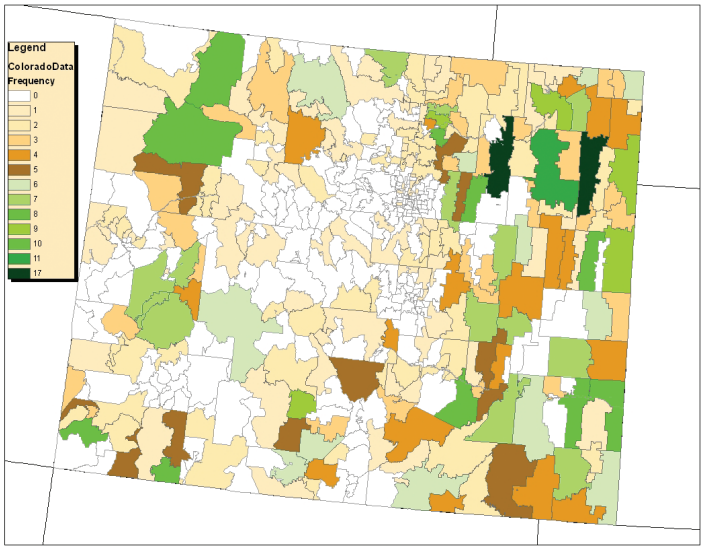


Figure 3.6. Colorado Responses by Zip Code Region



Summary

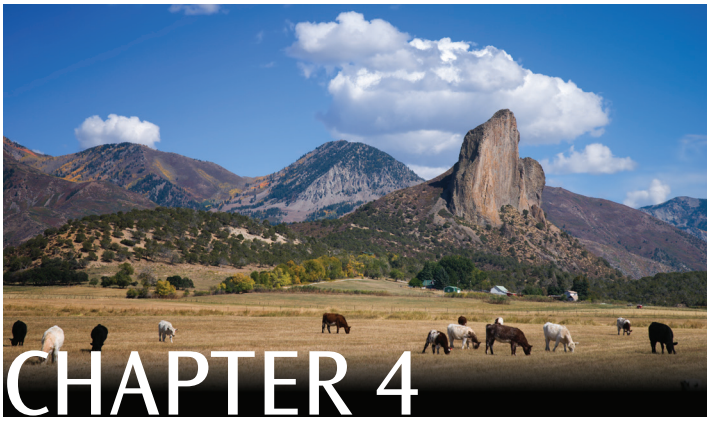
To better understand the educational programming needs for Cooperative Extension Services across the West, the survey collected information about large commercial agricultural operators reporting over $50,000 in agricultural sales. The instrument closely followed the one used in a previous survey of operators reporting less than $50,000 in agricultural sales across the three states.

The questionnaire solicited information about the following topics:

- Why operators engage in a particular crop or livestock enterprise, their level of commitment to the business, and their thoughts about operational risk
- Where and how operators obtain information
- Land and water resource management
- Business structure, financing and marketing strategies, and income issues
- Respondent demographics

The statistically valid survey was conducted by NASS. To ensure a representative sampling, surveys were allocated based on farm populations in each state and geographic representation. The mailed survey was followed by a postcard reminder one week later. In order to achieve a 50 percent response rate, telephone interviews were conducted by NASS approximately one month after the initial mailing.

A total of 1,482 surveys were completed across the three states for a total response rate of 49.4 percent. Survey responses proportionately represented the three states and were from both urban and rural counties. A total of 1,463 valid survey returns were used to compile the reported results.



CHAPTER 4

Demographic Profile

The RFV Survey questions were designed to glean information regarding:

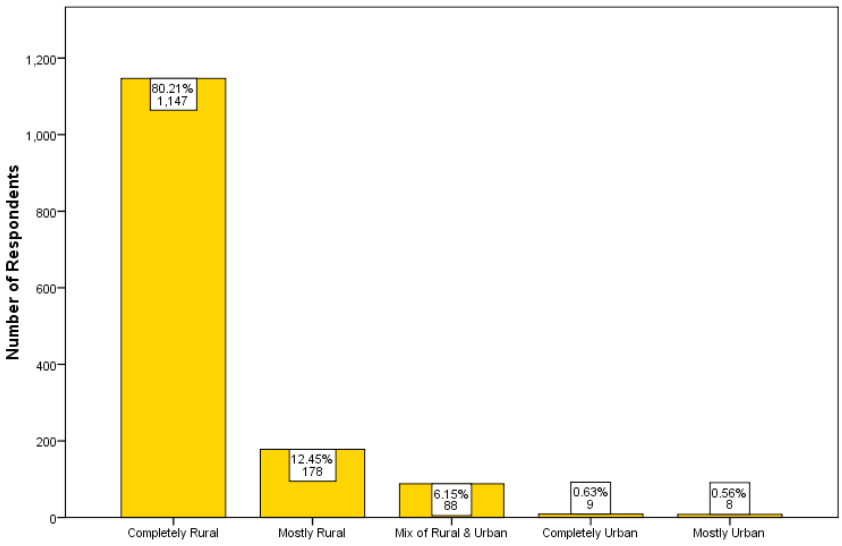
- Location of the enterprise
- Distance from the farm to the nearest metro area
- Off-farm employment that may contribute to household income
- People involved in the operation
- Number of years the operators have been in business and lived in their current local communities
- Gender, age, race, and educational attainment of the operators

This demographic information is required for a clear identification of potential Cooperative Extension clientele in the West--one of the principal objectives of this research project.

Figure 4.1 presents the distribution of farms by their spatial and geographic locations. Farm properties in the West can be classified into five categories: completely rural, mostly rural, mix of rural and urban, mostly urban, and completely urban. There are no fine lines demarcating these five subcategories; however, this spatial identification ranges from completely rural to completely urban. Survey respondents were asked to identify their property within any of the five subcategories.

The chart shows that 80.2 percent of all properties are identified as completely rural and only 0.6 percent are reported as completely urban. In between, 12.5 percent are mostly rural and 0.6 percent are mostly urban. This means that 92.7 percent of all properties are identified as either completely rural or mostly rural.

Figure 4.1. Spatial Distribution of Property



Those who travel to work most commonly commute 5 miles. The median commute is 16 miles, while the average reported commute is 60.6 miles. The maximum distance traveled by a farmer is 850 miles, which indicates that he or she either owns farm property that is leased to a tenant farmer or manages it with the help of paid employees. In other words, among the farming households that have off-farm residences, most commute 5 miles to work.

Figure 4.2. Distance of Primary Residence to Property

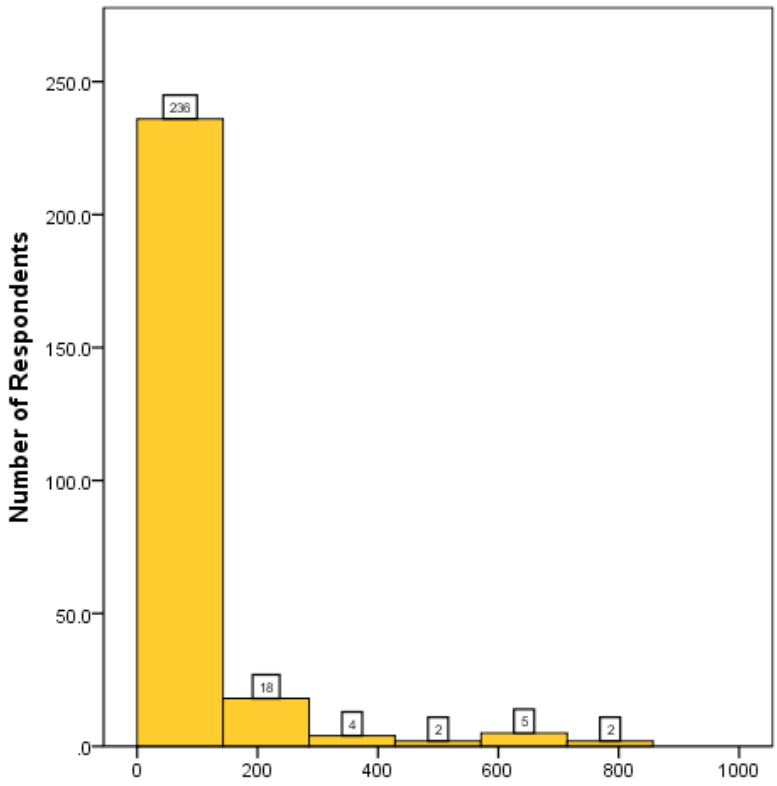


Figure 4.3 shows the distribution of operators by the location of their primary residence. An overwhelming majority of operators (79.1 percent) have a primary residence on their property. The remaining 20.9 percent do not have a primary residence on their property. This implies that these farmers either commute or have paid employees to manage farm activities on a daily basis.

Figure 4.3. Primary Operator Residence on the Property

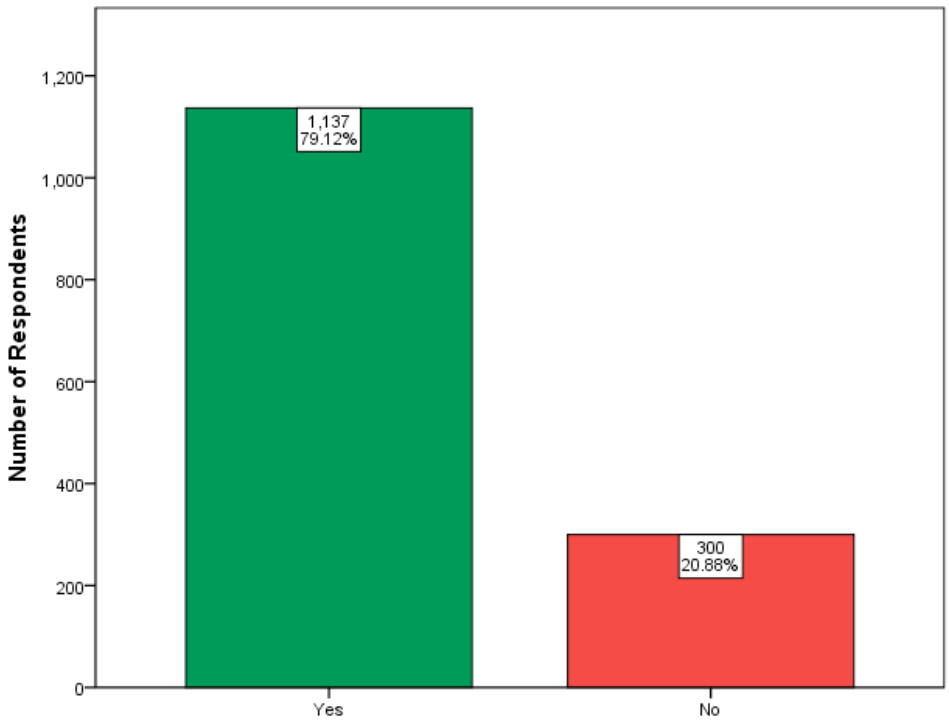


Table 4.1 shows the distance between the property and the nearest metro area. The nearness of farm property to a metro area is important for several reasons. The shorter the distance between the farm property and the nearest metro area, the greater the access to markets for agricultural products, finance, and other amenities that a metro area represents. Also, the shorter the distance between the farm property and the nearest metro area may indicate an increased possibility for off-farm employment. On the other hand, if a farm property is located too near a metro area, it is also more likely to be a target for future urban encroachment due to increasing urbanization.

The most common distance between the property and the nearest metro area (in this farm sample) is approximately 20 miles, while the median and average distances are 22 and 39 miles, respectively. These results suggest that farms are typically located around 20 miles from the nearest metro areas.

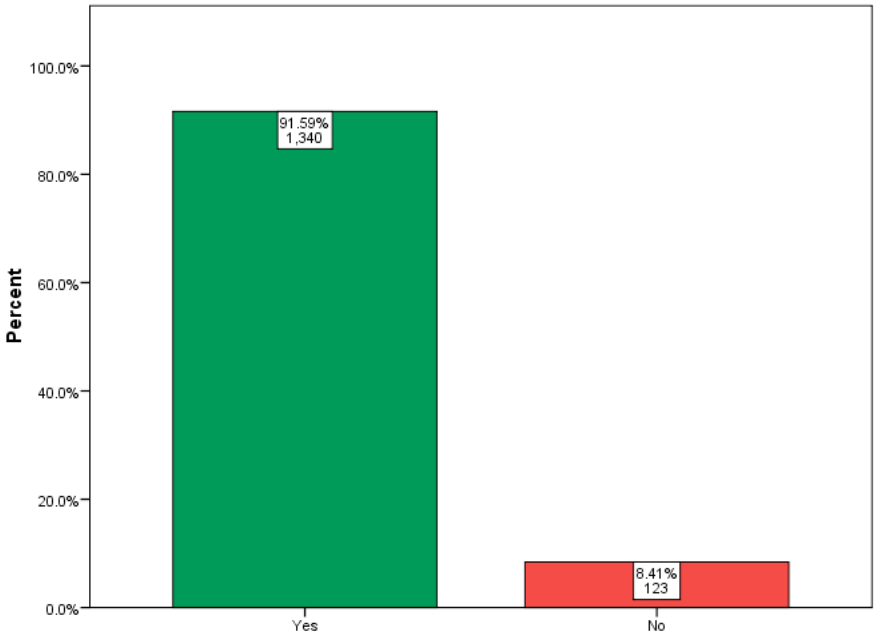
Table 4.1. Distribution of Property from Nearest Metro Area

Distance of Property from Nearest Metro Area (Miles)		
N	Valid	1392
	Missing	71
Mean		39.44
Median		22.00
Mode		20
Std. Deviation		45.824
Variance		2099.813
Minimum		1
Maximum		340

The rural West has experienced dramatic transformations over the past decade. Production agriculture has become more complex, and the make-up of farm operators has been altered significantly. Because of these changes, agricultural operations are increasingly at greater production, financial, marketing, legal/institutional, and human risk. Farmers and ranchers are gradually learning that farming is a game with new rules, new stakes, and, most of all, new risks.

The long-term economic sustainability and viability of these farms are increasingly being brought into question. As farming households have a greater reliance on income from farming, the greater their vulnerability to crop failure and other sources of income shocks. Therefore, in order to examine the vulnerability of farms in the West, the operators were asked whether the primary farm operators or their family members hold an off-farm job, and if some do, how far does the individual who travels the farthest commute to work. Figure 4.4 presents the distribution of operator households by off-farm employment.

Figure 4.4. Currently Hold Off-Farm Employment



Approximately 92 percent of operator households have off-farm jobs. This implies that 92 percent of the operator households have at least two sources of income (including farm income) and, therefore, are less vulnerable to external income shocks. The remaining 8 percent of respondent households do not have off-farm income sources. With regards to Cooperative Extension educational programming, this result suggests that education should target farmers who do not have diversified sources of income because they are less resilient in the face of increasing risks. At this point, Cooperative Extension programming may need to refocus on development and delivery of income diversification programs for farm households with single incomes.

Table 4.2 shows that the most common distance traveled by an individual holding an off-farm job is 0 miles. The average reported by farm households was 11 miles. A careful inspection of the data reveals that, in the operator sample, some operators who report holding off-farm jobs do not travel any distance at all. In fact, 751 farms reported the minimum distance commuted was 0 miles, which implies that some non-farm income activities are in practice on the farm.

Table 4.2. Commuting Distance for Off-Farm Work

Commuting Distance for Off-Farm Work (Miles)		
N	Valid	1340
	Missing	123
Mean		10.87
Median		.00
Mode		0
Std. Deviation		26.448
Variance		699.500
Minimum		0
Maximum		450

Table 4.3 presents the statistics for the number of operators responsible for the day-to-day management decisions for each operation. The most commonly reported number of operators involved is one, while the median and average number of operators are 2 and 1.7, respectively. This suggests that most of the farm operations in the West are usually managed by one person who owns or leases the property. Some of the surveyed farms, however, are managed by as many as 11 operators. So, for a better understanding of demographic and socioeconomic attributes of all farm operators, respondents were asked operator-specific information on age, educational attainment, race, and the number of years lived on the property and in the community.

Table 4.3. Operators Responsible for Day-to-Day Decisions

Operators Responsible for Day-to-Day Decisions for the Property			
		How Many Are Involved	How Many Are Women Operators
N	Valid	1427	1426
	Missing	36	37
Mean		1.72	.49
Median		2.00	.00
Mode		1	0
Std. Deviation		.927	.607
Variance		.859	.368
Minimum		1	0
Maximum		11	4

The charts in Figure 4.5 show the distribution of operators by gender. Looking at the primary operators, 91.7 percent are male, and the remaining 8.3 percent are female. For Operator 2, 60.8 percent are female, with the remaining 39.2 percent reported as male. This suggests that if a farm is managed by two operators, it is mostly likely being managed by a couple; however, most of the farms included in the sample are managed by only one operator (Operator 1 or the primary operator). This, in conjunction with the fact that 91.7 percent of the primary operators are male, suggests that Western operations are male-dominated agricultural enterprises.

Figure 4.5. Gender: Operator 1 and Operator 2

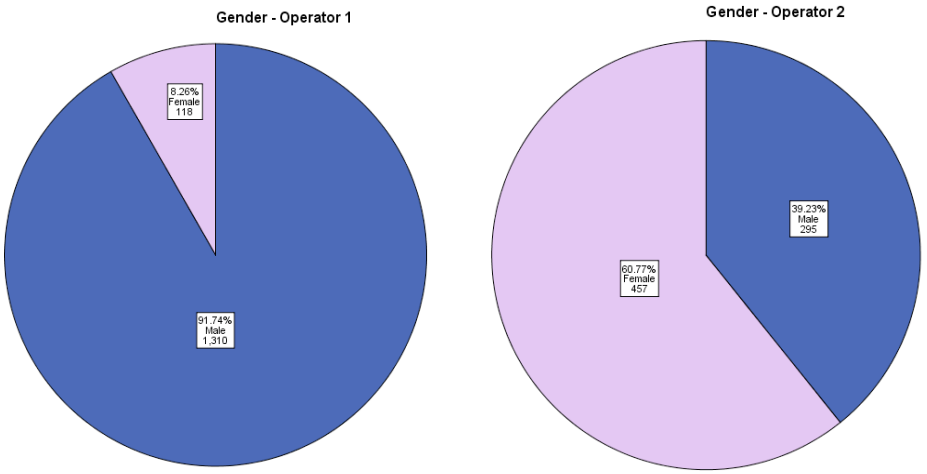
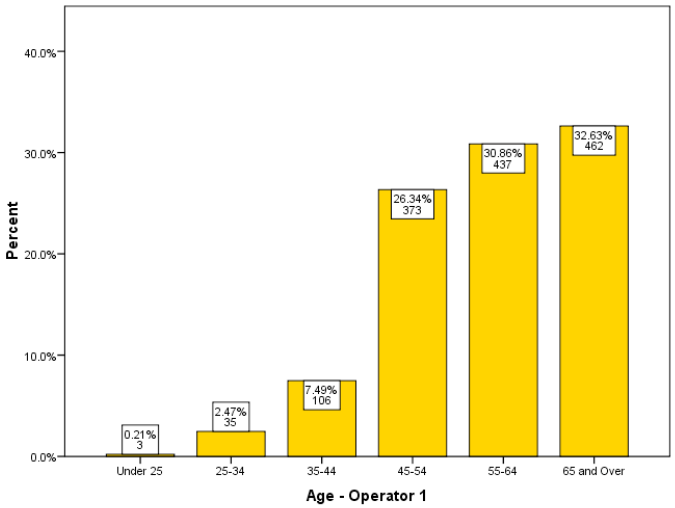
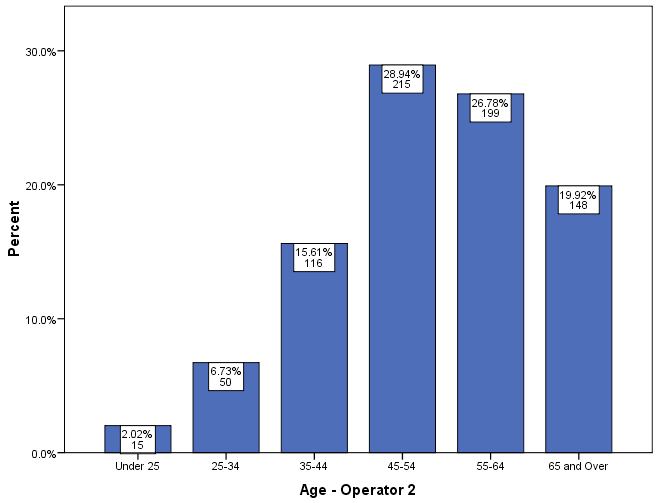


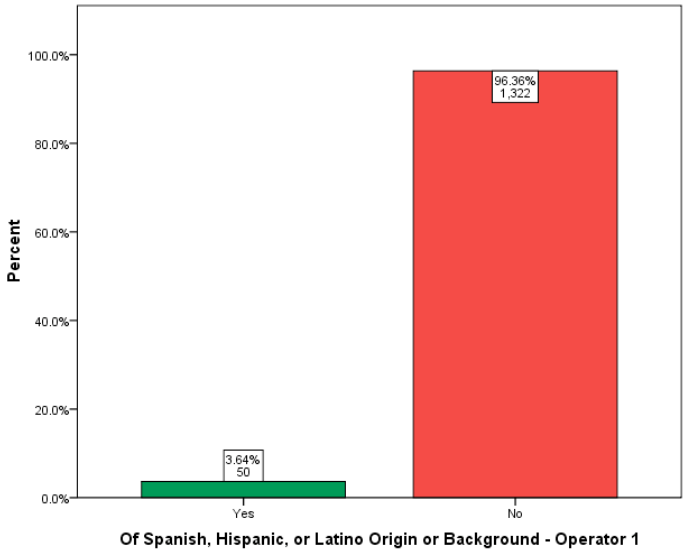
Figure 4.6. Age: Operator 1 and Operator 2

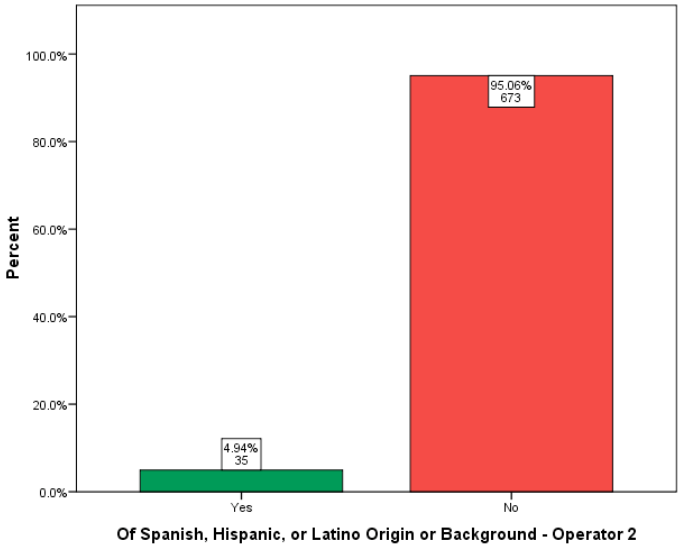




The two charts in Figure 4.6 show the age distribution of Operators 1 and 2 in Wyoming, Colorado, and Arizona. From these charts, the following inference is unmistakable. Approximately 33 percent and 20 percent of Operator 1 and Operator 2, respectively, are age 65 and over. This observation is important for two reasons. First, this is a significantly older age group of farmers who are most likely to retire from farm activities in the next decade or so. What happens to their farms after they retire is uncertain. There are no guarantees their farms will remain as farm land and will not be converted to non-farm uses after their retirements. Second, as an older group of farmers, they are less likely to be receptive to new technologies and risk management strategies such as farm diversification strategies. This poses additional challenges for Cooperative Extension educators in the West.

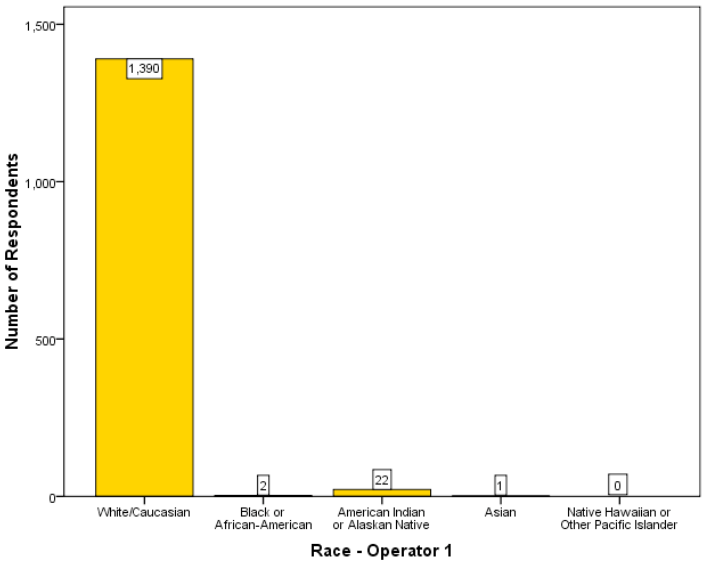
Figure 4.7. Of Spanish, Hispanic, or Latino Origin or Background: Operator 1 and Operator 2

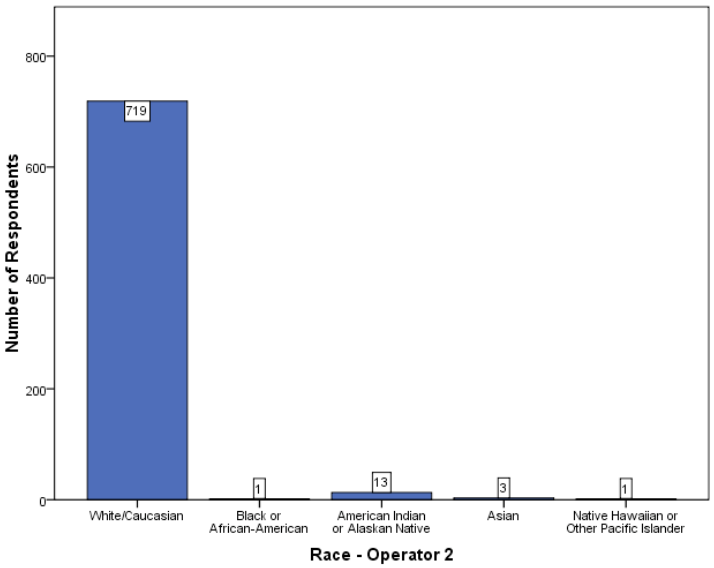




The 2007 Agricultural Census reported that 1.4 percent of all operators on farms in Wyoming are of Spanish, Hispanic, or Latino origin or background, while the corresponding figures for Colorado and Arizona are 4.3 percent and 4.9 percent, respectively. Consistent with state-level data, the RFV Survey results show that 3.6 percent of primary operators and 4.9 percent of secondary operators indicated they were of Spanish, Hispanic, or Latino origin or background.

Figure 4.8. Race: Operator 1 and Operator 2





According to 2007 Agricultural Census population estimates, 97.2 percent of farm operators in Wyoming are White, while the corresponding figures for Colorado and Arizona are 97.8 percent and 45 percent, respectively. The race reported as the next highest majority for Arizona was American Indian or Alaska Native. The number of these operators increased from 291 in 2002 to 8,436 in 2007, reflecting a strong effort by NASS to increase the accuracy of its counts for all operation types in the most recent census.

Consistent with state-level statistics in the three states, more than 97 percent of RFV Survey respondents reported their race as White. (See Figure 4.8.) This demonstrates that RFV Survey results are representative of the racial composition of the population for each state.

Figure 4.9. Highest Level of Education: Operator 1 and Operator 2

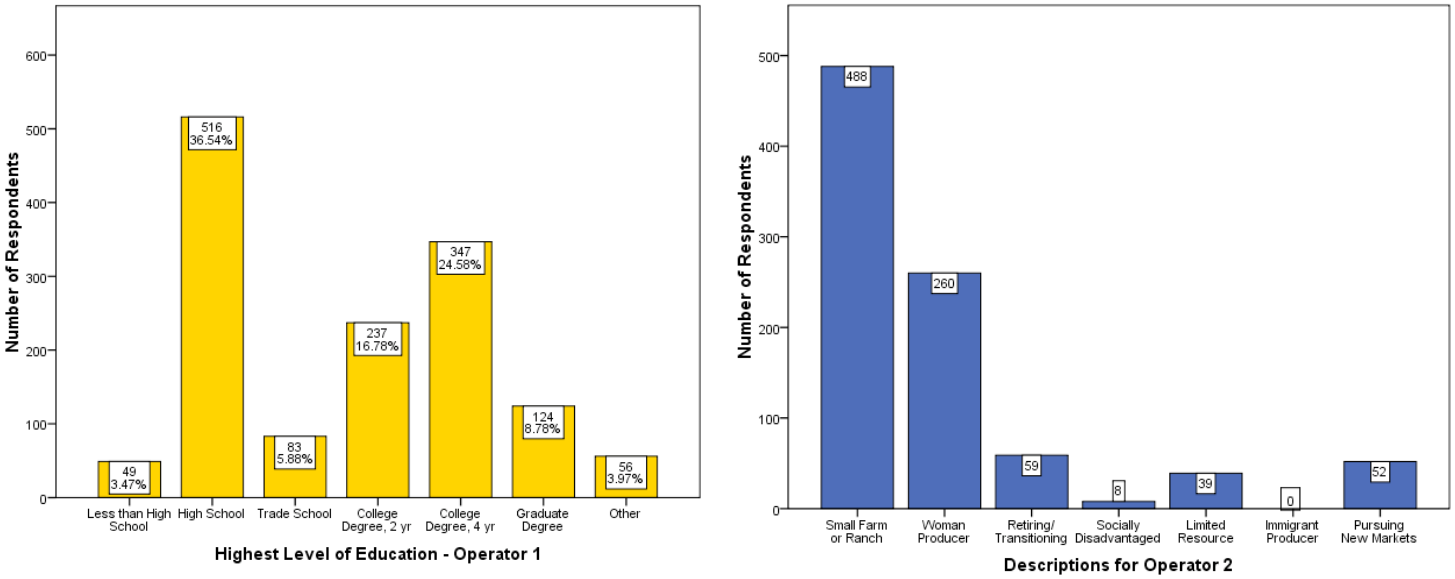


Figure 4.9 shows the distribution of both operators by highest level of education. While 36.5 percent of those listed as Operator 1 reported their highest level of education as high school, approximately 50 percent reported the highest level of education as at least two years of college. In looking at the educational achievements of Operator 2, a similar picture emerges. Clearly, farm operators in the West are educated.

Table 4.4 provides summary statistics on the tenure of farm operators on their properties and in their communities. The longer an operator has managed an enterprise, the greater his or her ability to understand various complexities of production agriculture and the corresponding strategies needed to mitigate risks.

Operator 1 most commonly has lived on his or her property for 10 years; however, there are some operators who have lived on their properties for less than one year. As discussed in preceding sections, a significant percentage of farm operators do not have primary residences on their properties, and some have lived on their properties for up to 94 years. This demonstrates that these operators have been life-long farmers. Similar inferences can be drawn from the statistics for Operator 2.

Table 4.4. Tenure on Property: Operator 1 and Operator 2

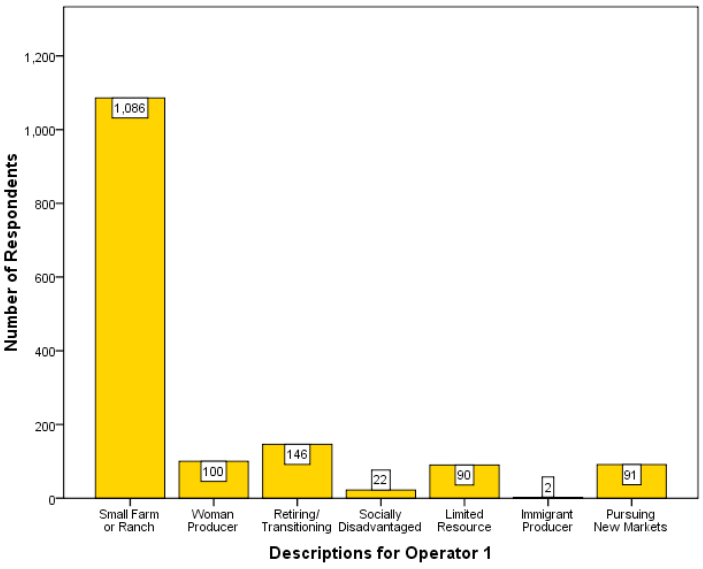
Tenure on Property (Years)			
		Operator 1	Operator 2
N	Valid	1385	715
	Missing	78	748
Mean		28.80	24.22
Median		25.00	20.00
Mode		10	30
Std. Deviation		19.570	17.693
Variance		382.970	313.034
Minimum		0	0
Maximum		94	87

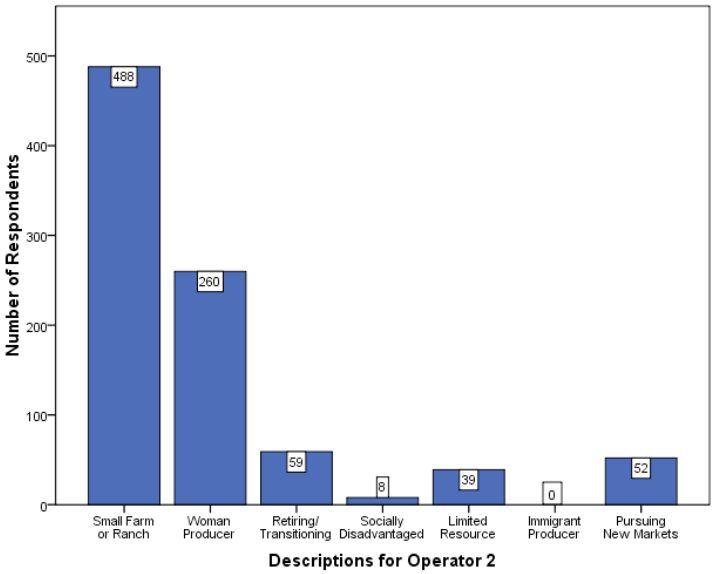
There is a very high correlation between the number of years operators have lived on their properties and the number of years they have lived in their respective communities. Most common responses were 50 and 30 years, respectively, for Operator 1 and 2.

Table 4.5. Tenure in Community: Operator 1 and Operator 2

Tenure in Community (Years)			
		Operator 1	Operator 2
N	Valid	1361	694
	Missing	102	769
Mean		41.94	35.11
Median		45.00	33.00
Mode		50	30
Std. Deviation		20.317	19.425
Variance		412.773	377.317
Minimum		0	0
Maximum		94	92

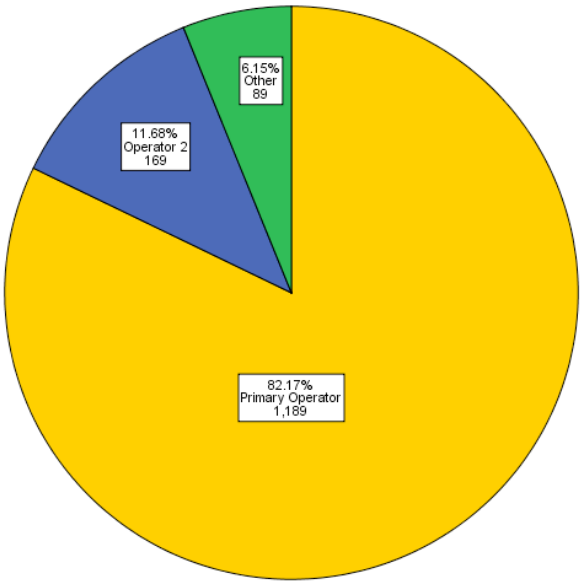
Figure 4.10. Descriptions: Operator 1 and Operator 2





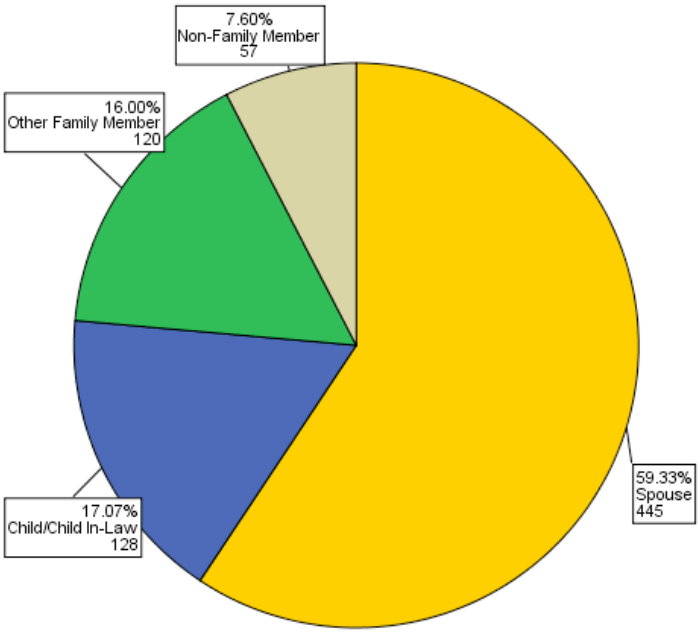
In the RFV Survey, operators were given the opportunity to describe themselves in terms of whether they fit as a small farm or ranch enterprise, a woman producer, a retiring or transitioning producer, a socially disadvantaged producer, a limited resource producer, an immigrant producer, or a producer converting production and/or marketing systems to pursue new markets. An overwhelming number of farm operators described their operation as a small farm or ranch.

Figure 4.11. Individual Completing the Survey



The majority of surveys were completed by the primary operator.

Figure 4.12. Relationship of Operator 2 to Operator 1



As expected, approximately 60 percent of the operators surveyed are spouses. That is, a majority of farm operations are managed by couples.

Summary – Chapter 4

In summary, Cooperative Extension clientele in the West are highly homogeneous with respect to their social and demographic attributes.

- The majority of farm operators indicated their operations are completely rural or mostly rural.
- Most operators live in a residence located on the property (79 percent). Those with off-farm residences are most often located 5 miles from the property.
- Respondents most often reported the distance to the nearest metro area as 20 miles.
- A total of 92 percent indicated that at least one member of the primary operator's household currently holds an off-farm job.
- The most commonly reported number of operators involved in day-to-day decision making is one, and that person is typically a male.
- Operator 2 was most often reported as female (61 percent).
- The primary operator age was most often reported as 65 and over, with nearly 90 percent indicating 45 or more years of age. Operator 2 most frequently indicated she is 45 to 54 years of age, with nearly 76 percent indicating 45 or more years of age.
- Operator race was most frequently reported as White.
- For most operators, the highest level of education is high school, with 37 percent of primary operators indicating a 4-year college degree or more. Thirty-nine percent of those listed as Operator 2 indicated a 4-year college degree or higher.
- The primary operator most often reported tenure on the property as 10 years, while Operator 2 most often reported 30 years.
- Primary operators most often reported their tenure in the community as 50 years, while the most frequent response for Operator 2 was 30 years.

- All operators most frequently selected “small farm or ranch” as a description for their operation.
- The majority of the surveys were completed by the primary operator (82 percent), with a significant number of second operators indicating they are “women producers.”
- The relationship of Operator 2 to the primary operator was most often reported as “spouse” (59 percent).

CHAPTER 5

Reasons for Involvement

It might not always be easier to run an enterprise with family members, but when family enterprises work, they possess a competitive advantage no other business can match. An enterprise run by family members is often more resilient and more likely to succeed than any other business simply because of its makeup. Family members know how to sacrifice. And customers perceive family operations as being in business for the long haul.

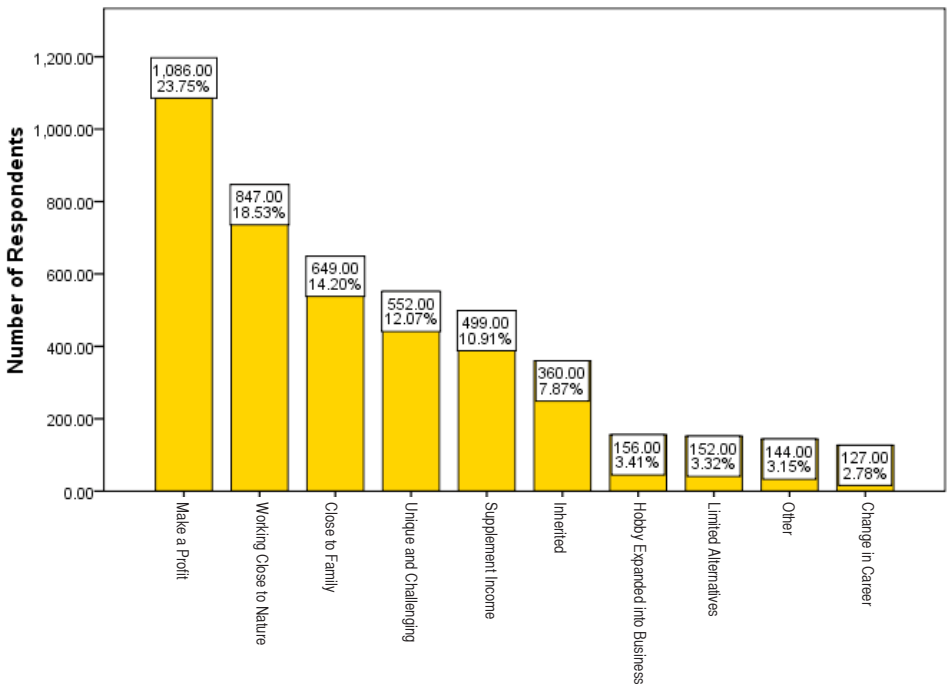
The reasons people are involved in rural family businesses vary as much as the businesses themselves. The "Reasons for Involvement" section of the RFV Survey had four components:

- Attitude concerning the rural family enterprise
- Perception of risks facing the enterprise
- Characteristics of the rural family venture operator
- Management goals of the operator

From a list of ten items, respondents were asked to indicate why they engage in their particular enterprise. It should be noted that respondents were able to indicate more than one reason. As Figure 5.1 indicates, making a profit was the most frequently stated reason for operators to engage in rural family enterprises. Given the make-up of the respondents, this would be expected.

Working close to nature was also a major reason for engaging in agricultural operations. Again, this would be expected given the nature of agriculture.

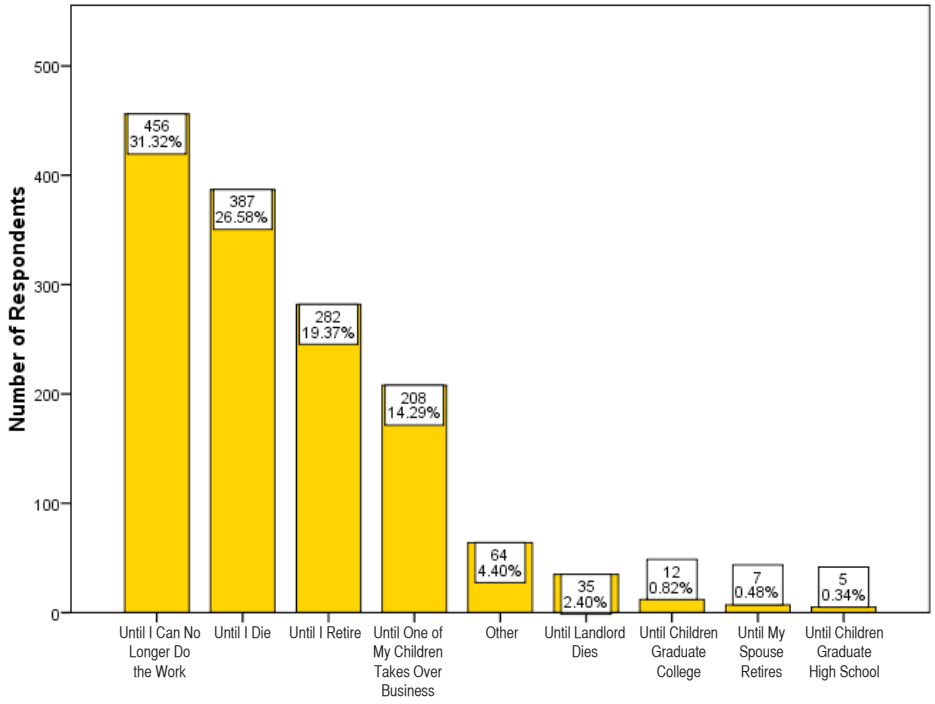
Figure 5.1. Reasons for Engagement



For many, living and working in a rural family business is more than being in business. The general impression is that these individuals are totally committed to their family businesses. Some would say it is almost like a calling. The RFV Team wanted to know if this held true for farm operators, too; or would certain developmental or lifestyle conditions lead operators to leave their family businesses? In this question, respondents were asked to check one item only.

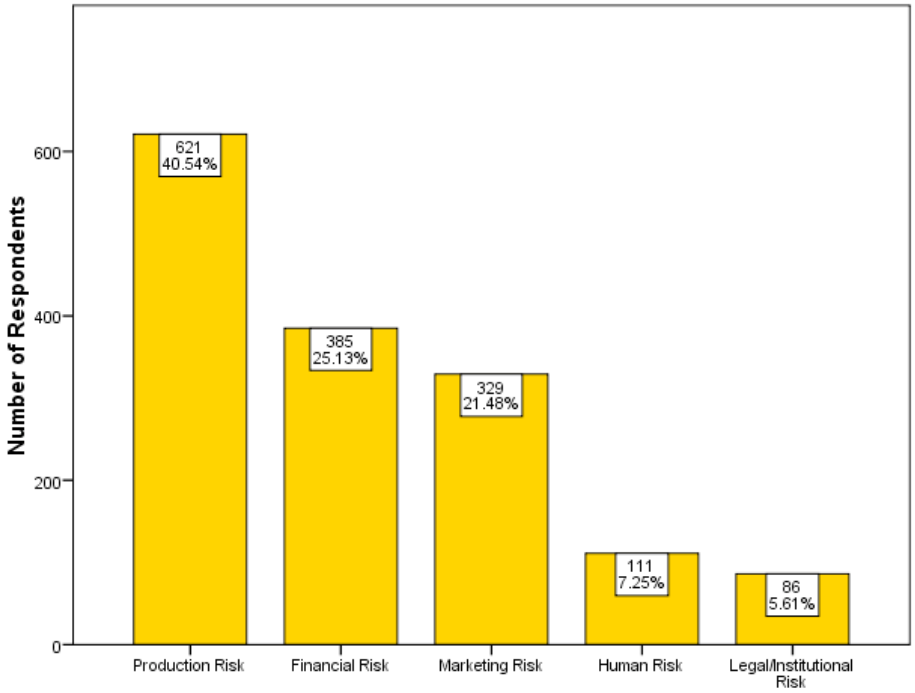
As Figure 5.2 illustrates, respondents overwhelmingly expect to manage their property until they can no longer do the work. Almost 60 percent of respondents do not expect to exit farming.

Figure 5.2. Planned Length of Property Management



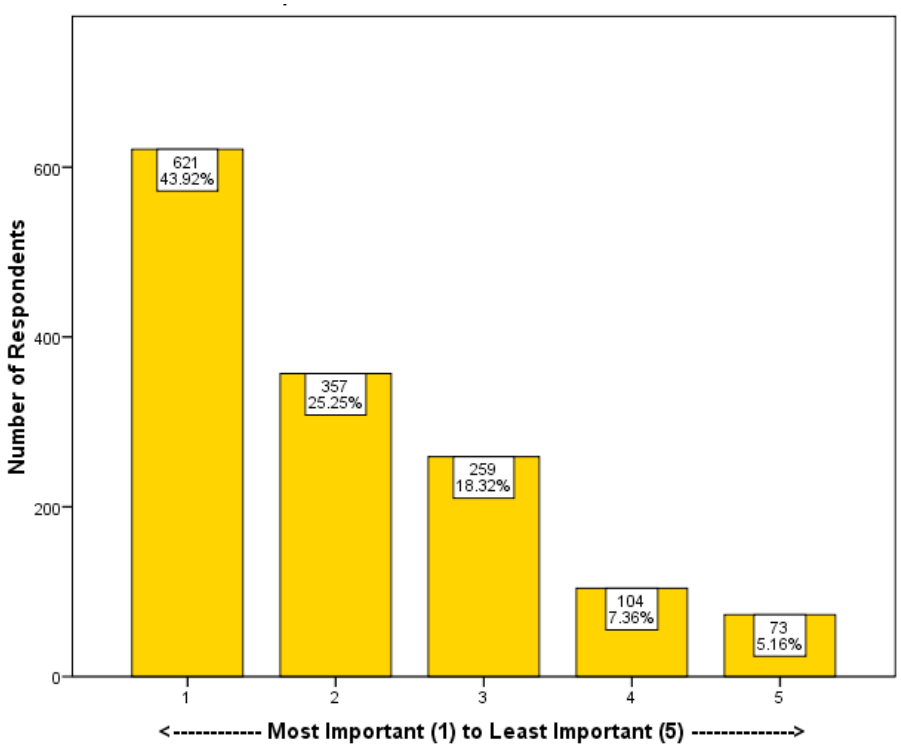
The U.S. Department of Agriculture has identified five primary sources of risk for agricultural operations: production, marketing, legal or institutional, financial, and human. Production risk is the most important risk faced by responding managers.

Figure 5.3. Importance of Risk by Type



The major sources of production risk are weather, pests, diseases, the interaction of technology with management decisions, genetics, agricultural efficiency, and the quality of inputs. Overall, production risk ranked as the most important source of risk, as 69.2 percent of respondents ranked it either first or second.

Figure 5.4. Importance of Production Risk

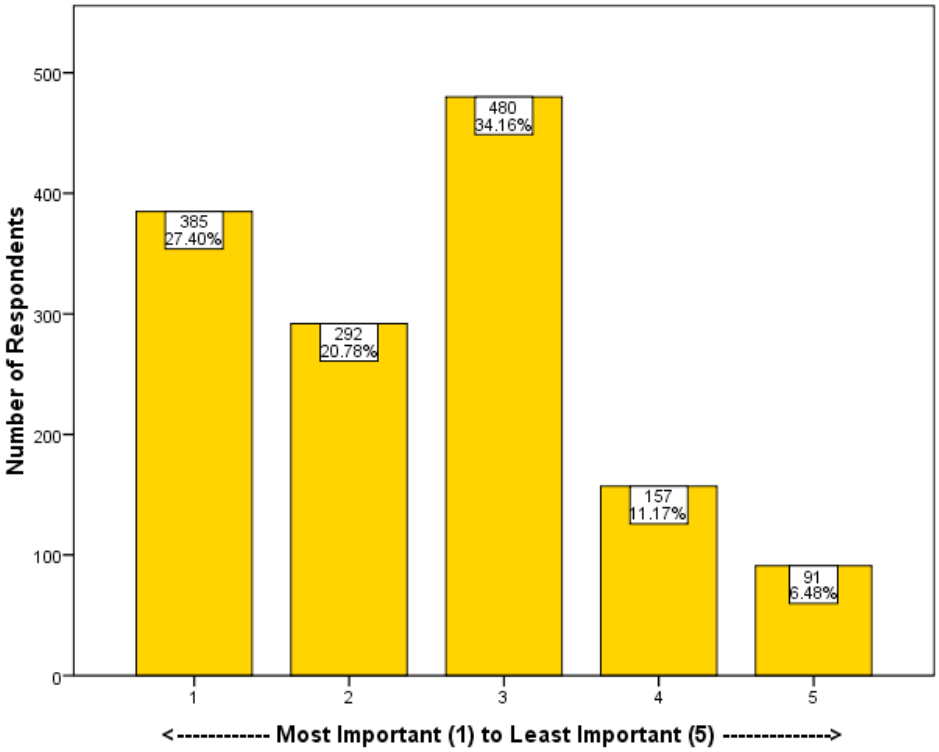


Marketing is that part of the rural enterprise that transforms production activities into financial success. Marketing agricultural products involves information, objectivity, attitude, and skill. Most respondents ranked marketing risk as the second most important source of risk. Marketing, along with financial risk, showed the greatest variability by respondents (Figure 5.5).

Figure 5.5. Importance of Marketing Risk

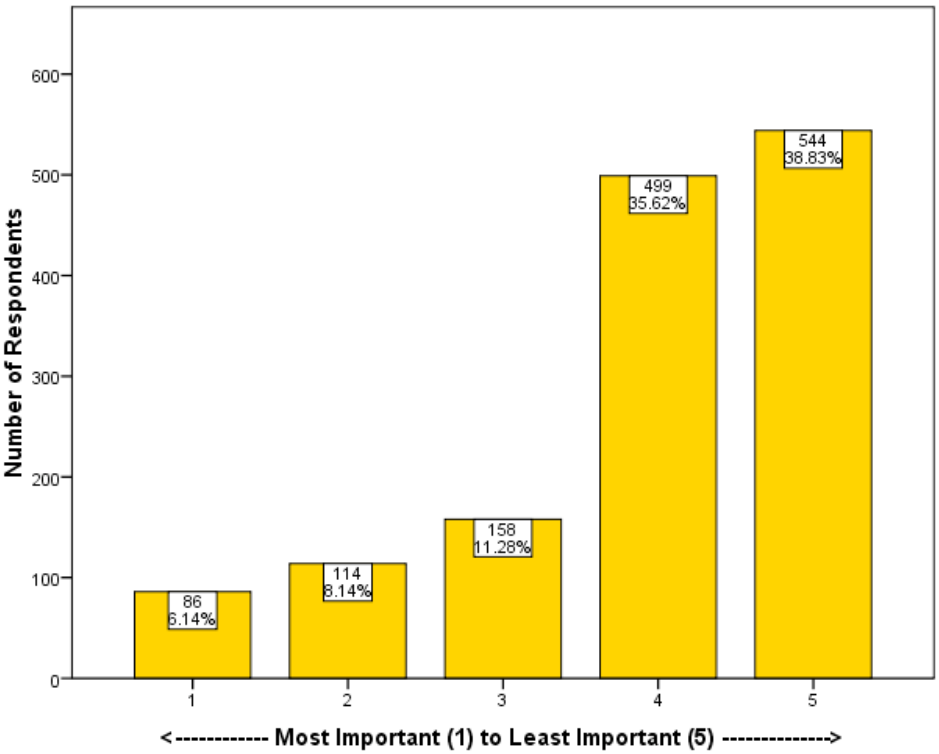
Financial risk has three basic components: 1) the cost and availability of capital, 2) the ability to meet cash flow needs in a timely manner, and 3) the ability to maintain and grow equity. More respondents ranked financial risk as the third most important when compared to the other four sources of risk. Though respondents ranked financial risk second overall, fewer ranked it first or second (48.2 percent) compared to marketing risk, which was ranked first or second by 60.7 percent of respondents.

Figure 5.6. Importance of Financial Risk



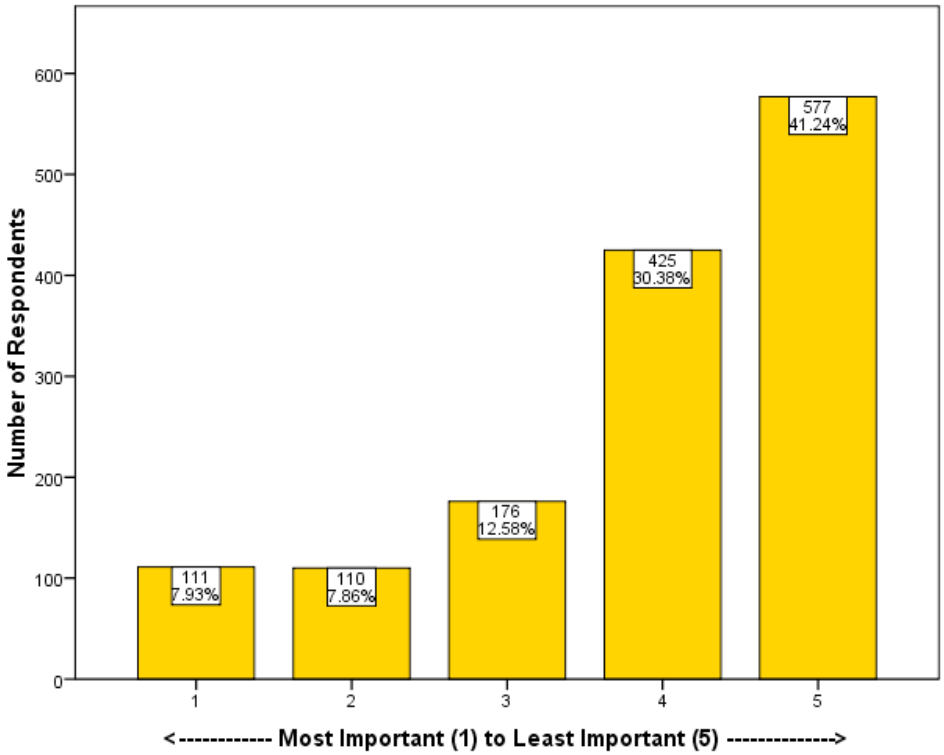
Legal issues most commonly fall into four broad categories. The first encompasses issues of appropriate legal business structure and tax and estate planning. The second includes contractual arrangements. The third includes a broad range of tort liability, and the fourth category relates to statutory compliance. It appears that respondents ranked legal risk management the least important, as 75.5 percent of respondents ranked it either fourth or fifth. In addition, fewer respondents ranked this area as the most important source of risk to their operation (6.1 percent).

Figure 5.7. Importance of Legal or Institutional Risk



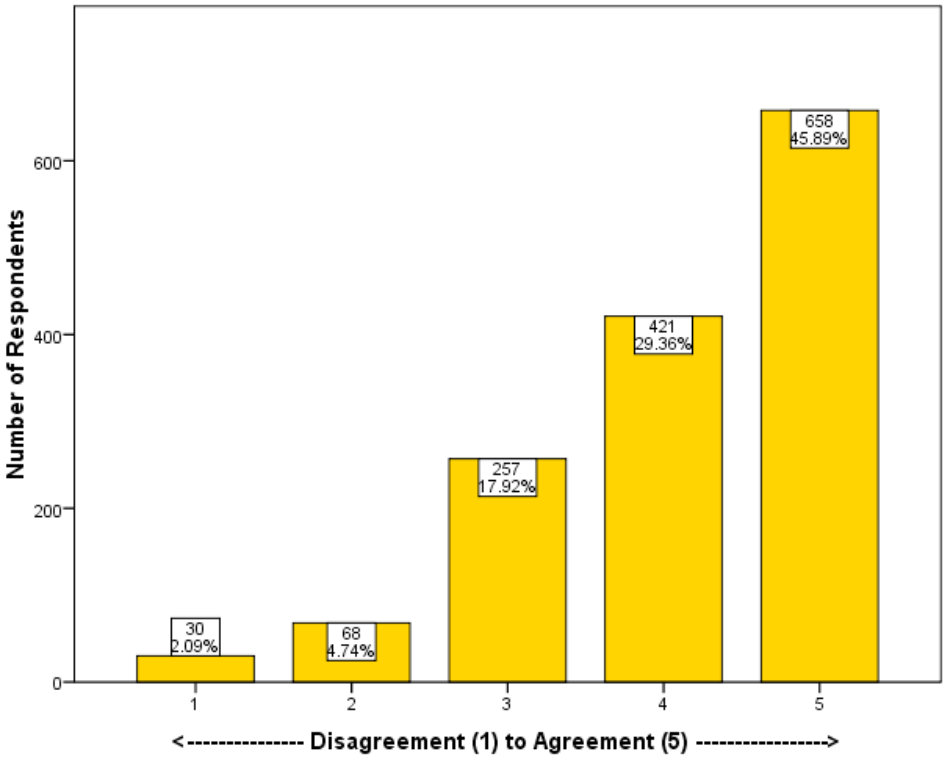
Managing and interacting with people is the prime focus of human risk management. Supervising labor, interacting with family, and communicating with people who support the operation are human risk management skills. In addition, human risk management also includes planning for one's personal future, retirement planning, and anticipating and planning for calamities. Next to legal risk, more respondents ranked human risk the least important (Figure 5.8). But by comparing these numbers with the rankings for legal or institutional risk, results show they are almost identical in rating by respondents.

Figure 5.8. Importance of Human Risk



Farmers and ranchers are the original entrepreneurs. An entrepreneur is someone who creates a new business in the face of risk and uncertainty for the purposes of achieving profit and growth. He or she identifies opportunities and assembles the necessary resources to capitalize on them. According to the Canadian Farm Business Management Council, successful rural family business operators have certain characteristics: high confidence, an expectation to succeed (will power), persistence, a desire for achievement, innovation, a tendency toward risk taking, an ability to maintain personal balance, and optimism about the future. The RFV Survey tapped those characteristics by asking operators to indicate their agreement or disagreement with statements about their rural family businesses.

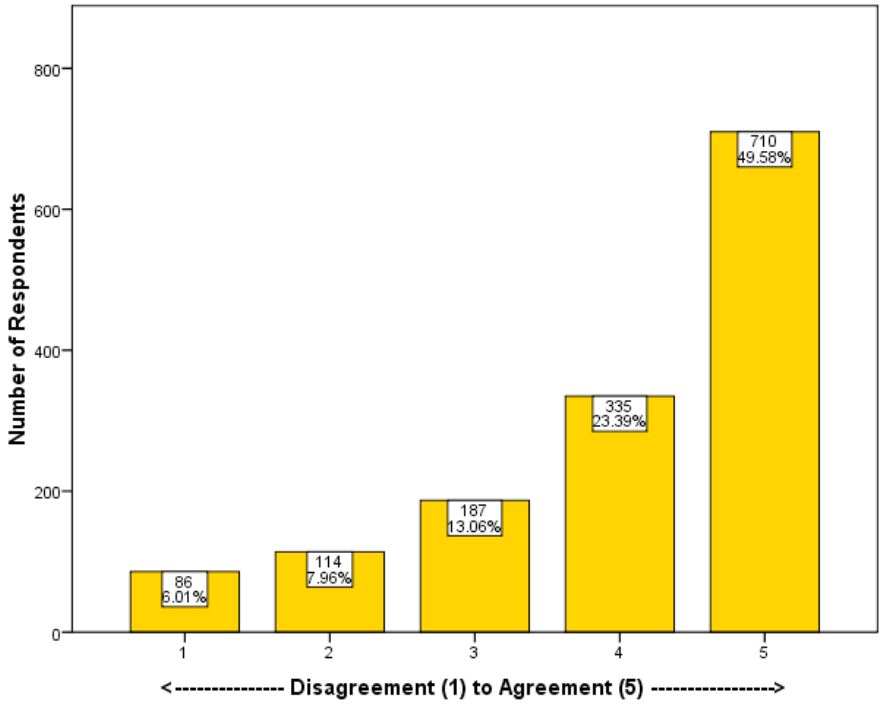
Figure 5.9. Risk-Taking in the Midst of Uncertainty



Respondents were asked to disagree or agree with this statement: "I am comfortable with the way I handle uncertainty in my business environment." Farming and ranching can be a risky business. Many factors that will help determine the ultimate success are outside of one's control. To be successful, the operator must accept (some say relish) uncertainty and be willing to take risks. Survey results show respondents are comfortable in handling uncertainty in the family business environment.

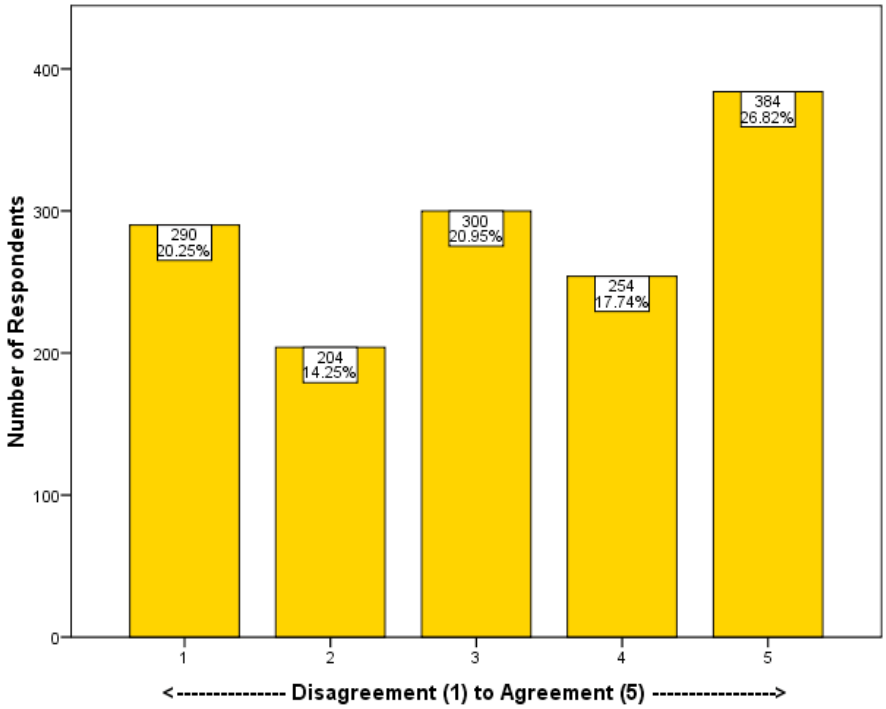
A rural family business operator must have confidence in his or her ability to run a successful operation. There may be plenty of people offering help and advice but the final decision is the operator's. When asked to agree or disagree with this statement: "Success in my business is driven by my own abilities as an individual rather than relying on others to help me succeed," respondents in this survey strongly expressed their agreement.

Figure 5.10. Confidence in Ability to Run a Successful Business



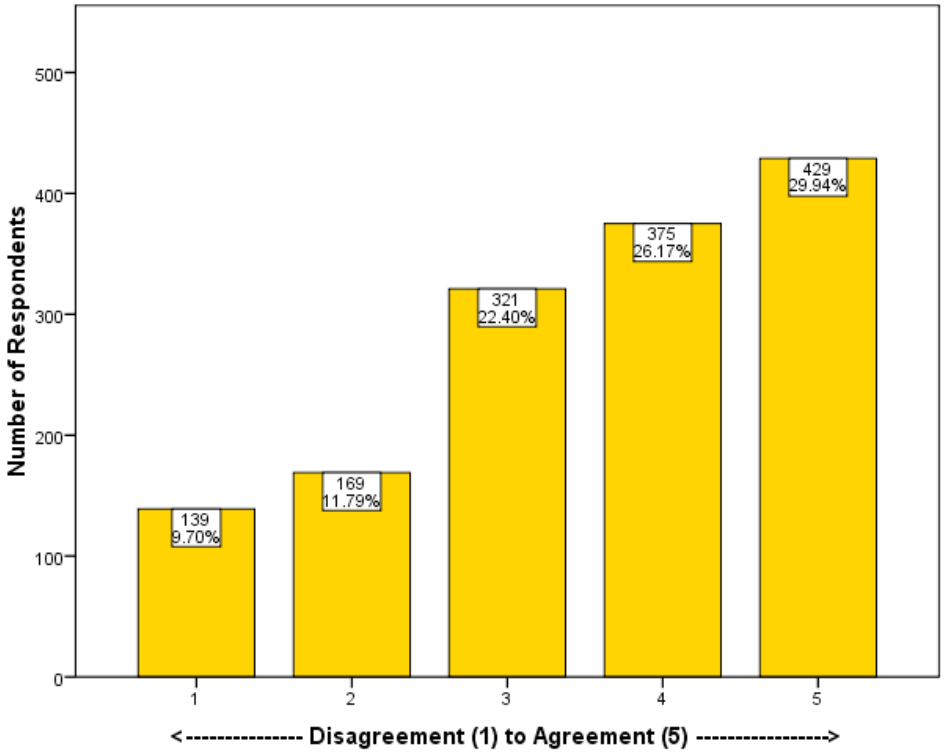
Farming and ranching involves a seemingly infinite number of tasks that must be accomplished. An operator must wear many hats to create and manage his or her operation. To deal with the many tasks and "hat changes," operators need time for themselves, as well as for their businesses. But, as survey results show, respondents vary a great deal in their attitudes about time for themselves. There was less consistency in response to this statement than any of the others related to successful business operators.

Figure 5.11. Maintaining Balance between Work and Personal Time



To be successful in a family business, one needs to be optimistic, to have hope, and to have a positive expectation for the future of the business. No business has more variables or a greater number of unpredictable factors than farming or ranching. Respondents were asked to disagree or agree with this statement: "I am optimistic about the future of my business." Figure 5.12 shows that, though operator optimism is not as strongly skewed in agreement as is confidence in one's own abilities, respondents are still quite optimistic overall.

Figure 5.12. Optimism about the Future of Business

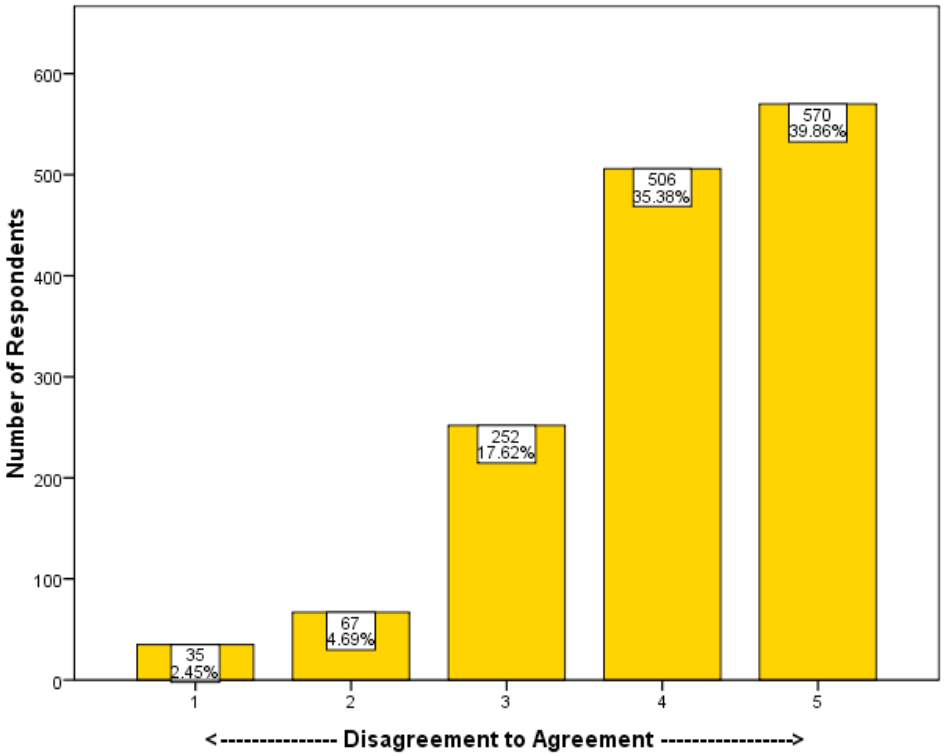


A farmer or rancher in a family business is responsible for achieving his or her business success. The success of the business is also important to others who are involved in, or who support, the rural family business operation. The operator must have the attitude that he or she will succeed. If this attitude is not present, an operator may not be inclined to put forth the effort needed for success. Respondents to this question indicated they have the attitude of success.

Figure 5.13. Possess Successful Operator Attitude

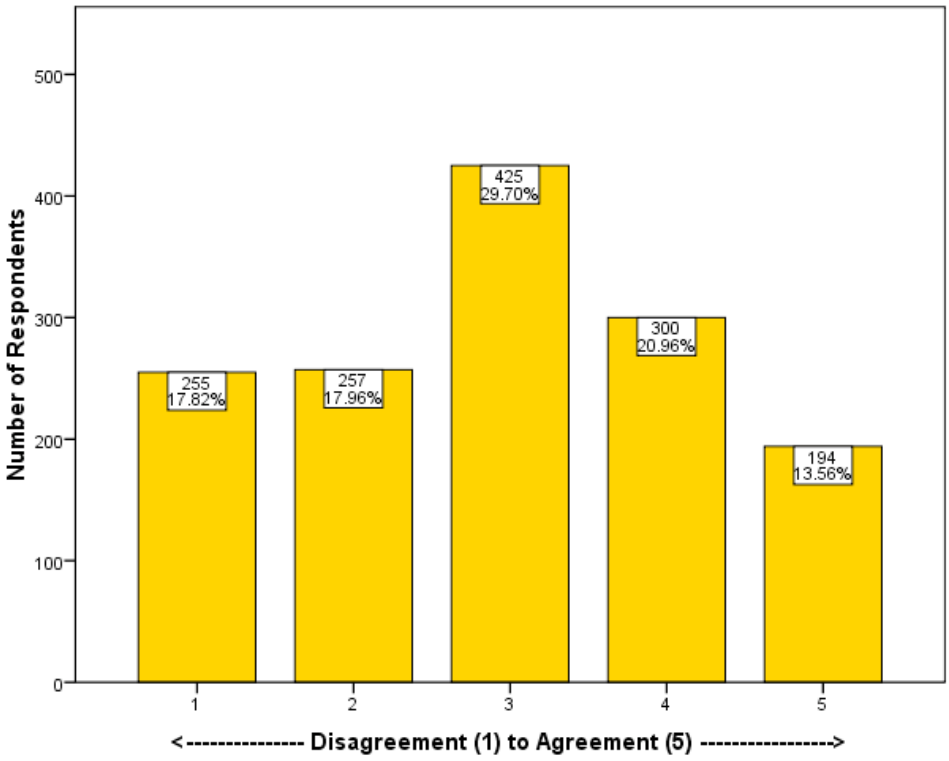
Will power is the ability of an individual to control and direct behavior in accordance with chosen goals and values. It involves determination, resourcefulness, and responsibility for achievement. Overall, respondents appear to have the will power to achieve the goals they set for themselves and their businesses.

Figure 5.14. Ability to Achieve Set Goals



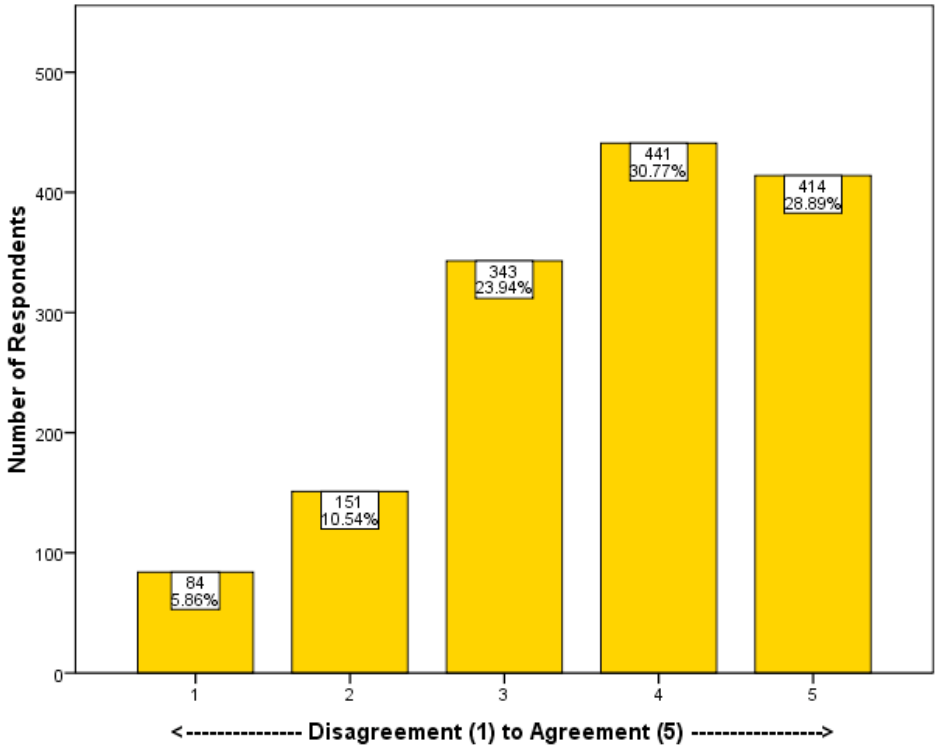
Few people outside of farming or ranching completely understand how dynamic a business it is. A successful operator needs to be creative and innovative to compete for a share of today's marketplace. Researchers hypothesized that farm operators would be on the cutting edge of innovation; however, that is not the case. Figure 5.15 shows that many respondents (35.8 percent) tended to strongly disagree or disagree with the statement: "I am always one of the first in my industry to try new technologies or production strategies." The balance of respondents agreed or strongly agreed (34.5 percent) or were ambivalent to it (29.7 percent).

Figure 5.15. On the Cutting Edge of Technology



Farm operators are mostly confident in their abilities to deal with business changes, though not with the strength of confidence reported in their abilities to run their businesses. It is unusual for all plans and goals to come together as envisioned. Changes in the business environment and market place, plus interrelations with employees and family members, require the business operator to be flexible and persistent.

Figure 5.16. Confidence in Dealing with Business Change



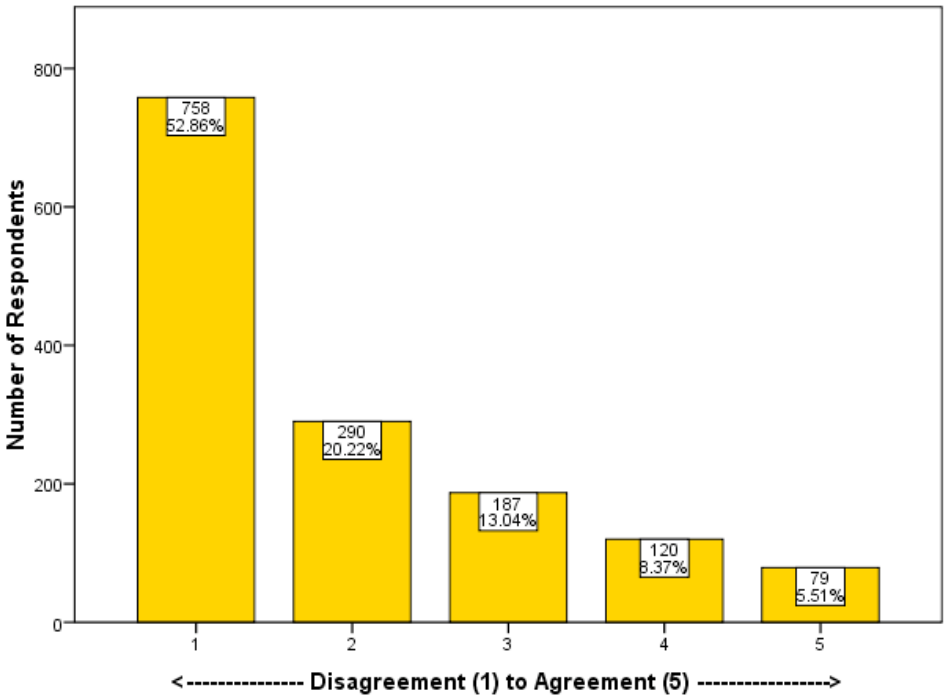
Most farmers and ranchers have the following management goals:

- To produce a high-quality product
- To obtain optimum income from the business
- To experience the lifestyle produced by the family business

Though most operators would say "Yes" to all three, research with Australian farmers indicates that certain management values influence the types of decisions made in the agricultural operation. There are three types of management styles:

- Dedicated Producer
- Flexible Strategist
- Resource Steward

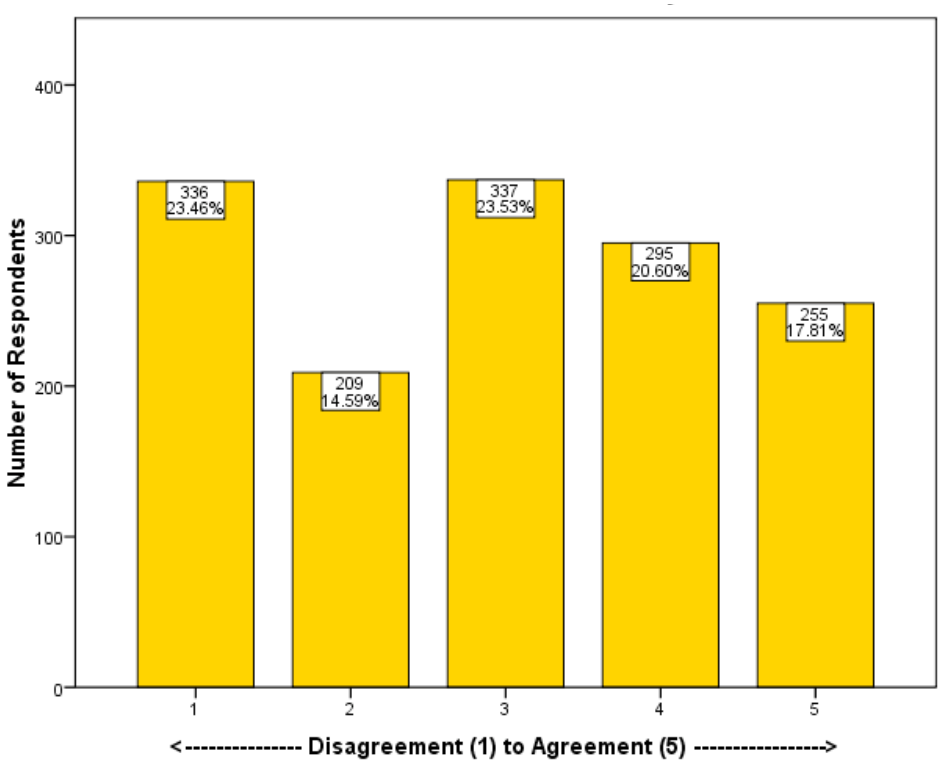
Figure 5.17. No Joy in the Work of the Business



The dedicated producer expresses a strong desire to produce the best quality product and strongly disagrees with the idea that there is no joy in the work of the business. He or she thrives on farm work.

Differences in management styles between flexible strategists and dedicated producers are apparent in the ways in which flexible strategists talk about finding a balance in their lives. While dedicated producers are focused almost exclusively on business, flexible strategists seek to balance business and family life by putting a moderate effort into the business and taking time for family and personal activities. A flexible strategist will strongly disagree with the statement: "Business tasks must come before family/personal time." Figure 5.18 shows that there were as many respondents who strongly disagreed or disagreed (38.1 percent) with this statement as those who agreed or strongly agreed (38.4 percent).

Figure 5.18. Business Tasks Come Before Family



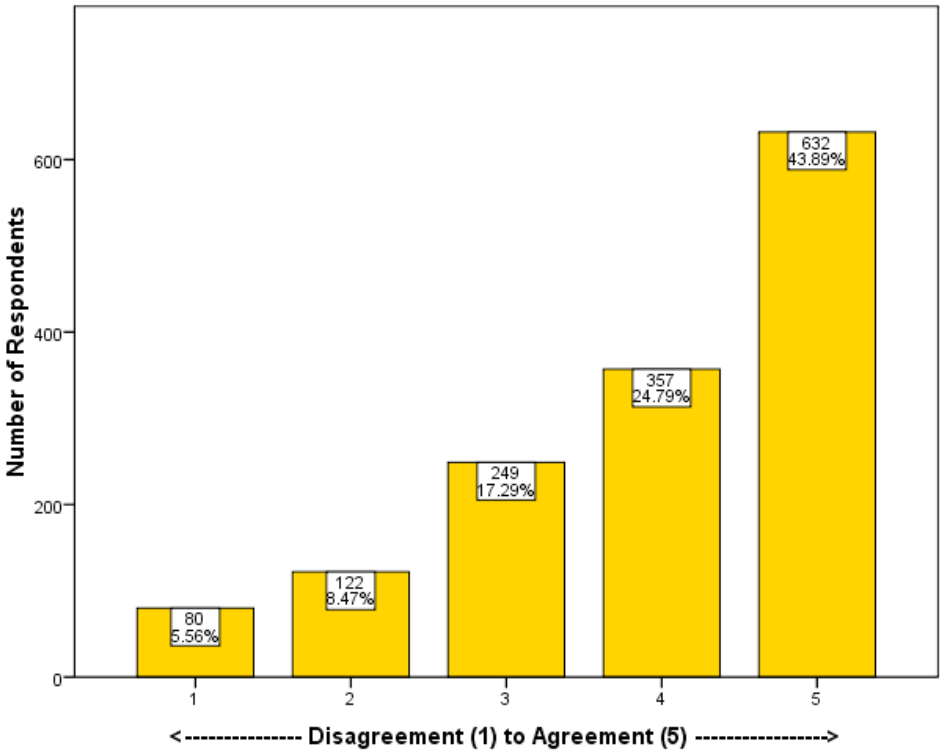
Respondents were asked if they disagreed or agreed with the statement: "This business will fail if I am not able to do the work." Because a dedicated producer is strongly committed to the business and is actively involved in the day-to-day work, he or she strongly agrees with this statement. A dedicated producer believes the success of the operation is dependent upon personal involvement. Slightly over one-half of the RFV Survey respondents strongly agreed or agreed with this statement. This response correlates positively with previous statements that looked at operator ability and optimism about the future; however, a sizable percentage of respondents (35.1 percent) strongly disagreed or disagreed with this statement.

Figure 5.19. Success Dependent upon Personal Involvement

Figure 5.20 depicts the response of farm managers to the statement: "Today's ranchers and farmers are at the mercy of outside forces, so the best you can do is to adjust to the situation." A flexible strategist disagrees with this statement. This person believes he or she has control over the direction of the business and has little patience with those who blame external forces for lack of success.

The majority of the operators in the RFV Survey strongly agreed or agreed with this statement. This response contradicts an earlier statement in which respondents said they believe success in the business is driven by their own abilities rather than relying on others. Most probably, respondents interpreted "outside forces" to be regulatory, environmental, political, or other forces outside their control.

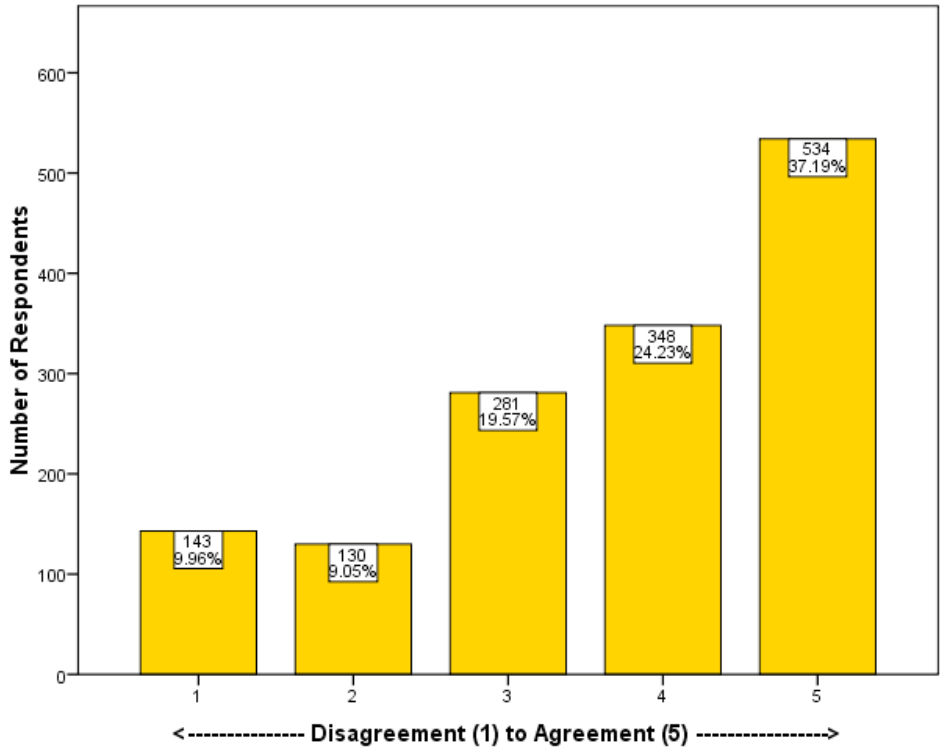
Figure 5.20. At the Mercy of Outside Forces



The resource steward is sensitive to the environment because it provides the quality of life he or she enjoys. Figure 5.21 shows the majority of respondents either agreed or strongly agreed that: "Ranchers and farmers today must be sensitive to the environment by reducing the use of agricultural chemicals on their land."

Since most operators are involved in ranching or farming because they believe working close to nature is rewarding, this answer was expected. It is worth noting, however, that 20 percent neither disagreed nor agreed with this statement and 10 percent disagreed or strongly disagreed.

Figure 5.21. Environmentally Sensitive



Summary – Chapter 5

- Making a profit was the most frequently stated reason for engaging in rural family enterprises.
- Working close to nature is a major reason for engaging in agricultural operations.
- Respondents overwhelmingly expect to manage their property until they can no longer do the work.
- Production risk is the most important risk faced by these managers.
- Marketing risk, along with financial risk, showed the greatest variability by respondents.
- Respondents ranked legal and human risk management as the least important.
- Respondents appear very comfortable in handling the uncertainty in the family business environment.
- Respondents in this survey strongly believe in their ability to create success for their businesses.
- Respondents vary a great deal in their attitudes about balancing work and personal time.
- Respondents are quite optimistic overall.
- Respondents indicated they possess an attitude of success.
- Respondents feel they have the will power necessary to achieve the goals they set for themselves and their businesses.
- Respondents do not necessarily view themselves on the cutting edge of technology.
- Respondents are mostly confident in their abilities to deal with business changes.
- Respondents strongly disagreed with the statement: "The work of the business needs to be done but there is no great joy in it."
- Respondents indicated they struggle to balance work and family.
- Respondents struggle with involving others in their businesses.
- Respondents strongly agreed with the statement: "Today's ranchers and farmers are at the mercy of outside forces so the best you can do is to adjust to the situation."
- Respondents strongly agreed with the statement: "Ranchers and farmers today must be sensitive to the environment by reducing the use of agricultural chemicals on their land."

CHAPTER 6

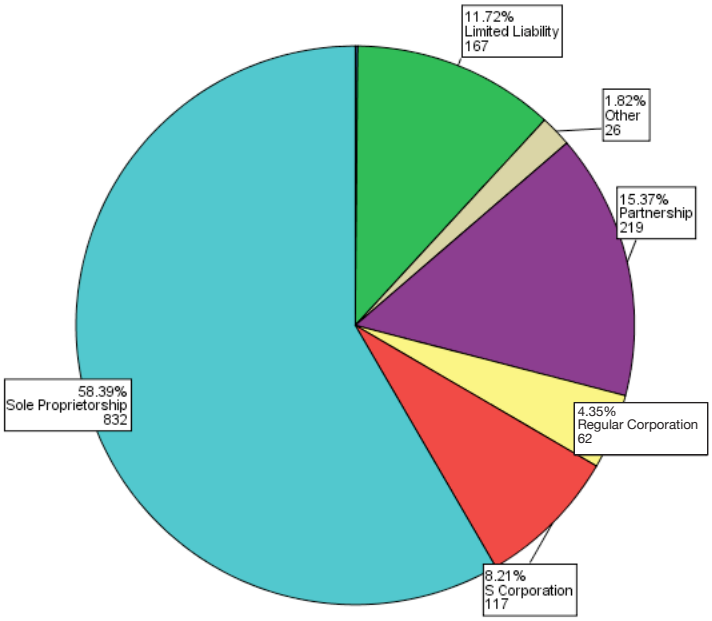
Income

By definition, a farm is "any place from which $1,000 or more of agricultural products were produced or sold, or normally would have been sold during a particular year" (NASS, 2007). Federal farm program payments and payments on land enrolled in the Conservation Reserve Program (CRP) or other similar programs are regarded as sales for definitional purposes.

To enhance Cooperative Extension's ability to meet the educational needs of today's farmers and ranchers, it is critical to know income and financial management information, the size of the operation, and the importance of farm income as a part of total household income. It is also helpful to know the enterprises, employees, sources of capital, and marketing strategies associated with farm and ranch operations.

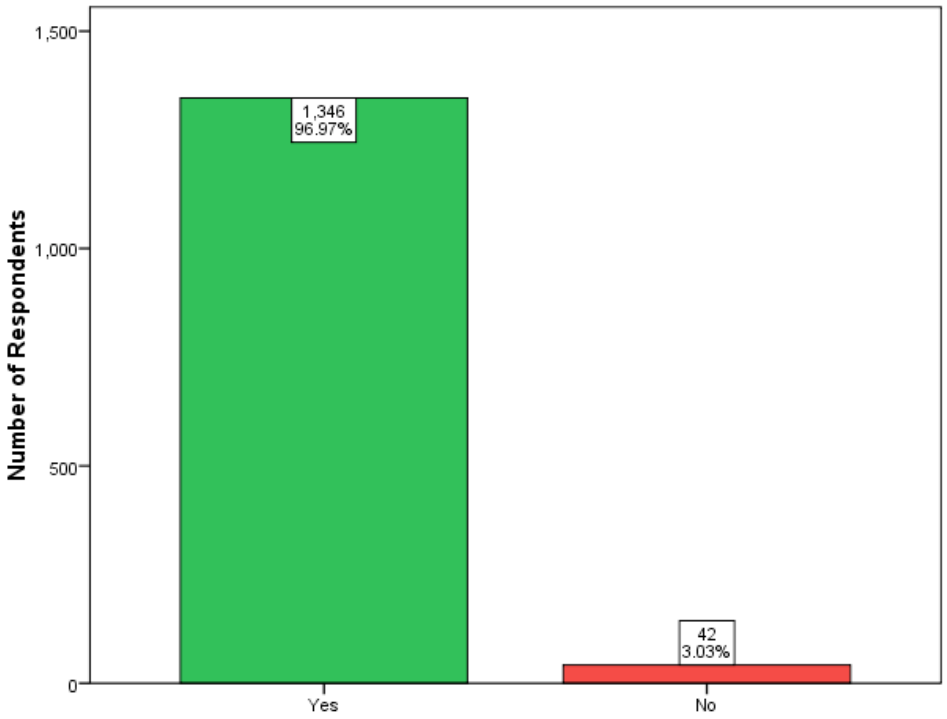
Farmers and ranchers have a myriad of available legal structures to match their business practices with financial, legal, estate planning, and/or other needs. As expected, there is some diversity in the legal structures selected by farm and ranch owners. More than half of the RFV survey respondents reported they conduct business as sole proprietorships (58.4 percent). Partnerships were the second most widely used business type, with limited liability entities reported as the third most widely used business structure. Other business types (S Corporations, regular corporations, etc.) accounted for a small percentage of business structures used by respondents.

Figure 6.1. Description of Business Type



An overwhelming number of the RFV Survey respondents (97 percent) reported their agricultural operations were family-owned or closely-held businesses. This means the operations are corporations owned and managed by a small number of people and not traded publicly.

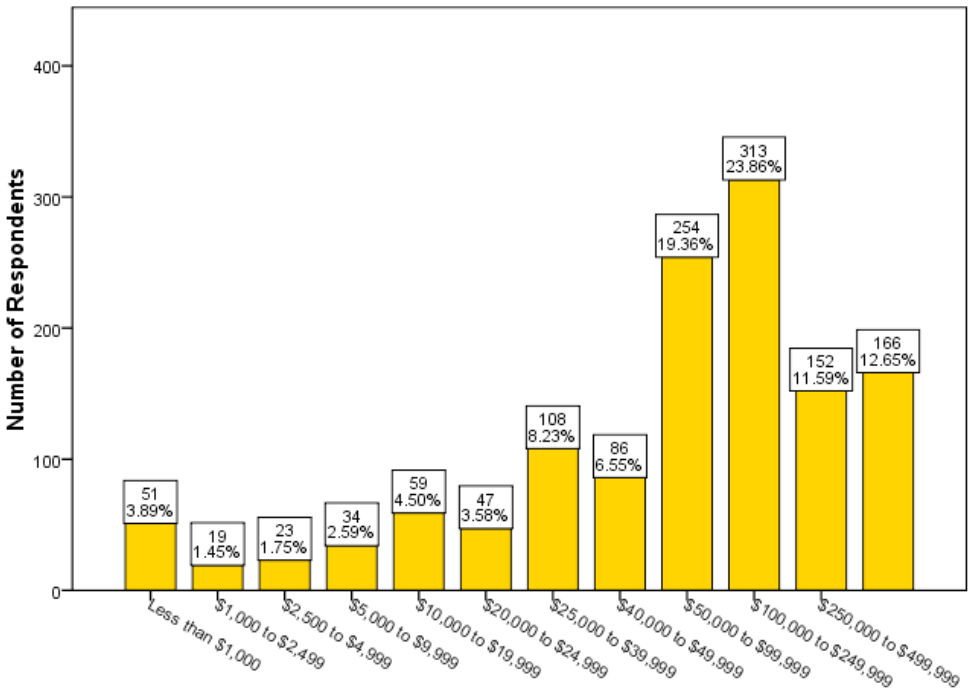
Figure 6.2. Family-Owned or Closely-Held Business



The size of a business is generally measured by the gross revenues received annually, typically reported on IRS Form 1040 Schedule F. There were 1,312 responses to the survey question pertaining to gross income received in 2008, of which 885 (67.5 percent) were in the targeted population reporting gross income exceeding $50,000.

Within the targeted population, 35.4 percent (313 responses) indicated annual sales between $100,000 and $249,999. An almost equal number of responses were in the $250,000 to $499,999 and $500,000 or more categories. Although the survey targeted agricultural producers with gross agricultural sales of $50,000 or more, one-third of the respondents indicated gross agricultural sales of less than $50,000 in 2008.

Figure 6.3. Farm/Ranch Size Based on Gross Income



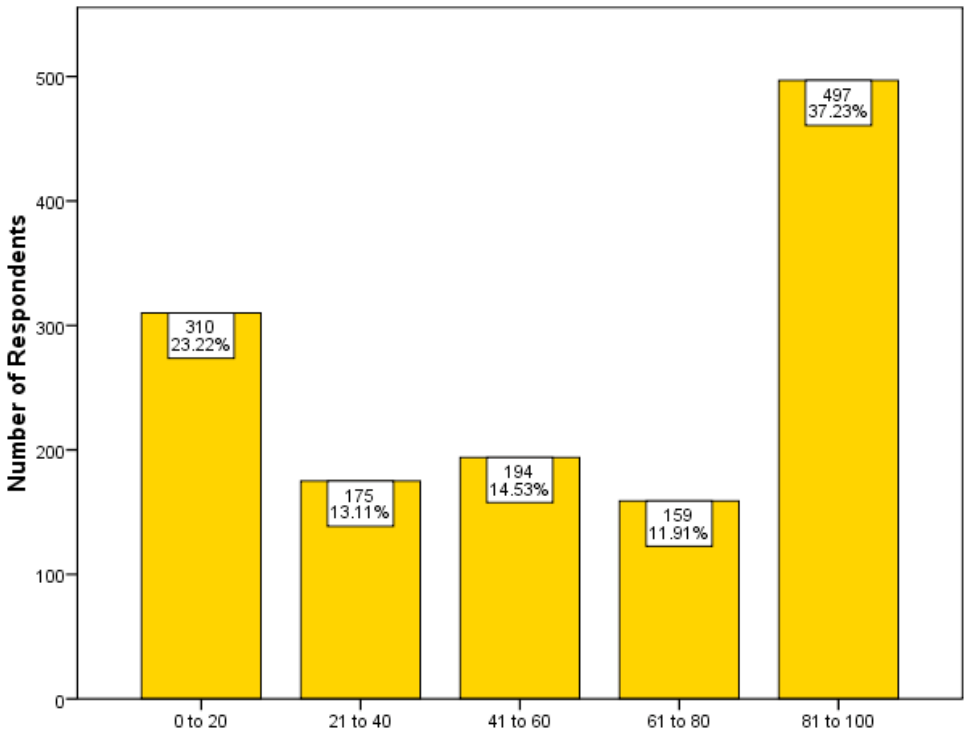
Because most agricultural operations across Wyoming, Colorado, and Arizona are family-owned or closely-held corporations, they must generate sufficient profits to provide income to the families involved. Survey respondents most often indicated that the farm or ranch provided an income for one family. The number of households sharing net farm profits of the operations ranged from 1 to 18, with an average of 1.6.

Table 6.1. Number of Households Sharing the 2008 Net Farm Income from the Property

		Number
N	Valid	1406
	Missing	57
Mean		1.64
Median		1.00
Mode		1
Std. Deviation		1.309
Variance		1.714
Minimum		0
Maximum		18
Sum		2310

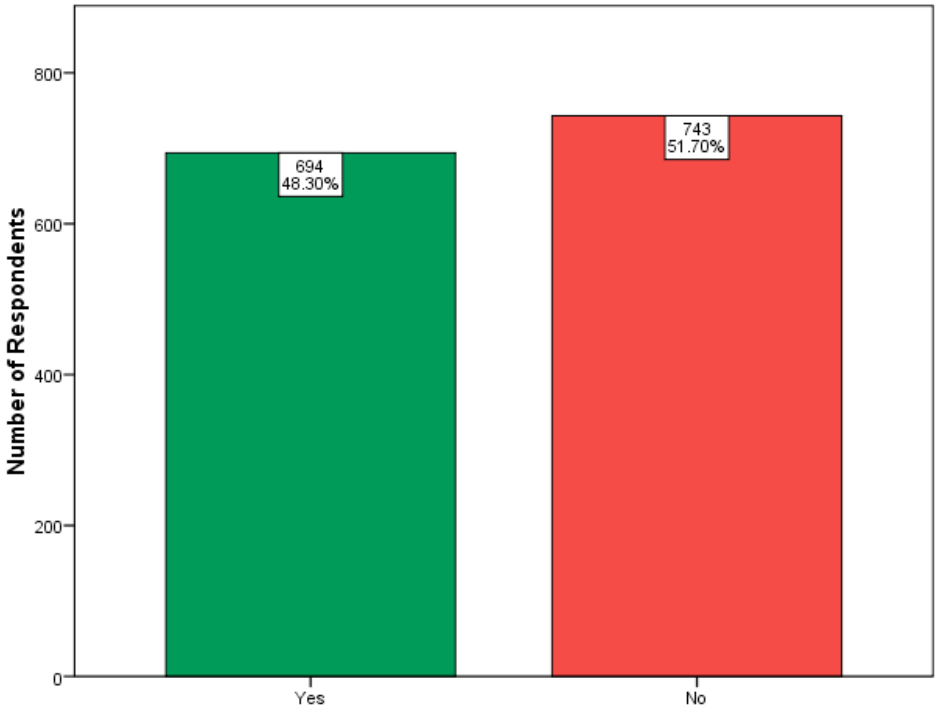
Many full-time farmers and ranchers receive a large portion of their total household income from their agricultural operations. Figure 6.4 shows that 37.2 percent of respondents have at least 81 percent of their household income generated from agricultural sales. Conversely, almost one-quarter of the survey respondents indicated that their agricultural operations provide less than 20 percent of their household income. The remaining 40 percent of survey respondents were almost equally divided into three other ranges: 21 to 40 percent, 41 to 60 percent, and 61 to 80 percent.

Figure 6.4. Percentage of Household Income from Agricultural Operations



Hired employees, including paid family members, are particularly critical to agricultural enterprises. The number of RFV Survey respondents who hire paid employees for their operations is almost equal to the number of respondents who do not hire paid employees. While the almost-equal split might be surprising, a larger number of "No" responses (no paid employees on the operation) was expected, due, in part, to the 60 percent of respondents reporting their operations were structured as sole proprietorships.

Figure 6.5. Operations with Paid Employees (Including Family Members)



Of the 694 survey respondents (48.3 percent) who reported having paid employees (including family members) in 2008, most indicated they paid one person. The average indicated was 5.3 and the median was 2. The greatest number of paid employees reported was 100.

Table 6.2. Number of Paid Employees in 2008 (Including Family Members)

		Number
N	Valid	683
	Missing	780
Mean		5.31
Median		2.00
Mode		1
Std. Deviation		10.714
Variance		114.789
Minimum		1
Maximum		100
Sum		3627

Farming and ranching operations in Wyoming, Colorado, and Arizona have a wide variety of enterprises. Not quite three-quarters (71.4 percent) of farms indicated their income was generated by three primary livestock and crop enterprises: beef cattle, grain and oilseeds, and hay farming. Beef cattle was, by far, the most common source of income for RFV Survey respondents. It was the primary source of income in 2008 for 44.9 percent of the operations. Grain and oilseed farming and hay production were the next most frequently reported sources of income, representing the primary source of income on 13.8 percent and 12.7 percent, respectively.

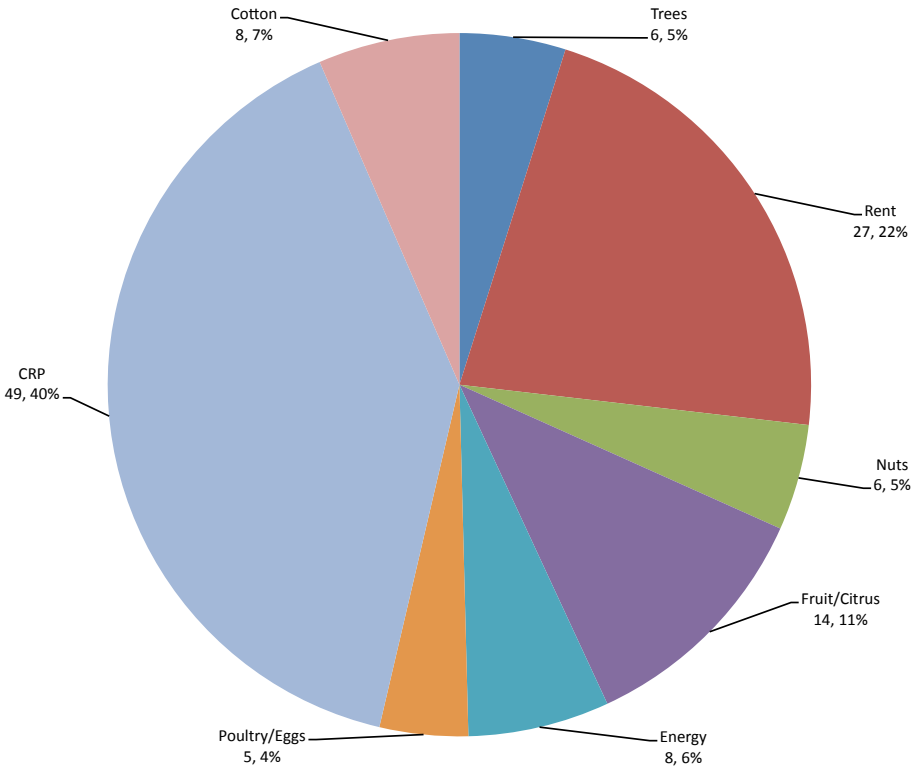
Table 6.3. Primary Sources of Income in 2008

	Respondents
Beef cattle	651
Grain & oilseed farming	200
Hay farming	184
Other crop farming	35
Greenhouse, nursery, floriculture	34
Vegetable & melon farming	27
Dairy cattle & milk production	23
Sheep & goat production	20
Aquaculture & other animal production	20
Specialty products	20
Cattle feedlots	10
Tourism & recreation	10
Hunting & fishing	8
Hog & pig production	2
Other	205

Those farms and ranches reporting income in the "Other" category listed CRP payments as the primary source of income on 49 operations (3 percent of all responses). This number exceeds that reported for all farm enterprises, except the three primary sources of income.

When questioned about primary sources of income, 123 respondents marked the "Other" category, indicating the primary source of income for their operations in 2008 was not from one of the listed categories. Figure 6.6 shows the other primary sources of agricultural income listed by respondents.

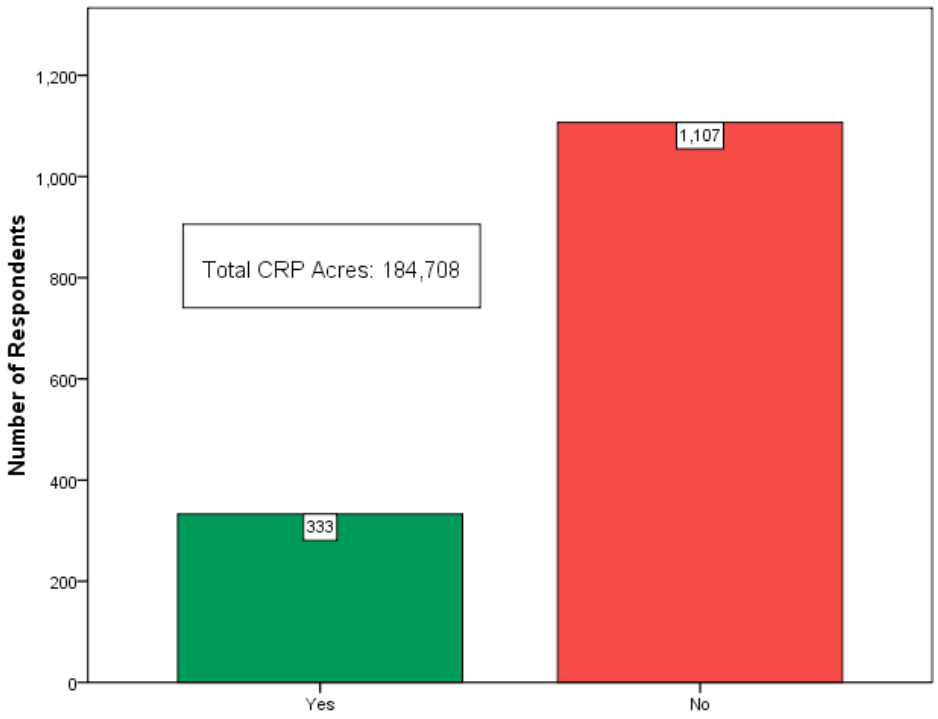
Figure 6.6. Other Primary Sources of Income



Only 333 of the 1,440 individuals who responded to this question indicated they had land enrolled in the CRP. The majority of respondents, 1,107, reported no CRP acreage.

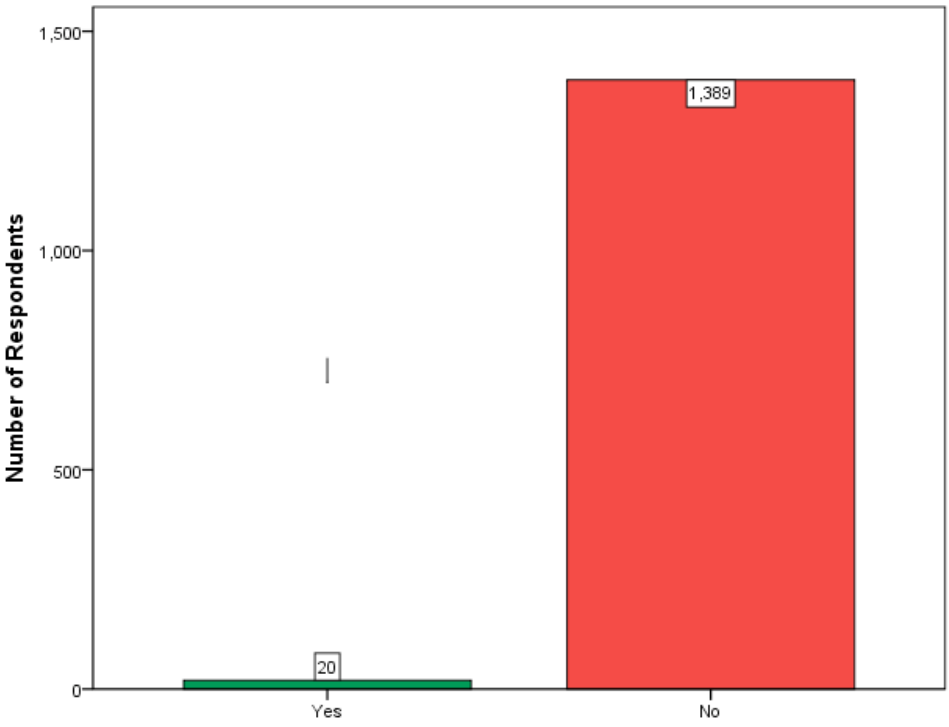
The 252 operators who indicated the actual number of acres enrolled reported a total of 184,708 acres. Operators most commonly reported 640 acres, with an average of 732.9 acres per farm. Acreages reported ranged from only 1 acre to 6,700 acres.

Figure 6.7. Previously Applied to Enroll Land in CRP



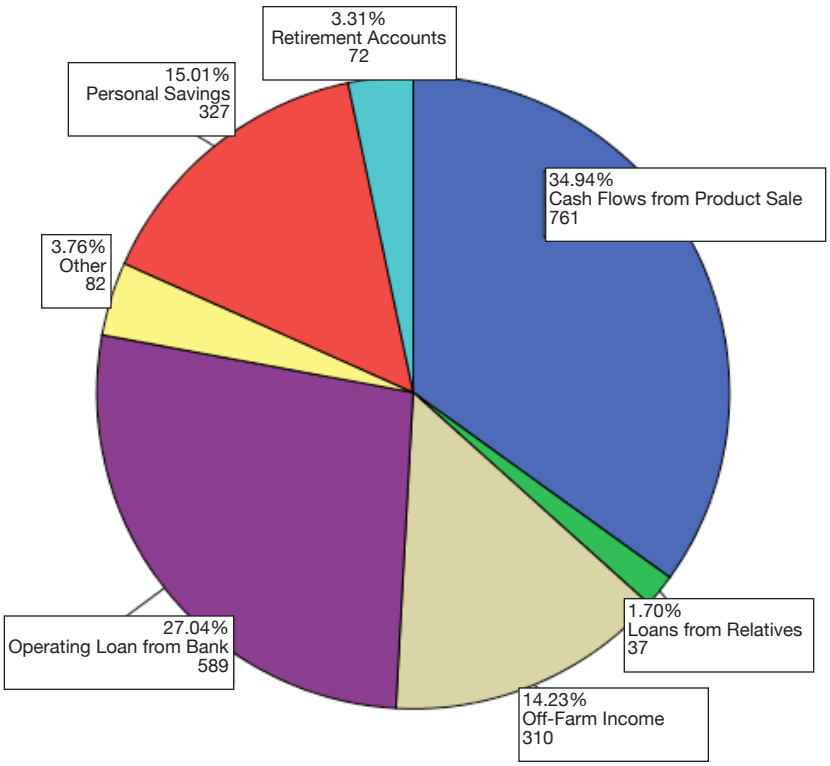
Given the current interest in organic, all natural, and chemical-free products, survey recipients were asked whether they produced any of these types of products or others that might represent a specialty market. Almost all survey respondents reported producing no crops or animals that might represent a specialty market. Figure 6.8 shows that a total of 1,409 individuals responded to this question, and only 20 respondents (1.4 percent) indicated they produce a specialty market product. The balance (98.6 percent) do not produce for any specialty market.

Figure 6.8. Specialty Crop Production



Agricultural businesses generally require some type of financing, especially if sales occur annually or irregularly. One-third of the agricultural operators who responded to this survey reported cash flows from product sales provided the business financing for the operation. Operating loans from a bank were the second greatest source of funding. Personal savings and retirement accounts provided the financing for 399 operations (18.3 percent). Off-farm income was the source of business financing for about 14.2 percent of survey respondents.

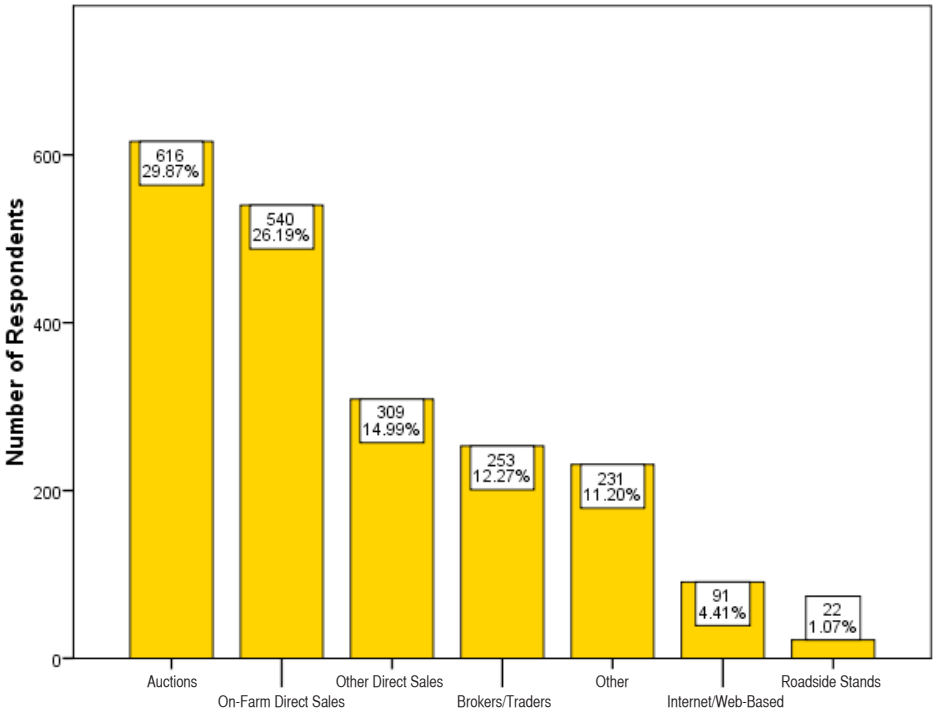
Figure 6.9. Source of Business Financing in 2008



Farms and ranches have a number of marketing methods available. Survey respondents reported that auctions were the most widely used marketing method. Because beef cattle are the primary enterprise for operations included in the RFV Survey, this was not surprising. Beef cattle are commonly sold via live and video auctions.

Figure 6.10 demonstrates that on-farm direct sales accounted for another 26.2 percent of the surveyed farms. Of the remaining 43.9 percent of those reporting their primary marketing method, 15 percent indicated use of other direct sales techniques and 12.3 percent reported marketing their product via brokers or traders.

Figure 6.10. Marketing Method



Summary – Chapter 6

- The majority of agricultural operations in Wyoming, Colorado, and Arizona are operated as sole proprietorships.
- These operations are almost always family-owned or closely-held businesses.
- One-third of the operators who responded to the survey have annual agricultural sales in the range of $100,000 to $249,999, while the other two-thirds are split about equally with sales from $250,000 to $499,999 and $500,000 or more.
- The income earned by these operations is typically realized by one family and provides more than 80 percent of the household income for more than one-third of the operations.
- About one-half of reporting operations indicated paying an employee. The most common number of employees was one.
- While farming and ranching operations in the three states have a variety of enterprises, about 71 percent of their income is generated by beef cattle, grain and oilseeds, and hay production.
- Respondents do not produce specialty products.
- Income from the CRP generates significant income for many operations.
- Cash flows from the regular sale of products and commodities and/or operating loans from a bank provide the necessary financing for more than one-half of the operations.
- Live and video auctions serve as the primary marketing methods for many farmers and ranchers.

CHAPTER 7

Resource Management

According to NASS statistics for the three states surveyed, farm and ranch sizes vary. Statistics collected in the 2007 Agricultural Census separated owned and leased lands used for agricultural production. Owned land totaled 67.1 million acres (WY=20,950,873 acres; CO=21,916,632; AZ=24,248,912), and leased land for the three states totaled 20.7 million acres (WY=9,218,653; CO=9,688,279; AZ=1,868,967 acres).

RFV Survey respondents were asked to describe the full extent of lands managed, including both acres owned and acres leased, and the land management practices they used. Together, these responses provide a better understanding of not only the total number of acres managed, but also the type of control rural property managers have over rural lands in their care.

Table 7.1 Owned and Leased Land

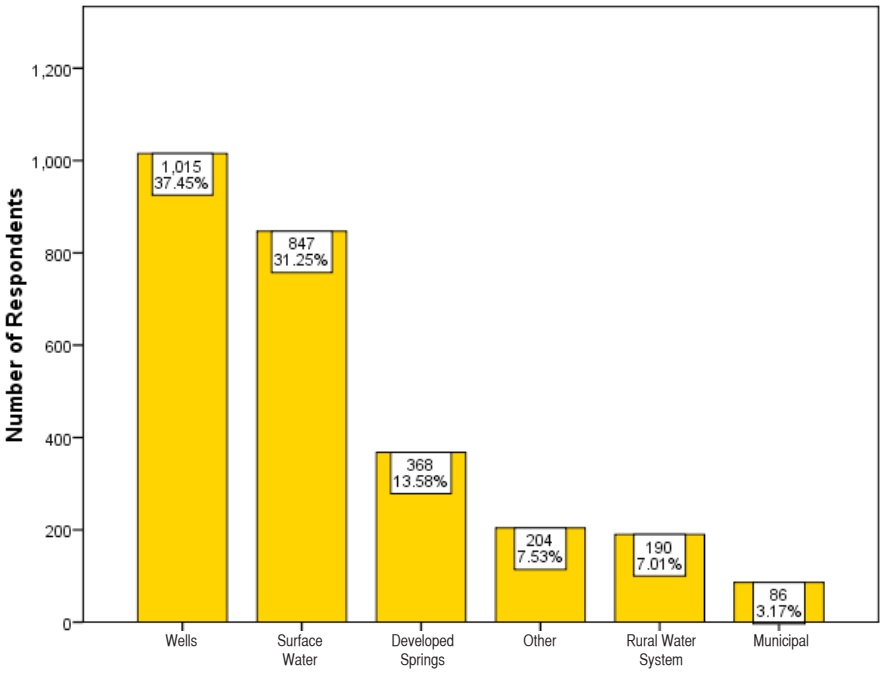
		Acres of Owned Land	Leased Land	Total Acres
N	Valid	1299	918	1373
	Missing	164	545	90
Mean		3123.8360	6381.2691	7166.0510
Median		882.0000	1130.0000	1800.0000
Mode		2000.00	2000.00	1000.00
Std. Deviation		8188.45435	18750.32726	20856.78051
Variance		6.705E7	3.516E8	4.350E8
Minimum		1.00	1.00	1.00
Maximum		160000.00	300000.00	460000.00
Sum		4057863.00	5858005.00	9838988.00

The most common number of owned acres reported was 2,000 (across 1,299 respondents). Values ranged from 1 to 160,000 acres, with an average of 3,124 acres (Table 7.1). Acres of reported leased land ranged from 1 to 300,000, with the most common response of 2,000 acres leased and an average of 6,381 acres. A total of 918 respondents or 62.8 percent reported leasing at least 1 acre of land.

In total, 1,373 operators reported managing from 1 to 460,000 acres (both owned and leased land) across the three states. The most commonly reported number of acres under management was 1,000 acres, with an average of 7,166 acres. Total acres managed across all states for all types of land totaled more than 9.8 million acres. This represents over 11 percent of the more than 87.8 million acres in farms and ranches across the three states (WY=30,169,526; CO=31,604,911; AZ=26,117,899 acres).

A second line of questioning attempted to discover the extent of water resources associated with the rural properties managed. While state-level statistics provide information on rural water resources, such data provide few insights about other characteristics of the operation. Survey questions focused on sources of water on all lands managed (owned and leased), surface water on neighboring properties, and irrigation practices used for pasture management.

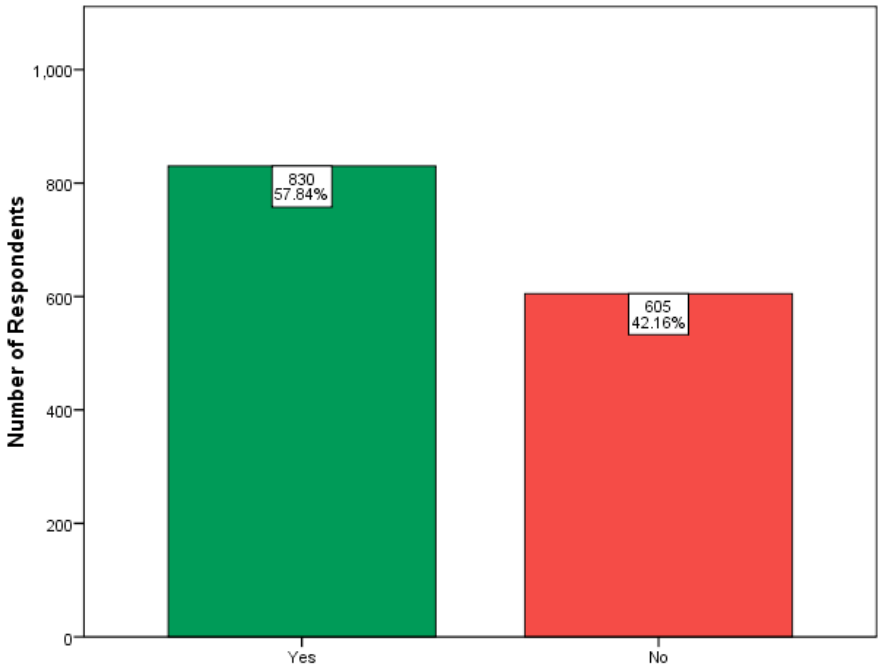
Figure 7.1. Water Sources



As the chart in Figure 7.1 reveals, 37.5 percent of respondents reported wells as the most common source of water for all managed lands. Surface water was the second most often reported source, with 31.3 percent of properties reporting. Developed springs were water sources for 13.6 percent of respondents. A total of 7 percent reported using rural water systems. Only 3.2 percent of operators had access to municipal water supplies, and 7.5 percent of respondents reported utilizing water supplies other than those listed. Alternative sources included canals, catchments, creeks, irrigation systems, hauled water, rain water, reservoirs, river water, methane water, solar pumps, springs, stock tanks, and windmills.

A total of 830 farms and ranches reported surface water on properties adjacent to their own. This number represents 57.8 percent of the 1,435 operators who responded.

Figure 7.2. Surface Water on Property



Respondents were also asked if they irrigated any pasture on their property and, if so, how many acres. Of the 1,433 operators who responded to this question, 34.5 percent indicated they irrigate some pasture. The majority of operators, 65.5 percent, indicated they do not currently irrigate any pasture.

Figure 7.3. Does the Operation Irrigate Any Pasture?

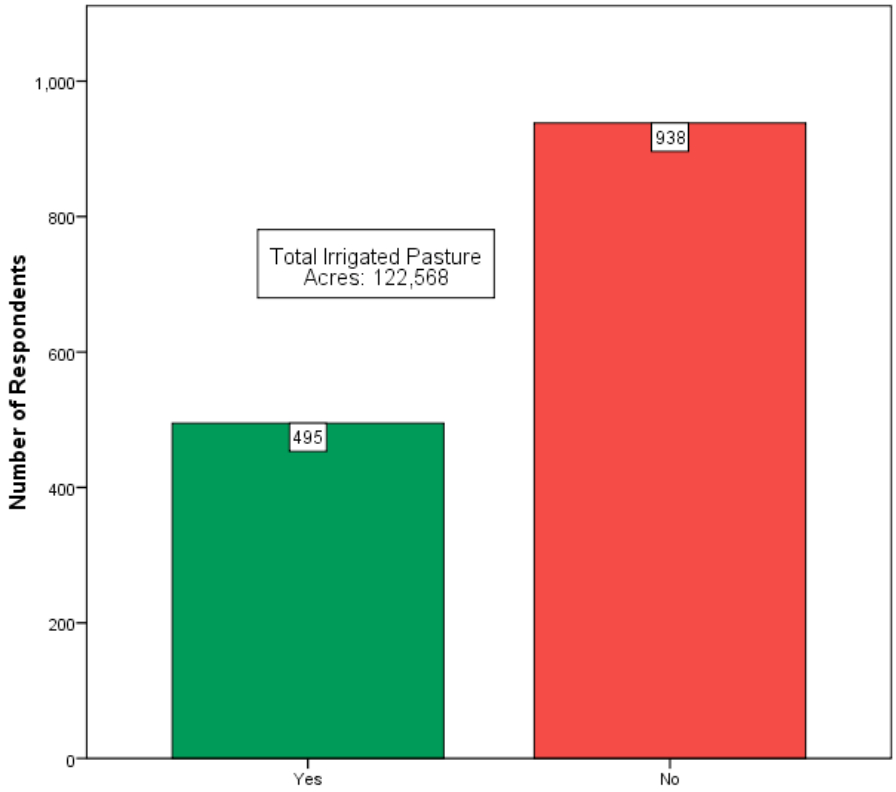


Table 7.2 shows an estimate of pasture acres irrigated. A total of 122,568 irrigated acres were reported, with the most common response being 200 acres per land owner and an average of 263.4 acres. Responses from 465 land managers ranged from 1 to 7,000 acres of irrigated pasture.

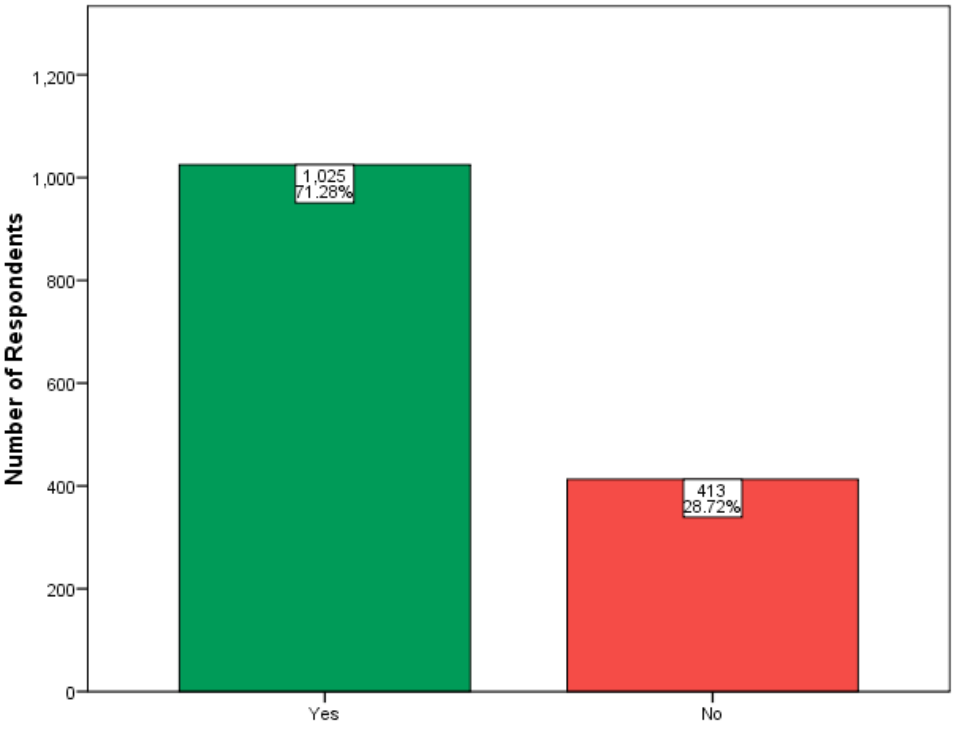
Table 7.2. Acres of Irrigated Pasture

		Irrigated Acres
N	Valid	465
	Missing	998
Mean		263.59
Median		120.00
Mode		200
Std. Deviation		561.260
Variance		315012.433
Minimum		1
Maximum		7000
Sum		122568

Surveyed operators were also asked about on-farm chemical management. Given the threat chemical mismanagement represents to rural water sources, it is essential to gain a better understanding of how these materials are currently handled. If a large number of land owners are using agricultural chemicals without adequate training, Cooperative Extension could provide education to directly reduce the incidence of mismanagement.

A total of 71.3 percent of the 1,438 operators who responded reported using chemicals to control weeds on their properties. Conversely, 28.7 percent reported no chemicals were used for weed control. Using the most commonly reported rural property size of 2,000 acres, 1,025 operators applying agricultural chemicals would impact over 2 million acres.

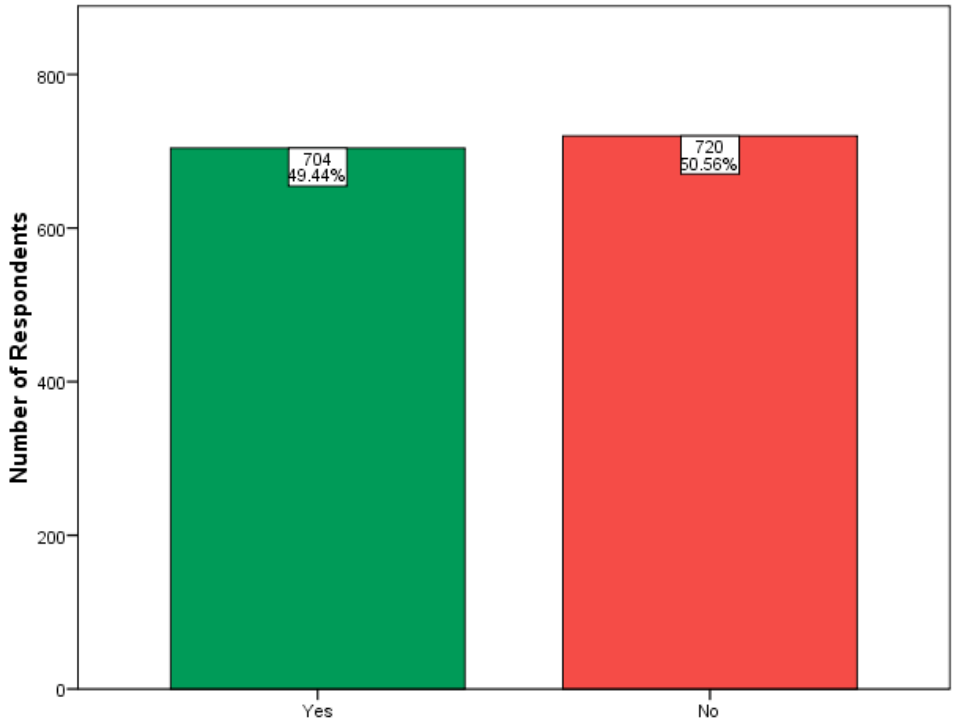
Figure 7.4. Chemicals Used for Weed Control



Chemical applicator licenses are generally required to obtain and apply agricultural chemicals in all three states. In total, 50.6 percent of the 1,424 respondents indicated they do not hold a current license, and 49.4 percent reported that they hold a current license. Of those who use chemicals for weed control, 641 respondents (45 percent) hold a license, while 373 (26.2 percent) reported they use chemicals without a license. A total of 28.8 percent (410) of those who said they use chemicals to control weeds chose not to indicate whether they held a current license or not.

These results indicate a majority of farmers and ranchers use agricultural chemicals to manage their properties. While

Figure 7.5. Current Chemical Applicator's License

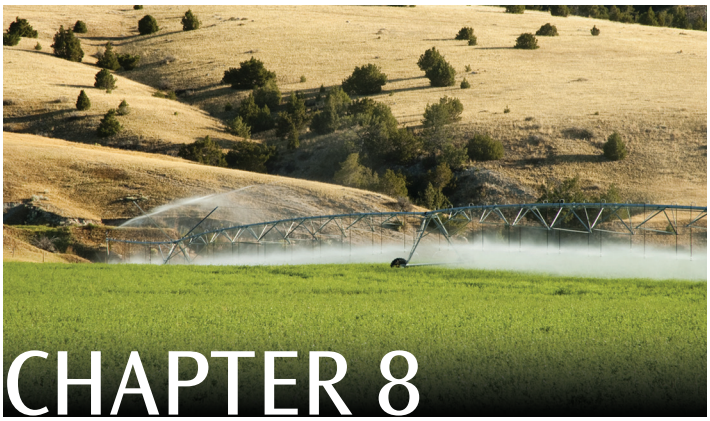


many operators hold chemical applicator licenses, a number of those individuals using chemicals reported not having a license. Perhaps this would not be as large of a concern if the property owner were controlling dandelions or thistles on a lawn, but the extent of chemical use across rural farm or ranch properties was not assessed by this survey and may be of interest in future survey efforts. It also should be pointed out that, given the size of the properties reporting in the RFV Survey, it is quite possible that many operators hire custom applicators to apply agricultural chemicals; therefore, the survey respondents themselves would not be required to hold a current chemical applicator's license.

Summary – Chapter 7

Proper resource management has become increasingly important during the last decade. Increasing urbanization and rural property ownership by individuals unfamiliar with land management issues place vulnerable rural lands at risk. The resource management section of the survey investigated three major areas of interest: land and enterprise management, water management, and on-farm chemical application.

- Survey results provided the following information for rural property owners across Wyoming, Colorado, and Arizona.
- Most operators own 2,000 acres, with an average of 3,124 acres.
- Most operators lease additional land, commonly about 2,000 acres per respondent, with an average of 6,381 acres.
- Wells are the most common source of water reported on rural properties.
- Surface water comes in second as a water source, and it was reported as existing on just over half of the neighboring rural properties.
- Less than half of the operators use some type of irrigation on their pastures, but when they do use it, they typically irrigate about 200 acres.
- A large percentage of respondents use agricultural chemicals for weed control on their properties (71.3 percent).
- Of those who use chemicals, more than half of respondents indicated they did not hold an applicator's license.



CHAPTER 8

Crop and Livestock Production

Respondents were asked whether or not their operations included any crops or cut hay in 2008. In response, they indicated the acreage of each listed crop and were instructed they could answer in more than one class. A total of 983 operators responded affirmatively to this question, which implies that of the 1,463 respondents, 67.2 percent produced a crop (Table 8.1).

For those farmers and ranchers responding, small grains, alfalfa, and hay dominate their acreages. The typical small grains producer operates on about 300 acres. The typical alfalfa producer produces 200 acres of alfalfa; the typical hay producer has about 100 acres.

Total small grains acreage was 187,269 acres, or 30.3 percent of reported crop acreage (618,728 acres). Alfalfa and hay acreage totaled a combined 259,964 acres, or 42 percent of reported crop acreage. Corn accounted for 15.3 percent of the crop acreage, and the typical corn acreage was 80 acres. The typical sunflower acreage was 2,000; the typical vegetable acreage was 1 acre.

A total of 117 responses were received in the "Other" category. These crops included nursery/greenhouse (such as bedding plants, container trees/plants/vegetables/flowers/shrubs, perennial plants, trees, and vegetable starts), 25; cotton, 24; sugar beets, 16; trees, 9 (may have been nursery, but no further information was provided); pecans, 4; sorghum for feed/silage, 4; cover crops or CRP, 3; fallow, 2; pistachios, 3; sod, 3; grapes, 2; herbs, 2; iris flowers, 2; grass seed, 2; potatoes, 2; safflower, 2; alfalfa seed, 1; quinoa, 1; lemons, 1; mushrooms, 1; onions, 1; pumpkins, 1; seed beans, 1; sprouts, 1; and wildflowers, 1. Acreage estimates were rarely provided by those marking "Other."

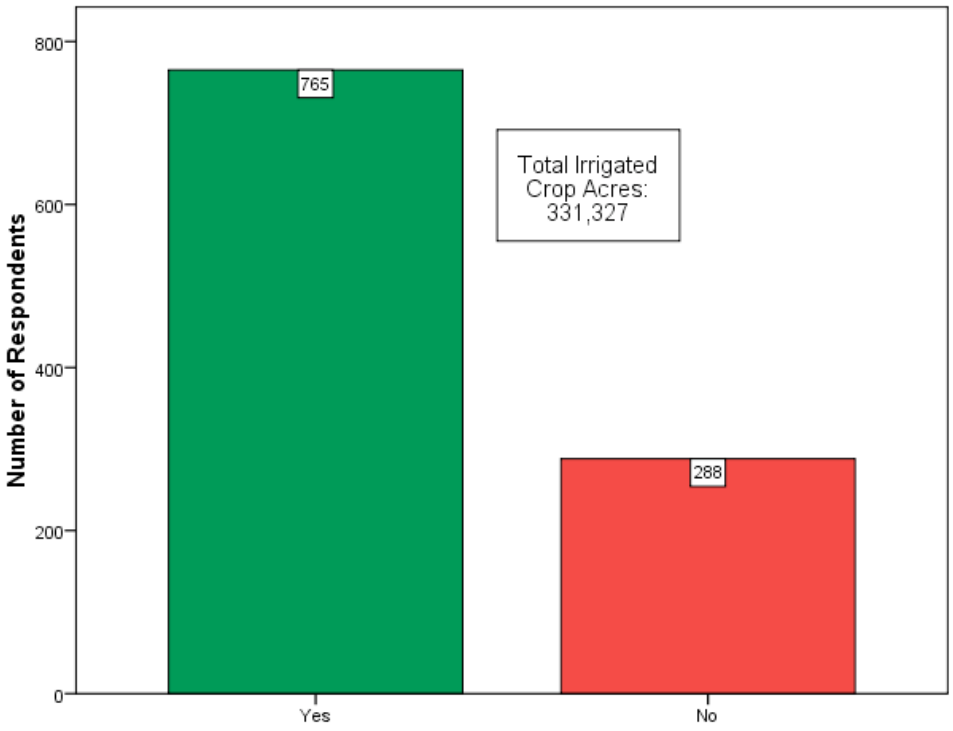
Table 8.1. Crops Grown in 2008

	Total Acres
Small grains	187269
Alfalfa & alfalfa mixture hay	150169
Mixed/other hay	109795
Corn	94872
Sunflowers	14444
Vegetables	12672
Dry beans	9338
Sorghum (grain)	6071
Fruits	4143
Soybeans	426
Other	29529

Clearly, small producers in Wyoming, Colorado, and Arizona use irrigation on their crops. Figure 8.1 shows that of the 1,053 operations reporting, 72.6 percent responded positively to the question and 27.4 responded negatively.

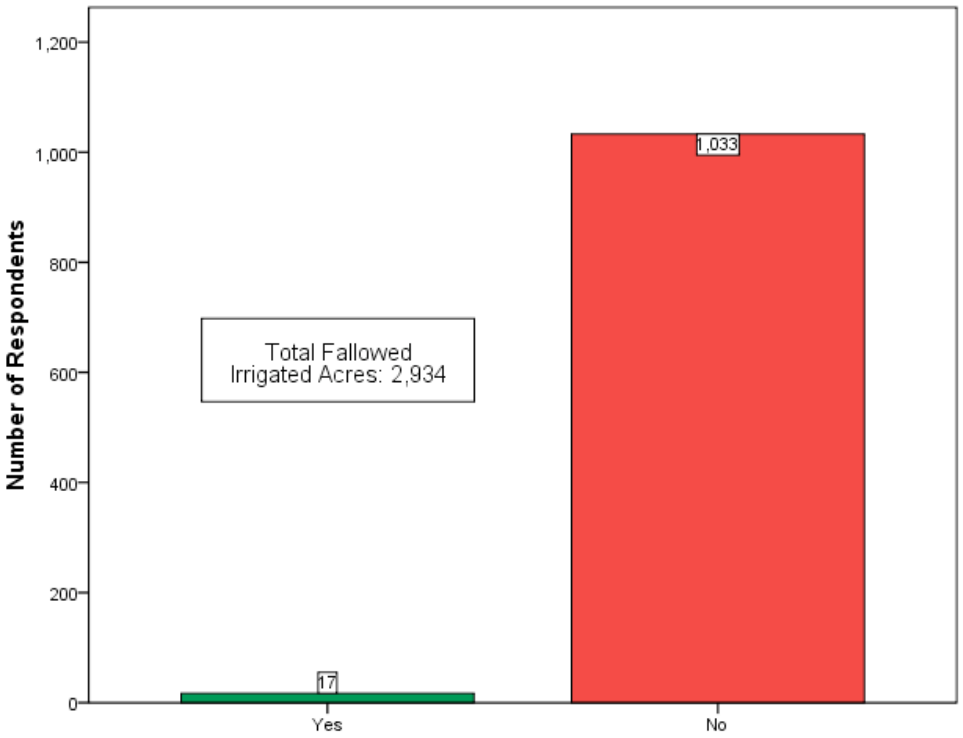
The most commonly reported irrigated acreage was 200 acres. The average acreage irrigated was 473, while the reported median was 250. The minimum and maximum responses were 1 and 5,912. The total number of irrigated acres reported by survey respondents was 331,327.

Figure 8.1. Does the Operation Irrigate Any of Its Crops?



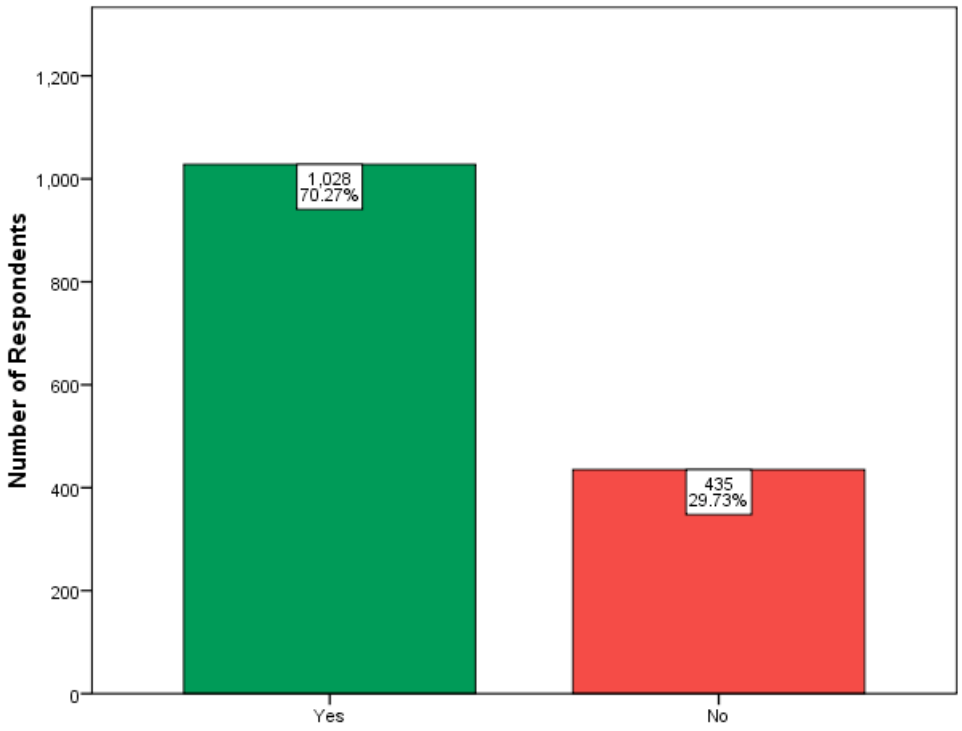
Leasing water from fallowed land was used by 17 of 1,050 respondents (1.6 percent) who reported crops in 2008. Of the 2,934 acres reported as fallow, the most common number of acres was 40, with an average of 173 and a median of 50 acres. Reported acreage ranged from 640 to 11 acres.

Figure 8.2. Does the Operation Fallow any Irrigated Land and Lease the Water?



Respondents were asked to complete Section V of the RFV Survey if they had any animals or poultry in 2008. Note that 1,028 producers raised animals and 995 reported raising crops. A total of 70.3 percent of respondents reported animals.

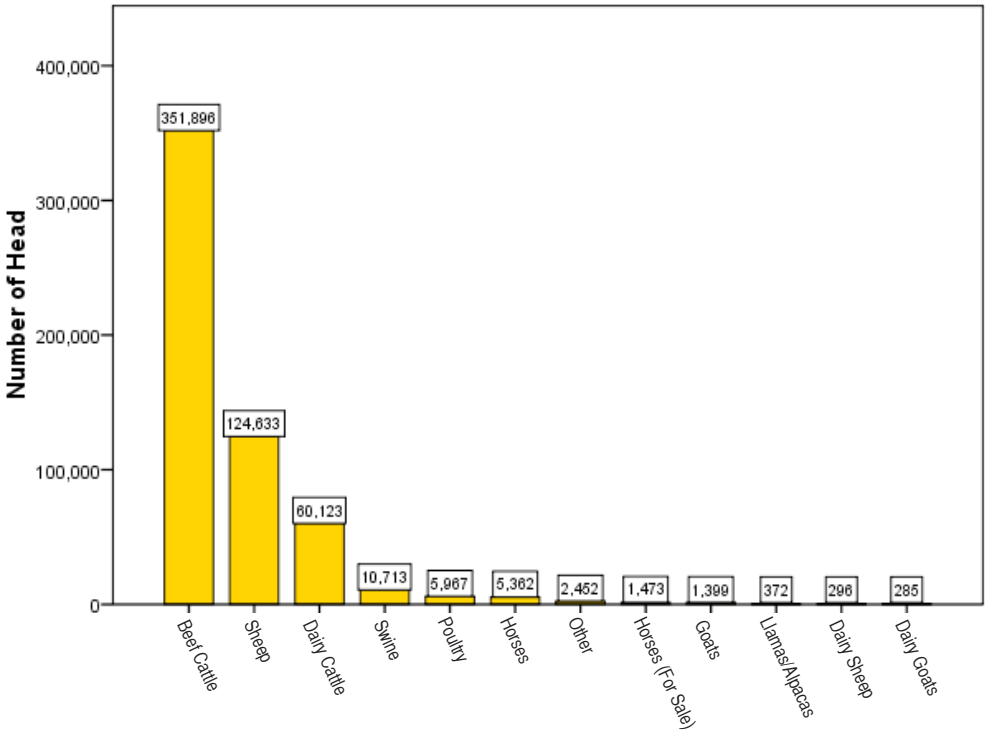
Figure 8.3. Animals on Property



To get a sense of the extent of animal enterprises managed, the survey provided a list of typical animal classes and space to write in the 2008 peak inventory number. Respondents could answer in more than one class.

Among respondents, beef cattle was by far the most populous class, with a total of 351,896 head. The most common herd size was 200 head, while the average reported was 397 head. Sheep and dairy cattle were the second and third most populous livestock types, followed distantly by poultry and horses for sale. A total of 623 respondents (60.6 percent of operators reporting livestock) indicated they held horses, but not for sale.

Figure 8.4. Animal Classes



In the "Other" category, respondents were able to write in the type of other livestock raised, as well as the number. Answers that appeared multiple times included roping steers, 6; buffalo, 4; fish, 3; mules, 2; and bees, 2. "Other" responses that appeared only once included deer, parrots, camel, elk, guard dogs, peacocks, pheasant, pygmy goats, rabbits, and tortoises.

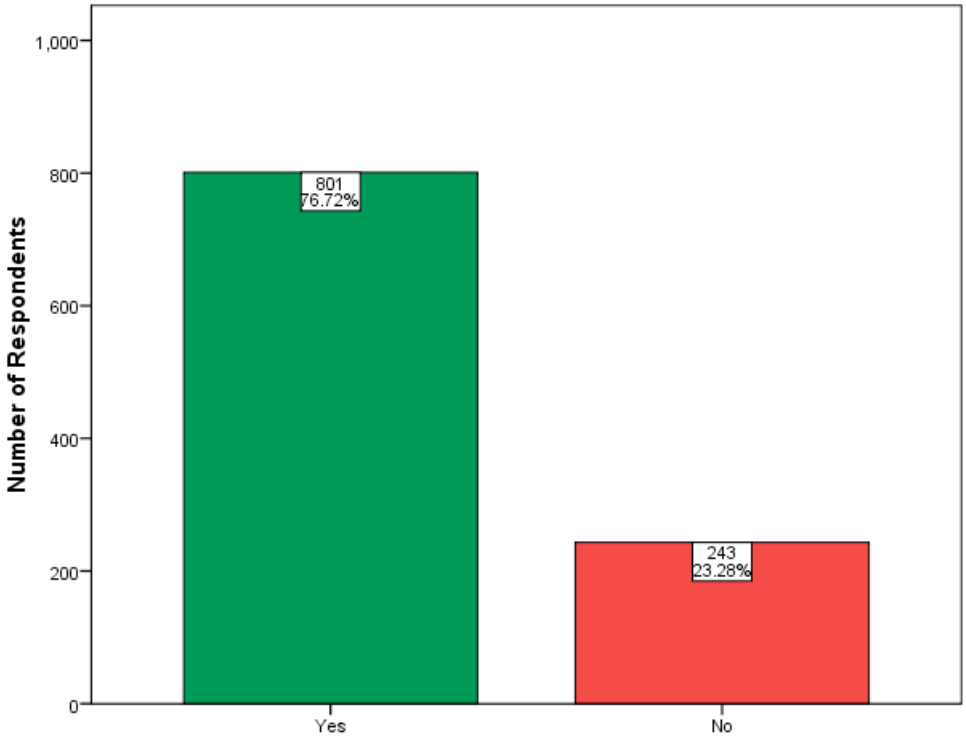
This grazing section of the RFV Survey is of particular interest to those who want to better understand the sophistication of graziers. Respondents most commonly reported grazing pastures for 12 months of the year. The reported average was 8 months per year, but responses ranged from 0 to 12, with a median of 8 months.

Table 8.2. Grazing Time (Months per Year)

		Months per Year
N	Valid	1037
	Missing	426
Mean		8.05
Median		8.00
Mode		12
Std. Deviation		3.620
Variance		13.105
Minimum		0
Maximum		12
Sum		8343

Overall, 801 of the 1,044 respondents (76.7 percent) indicated that an effort was made to rotate animals through at least two pastures. (Note that the response to this question was slightly higher than the 1,028 respondents who reported having livestock.)

Figure 8.5. Grazing Systems Used



Graziers most commonly reported using 3 pastures in their rotation. Table 8.3 shows that the reported average was 7.7 with a range of 2 to 50 and a median of 5 pastures. Keep in mind the mode for the number of acres managed (owned and leased) was 1,000 acres. Therefore, given that the mode number of pastures managed was reported as 3, this would imply 333-acre pastures on the typical livestock operation.

Table 8.3. Number of Pastures Used in a Grazing Management System

		Number of Pastures
N	Valid	747
	Missing	716
Mean		7.74
Median		5.00
Mode		3
Std. Deviation		6.976
Variance		48.668
Minimum		2
Maximum		50
Sum		5784

An Animal Unit Month (AUM) is the amount of forage required by one animal unit (AU) for one month. One animal unit is defined as a 1,000 lb. (450 kg) beef cow with or without a nursing calf with a daily requirement of 26 lb. (11.8 kg) of dry matter. Therefore, an AUM is equal to 780 lb. (355 kg) of dry matter (30 days x 26 lb. daily forage requirement).

Many livestock producers use some public lands for animal production, including 38.5 percent of RFV Survey respondents. For those who said they use public lands, a fill-in-the-blank follow-up asked the number of AUMs utilized from public land sources. Responses ranged from 1 to 15,785, with the most common response being 100 AUMs. The average was reported as 780 AUMs and the median as 200 AUMs. (The number of responses to this question was low; there were only 304 responses from the 1,028 operators who reported livestock.)

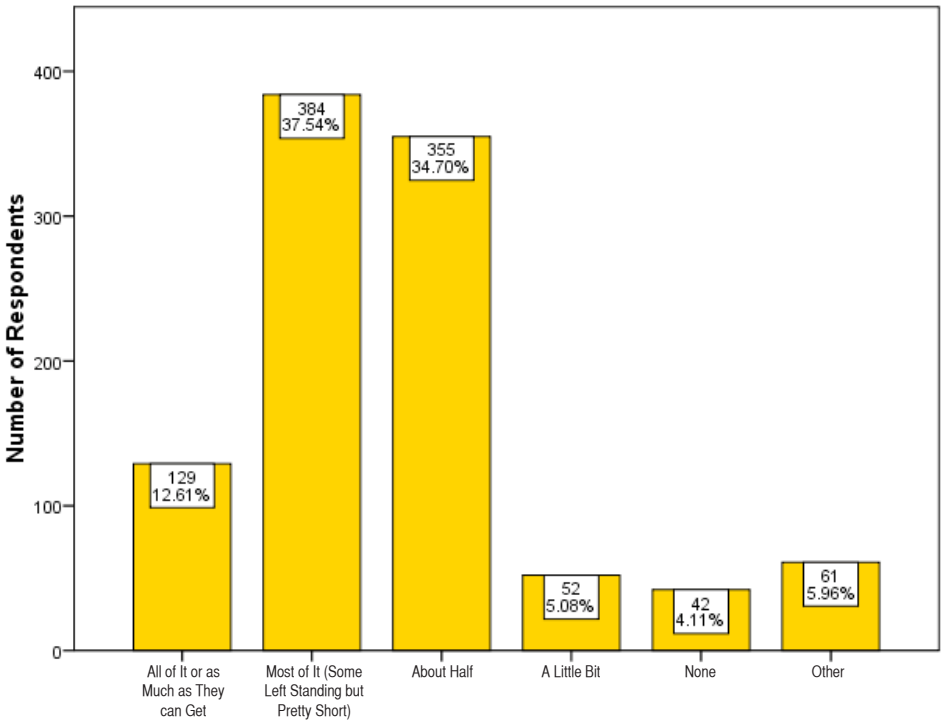
Table 8.4. Number of Animal Unit Months (AUMs) of Public Land Grazing Rights

		Number of AUMs
N	Valid	304
	Missing	1159
Mean		779.95
Median		200.00
Mode		100
Std. Deviation		1987.353
Variance		3949572.582
Minimum		1
Maximum		15785
Sum		237105

Most livestock managers indicate a fairly aggressive grazing strategy. Of the 1,023 responses to this question, 12.6 percent indicated they graze all or as much of the available forage as they can get, while the majority (37.5 percent) responded by stating they graze most of the available forage, but if some is left standing, it's pretty short. A significant number (34.7 percent) indicated they use about half of the forage.

Respondents indicating "Other" for their grazing strategy typically reported the pasture would be grazed depending upon the weather, conditions, or time of year. Some said the pasture had not been grazed recently due to drought conditions. Some respondents provided specific percentages, and the distribution seemed to mimic overall distribution patterns.

Figure 8.6. Annual Pasture Eaten by Livestock



Respondents tend to raise their own feed, with a total of 636 of 1,019 operators responding affirmatively (62.4 percent).

Figure 8.7. Source of Most Animal Feeds

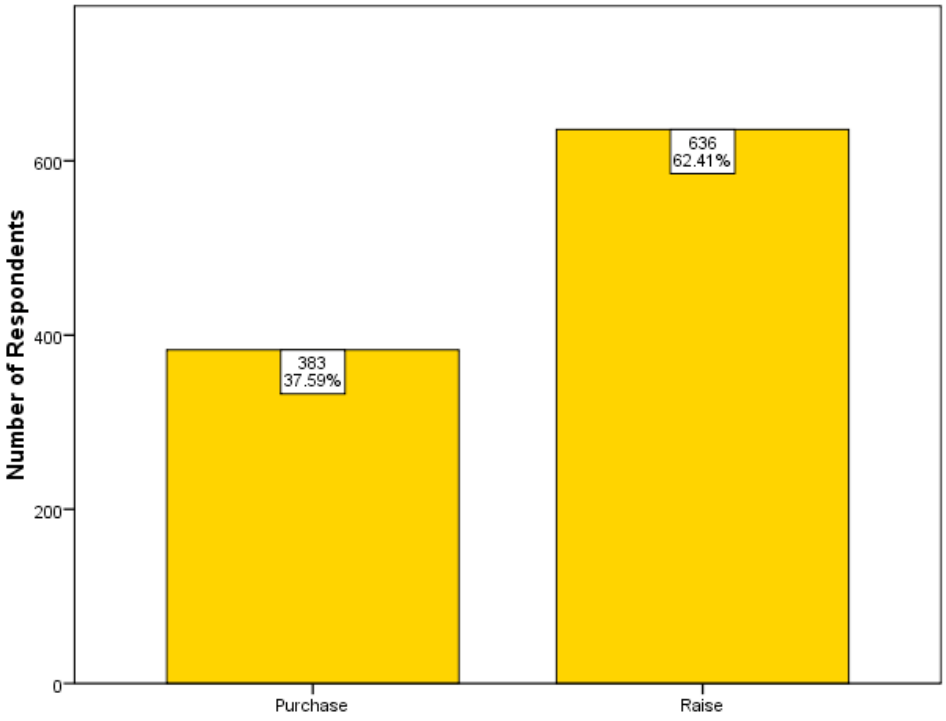
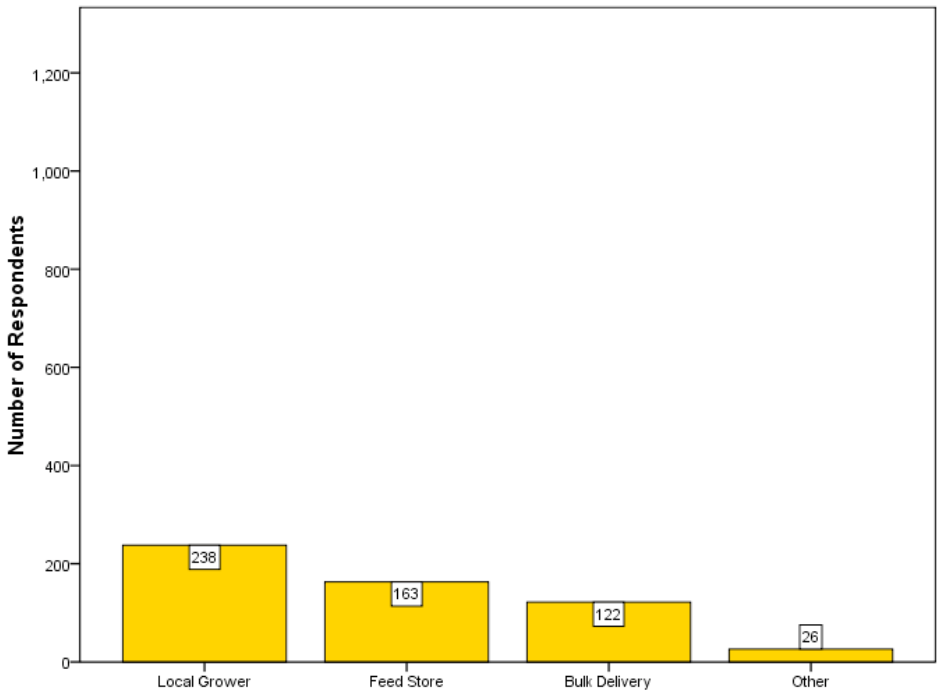


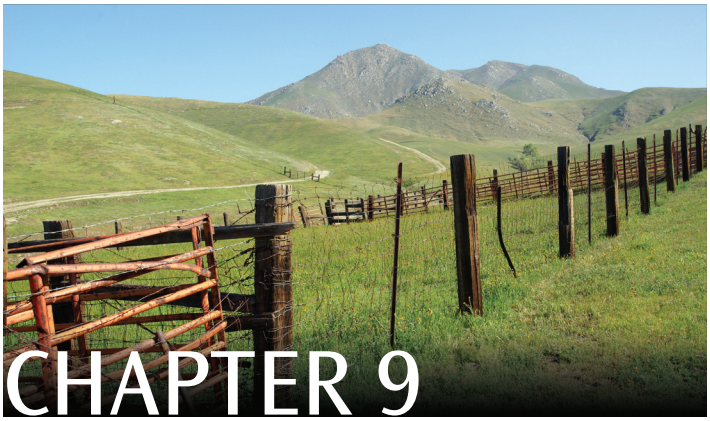
Figure 8.8 shows that of the 383 respondents who purchased animal feed, most (43.4 percent) bought it from a local grower. Other answers included purchases from co-ops, hay brokers, cattle buyers, auctions, and farmers or co-ops of some distance (usually 100 to 150 miles away and shipped from out of state). The most common "Other" purchase was from a co-op. In essence, these respondents could also have indicated "feed store."

Figure 8.8. Source of Purchased Feed



Summary – Chapter 8

- Crop and livestock producers are about as likely to have crops as animals. Mixed operations are probably typical.
- Of those operators surveyed, 67 percent have crops, while 70 percent have animals.
- Beef cattle are the predominant animal raised.
- The single largest crop acreage is small grains, but put together, hay and alfalfa are raised on a greater number of acres.
- Respondents indicated that 73 percent of crop acres are irrigated.
- The most commonly reported number of irrigated acres was 200.
- Only 17 respondents (1.6 percent) reported fallowing land and leasing the water.
- Respondents typically graze their own property and some public lands.
- Respondents most commonly graze pasture 12 months each year and typically use three pastures.
- The most common grazing strategies identified were to leave little forage or use about half of all forage.
- Pastures have a strong chance of being managed with a pasture management system.
- Operators often raise their own feed.
- If feed is purchased, it typically comes from a local grower.



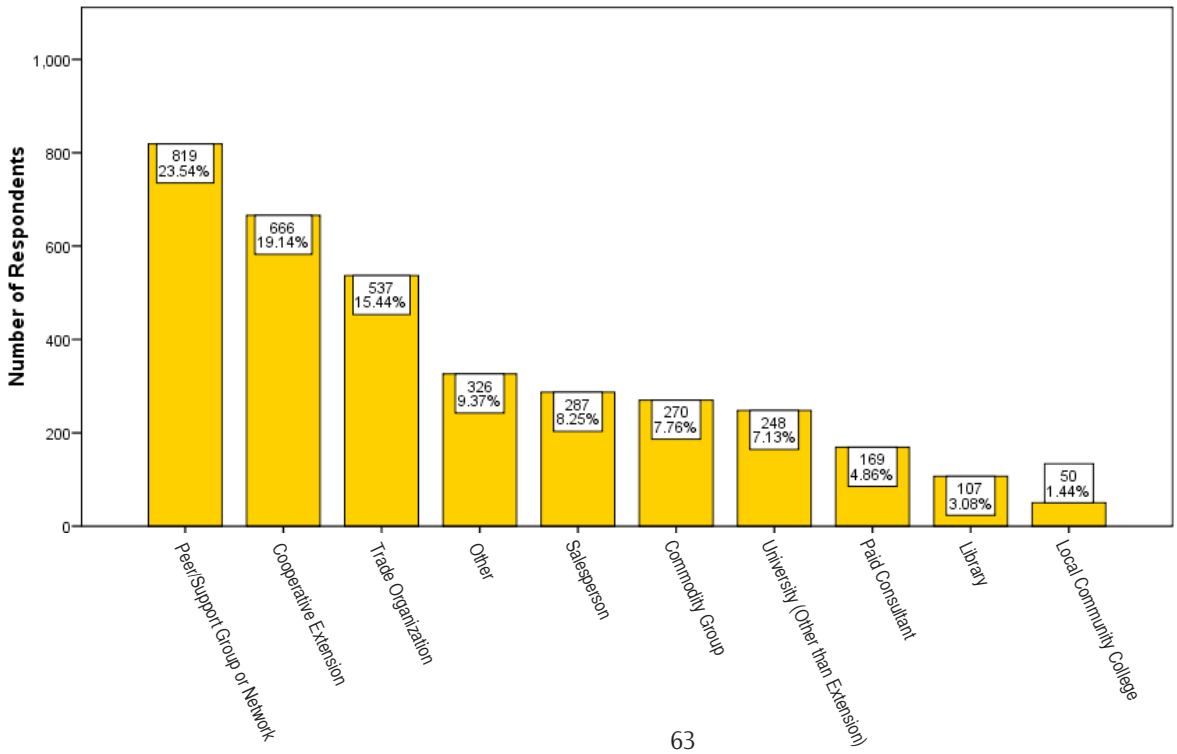
CHAPTER 9

Information Preferences

In today's world, most facts and figures are readily available at the click of a mouse or the push of a button. Because of this, it is critical for Cooperative Extension to be an easily accessible resource for the most up-to-date information. It is vital to the mission of the organization to gain insight into producers' most preferred methods of obtaining reliable and credible data.

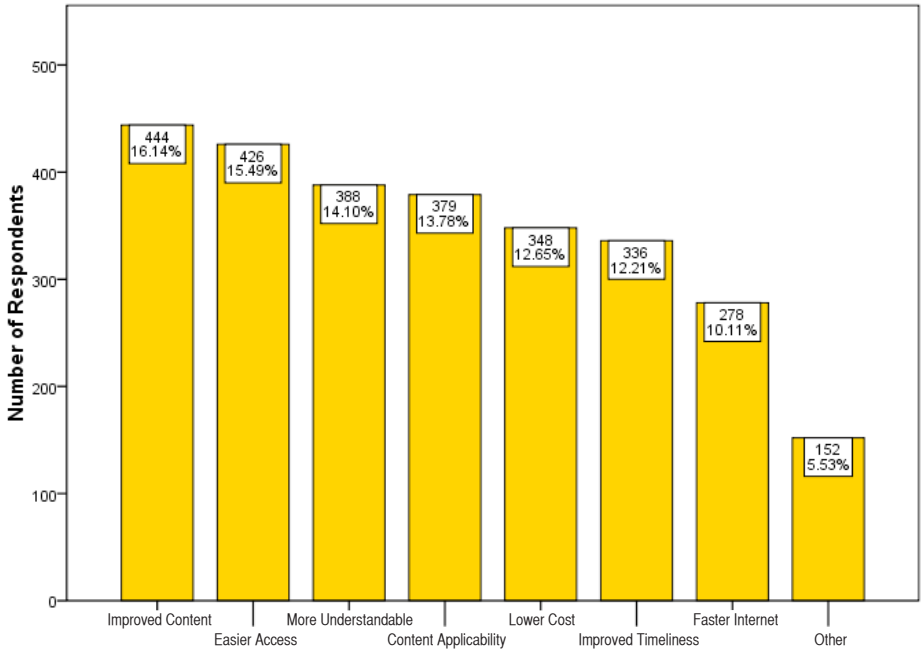
In response to the question: "When seeking information relevant to your agricultural operation, what are the Primary Operator's most preferred sources?" participants were asked to select the top three preferred sources of information out of a list of ten potential sources. Figure 9.1 shows that the top three responses were: 1) peer/support groups or networks (23.5 percent), 2) Cooperative Extension (19.1 percent), and 3) trade organizations (15.4 percent). In contrast, the least preferred sources were: paid consultants (4.9 percent), the library (3.1 percent), and the local community college (1.4 percent). Within the "Other" category, the two main responses were Internet/computers and printed materials, including industry publications, trade magazines, and newspapers. These two information sources accounted for 58 percent of the responses. While some of the categories overlapped, communication with another individual was clearly an important source of obtaining information.

Figure 9.1. Information Sources Preference – Operator 1



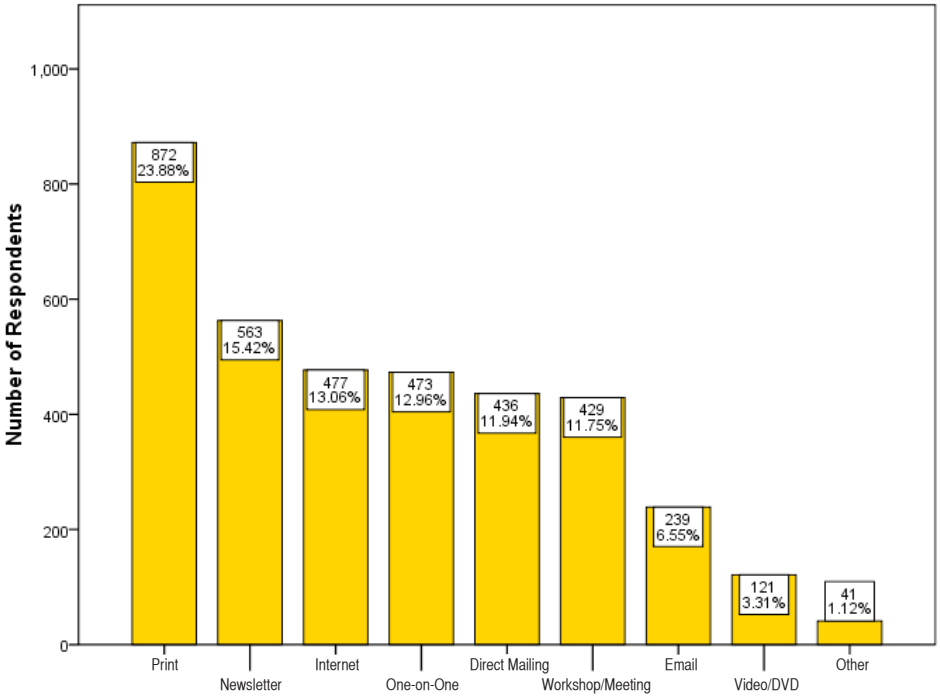
RFV Survey respondents were also questioned about the quality of the information they received and the delivery system. They were asked how their preferred sources of information could be improved and were told to mark all answers that applied. Although all categories were important, the top four selections were: improved content, easier access, making the information more understandable, and content applicability (59.5 percent).

Figure 9.2. Method for Improving Preferred Information Sources – Operator 1



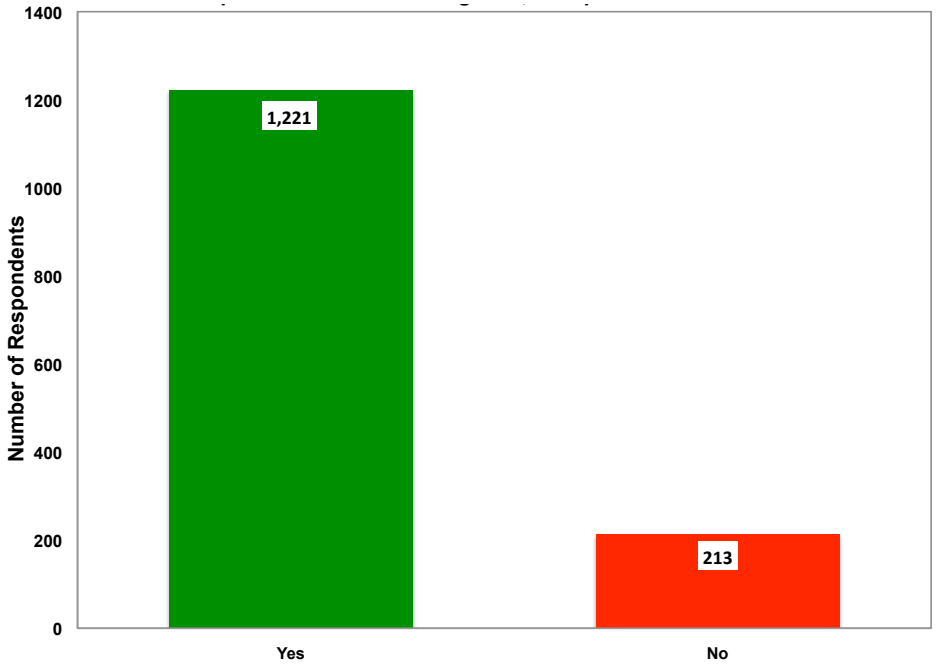
With the wide variety of delivery methods available, it is important to determine the way in which most producers want to access information. Primary operators were asked to list their top three choices for receiving information. Figure 9.3 shows the overwhelming preference was for print (23.9 percent) and newsletters (15.4 percent). The next four categories were very closely matched, with Internet at 13.1 percent, one-on-one at 13 percent, direct mailing at 11.9 percent, and workshops/meetings at 11.8 percent. Alternatives receiving fewer votes included email and video/DVD (9.9 percent total). Note that the other forms of printed materials included newsletters and direct mailings, which might also be distributed electronically.

Figure 9.3. Preferred Form for Information Delivery – Operator 1



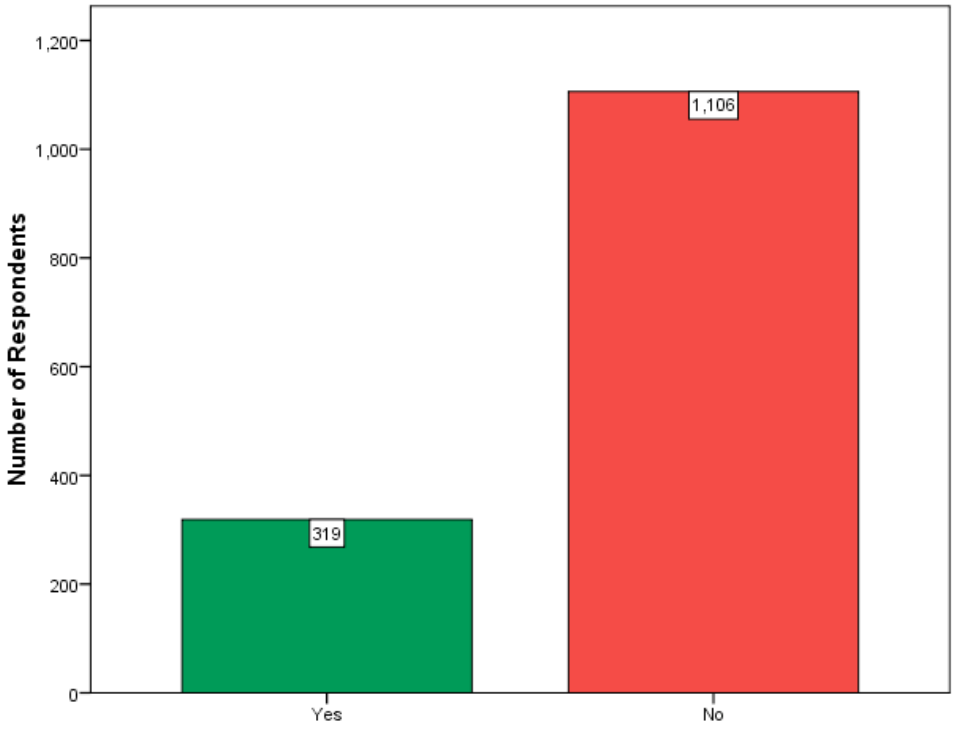
To determine the role of Cooperative Extension in aiding "the diffusion among the people of the United States useful and practical information on the subjects relating to agriculture and home economics and to encourage the application of the same," we must learn who is using Cooperative Extension Services and the type of Cooperative Extension programs they access. Respondents were asked: "Have any operators involved with this operation ever received information from Cooperative Extension?" More than 85 percent of respondents indicated "Yes," while the balance responded "No" (14.9 percent).

Figure 9.4. Participation in Cooperative Extension Programs, Except 4-H



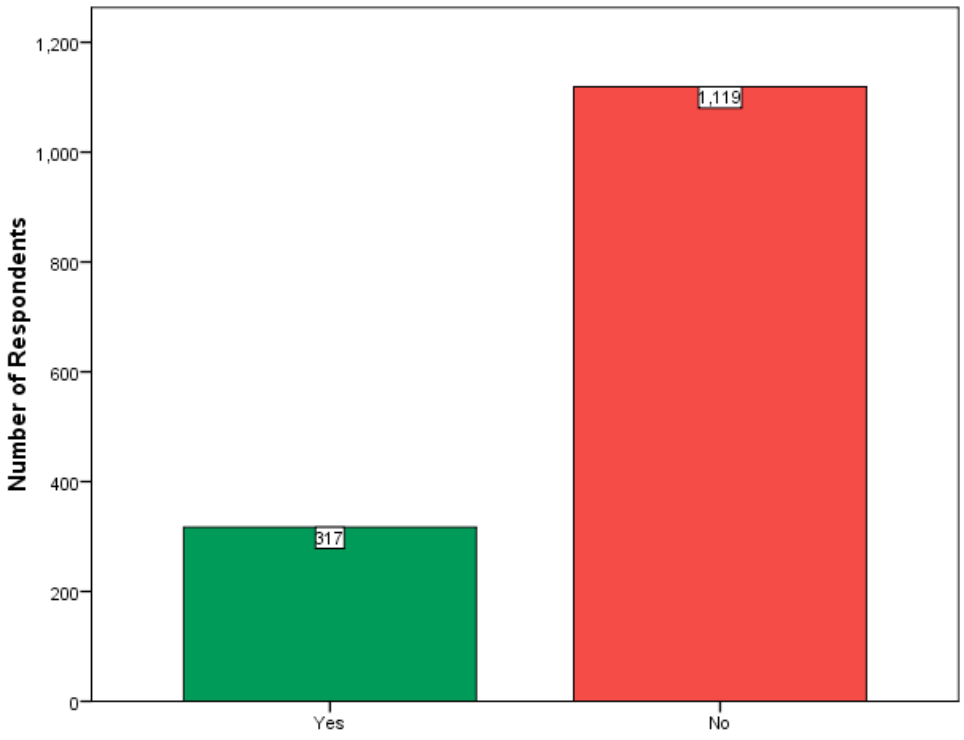
The RFV Survey also questioned how many individuals had participated in Cooperative Extension programs other than 4-H activities within past 12 months. A total of 77.6 percent responded that they had not participated in a recent program, while 22.4 percent reported that they had participated in a Cooperative Extension program within the past 12 months.

Figure 9.5. Participation in Cooperative Extension Program during the Past 12 Months (not 4-H)



Does participation in 4-H make a difference in a respondent's interaction with Cooperative Extension? The next question asked if any immediate family members had participated in 4-H during the past two years. Figure 9.6 shows that the overwhelming response to this question was "No" (77.9 percent) and only 22.1 percent responded "Yes." This is not surprising when the age of most respondents was over 65 years, and they would most likely not have immediate family members who are 4-H participant age.

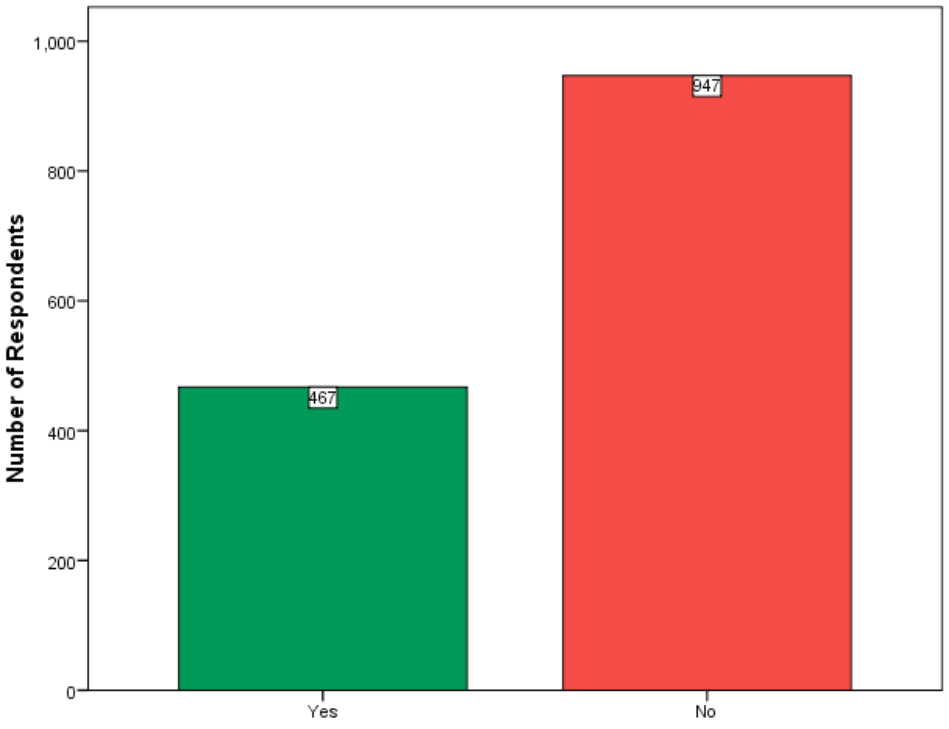
Figure 9.6. Participation in 4-H in Recent Two Years



Although Cooperative Extension is the largest branch of the university charged with disseminating knowledge outside of traditional educational programs, it is not the only point of distribution. Many land-grant universities have teaching colleges that reach out to the same audiences as Cooperative Extension. Veterinary hospitals, plant and animal diagnostic labs, and equine centers also play a role in the dissemination of research and education.

Respondents were asked if they had used any university services besides Cooperative Extension. A total of 67 percent responded "No," while 33 percent responded "Yes." Results indicate that if the respondents receive information from the university, it will likely come from Cooperative Extension. The survey also

Figure 9.7. Used Any Non-Extension University Services



asked those who indicated "Yes" to list the university services used. The top three categories included diagnostic labs and experiment stations, college departments, and other universities, respectively. Some of the specific topics mentioned were horticulture, livestock breeding information, weed control and identification, soil testing, and hay testing.

The results of this section suggest that despite the many advances in delivery mechanisms, personal or one-on-one connections are still highly valued as a means of acquiring new information. Producers prefer printed information. Though Cooperative Extension still plays an integral role in the acquisition of knowledge, some results suggest that it may be necessary to improve content and make information more understandable.

Summary – Chapter 9

- The preferred sources for receiving information are through some form of one-on-one communication: peer/support group, Cooperative Extension, or trade organizations.
- The preferred form in which to receive information is overwhelmingly print, followed by newsletters.
- Cooperative Extension has been used by 85.1 percent of respondents and is a key source for information and personal contact for producers facing questions about their operations.
- In general, respondents felt the content and understandability of the information they receive could be improved, as well as made easier to access.
- The majority of respondents and their immediate family members (77.9 percent) had not participated in 4-H during the past two years.
- For most respondents (77.6 percent), it had been longer than 12 months since they had participated in a Cooperative Extension program besides 4-H.
- Other university services, such as direct department contacts, diagnostic labs, and experiment station research, were important sources of information for 33 percent of respondents.

CHAPTER 10

Conclusions and Policy Implications

The rural West has experienced a dramatic demographic and economic transformation over the past decade. Although a great deal is known about agriculture's contribution to the economy, much less is known about the changing makeup of farm operators and the behavioral and institutional factors that promote or impede the growth of agriculture in the West.

In 1914, Congress passed the Smith-Lever Act, establishing the Cooperative Extension Service as the primary educational outreach branch of land-grant universities. Since that time, Cooperative Extension has had to continually adapt to the changing landscape of agriculture to ensure its mission is met.

Given the importance of university outreach education to the future of agriculture, a better understanding of farm operators, including what they perceive to be the greatest threats to their operations, is required to effectively design risk management education. Anecdotal evidence and Census of Agriculture data show that the profile of a traditional farm operator is changing; however, more in depth information is necessary to answer the following questions:

- Who are today's large farmers and ranchers?
- What are their preferences for learning?
- What do they perceive as the greatest threats to their operations?
- What information do they believe would be helpful to them as they manage their agricultural enterprises?

Today's Farmers and Ranchers

The Census of Agriculture defines a farm as "any place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year" (NASS, 2007). Federal farm program payments are regarded as sales for the purpose of definitional eligibility.

In 2007, Wyoming, Colorado, and Arizona reported a total of 63,760 farms, up from 48,085 farms in 2002. A total of 28,465 farms across the three states reported harvested cropland, which constituted a total of 8.257 million acres. Furthermore, 28,026 farms reported cattle and calves for a total of 5.057 million head of cattle.

Farms reporting over 49 acres of harvested cropland totaled 34,939, or 54.8 percent of farms across the three-state region. As for animal producers, 8,978 farms (32 percent) reported over 49 head of cattle, and 1,703 (6.1 percent) reported over 499 head of cattle (NASS, 2007).

A comparison of census data for 2002 and 2007 shows several demographic shifts in Wyoming, Colorado, and Arizona farm and ranch populations. The overall number of farms in the three states increased significantly (32.6 percent) during that time; however, the number of farms over 499 acres remained fairly constant.

Data showed that 19 percent of all farms have annual gross sales of greater than $50,000. Most farm operators own and live on their own properties and operate them as sole proprietorships. Most farm operators have off-farm employment; many work off-

farm 200 or more days per year. Many farms have access to the Internet and a large number have access to high-speed Internet. The average age of farm operators in Wyoming, Colorado, and Arizona increased slightly from 2002 to 2007.

Larger operations constitute a sizable portion of those involved in crop and livestock production across the three states. And while current census data provides information about the type and scale of larger agricultural enterprises, it is unclear how they compare with the smaller operations on any number of points.

To further the investigation, a Rural Family Ventures Survey was sent out to identify larger operator demographics, sources of risk, information sources and preferred methods for receiving new information, resource management, and income status. The effort was intended to more clearly understand the risk management education needs of traditional Cooperative Extension clientele (commercial agricultural producers) and to clearly identify the changing characteristics of this group.

The approach was similar in design to that used to survey operators who reported less than $50,000 in agricultural sales across the three states. This allowed for close comparison of the results collected from both RFV Surveys.

The findings in this report are preliminary. The report is intended to summarize information from all those who responded to the survey, including individuals who do not fit the profile of a respondent with greater than $50,000 in annual agricultural sales.

Farmers in this study are highly homogeneous with respect to their social and demographic attributes. A potential new clientele has been identified as larger operators who have never received information from Cooperative Extension (or have not for more than a year), those who are at production or financial risk, and those whose farm income accounts for more than 80 percent of household income. The survey results also identified a gap between what respondents believe they need in the way of helpful information and educator curriculum. The following information is a summary of the makeup of today's farmers and ranchers.

Demographics

The majority of respondents have lived many years (more than 30) within their communities and on their farms and ranches. The properties tend to be about 20 miles from the nearest metro area. While some operators have off-farm jobs, they do not commute far from their homes; some even report off-farm employment without traveling off the farm.

Responding operators are typically male, older than 65 years of age, and white. Survey data suggest the spouses of these farm and ranch operators help manage the businesses. Over one-third of primary operators report a 4-year college degree, 39 percent report a 4-year degree for Operator 2.

Most surveys were completed by the primary operators, and Operator 2 was most often reported as the spouse. Most respondents selected "small farm or ranch" as the description of their operation.

Attitudes

Responding operators are engaged in their operations to earn a profit and because it allows them to work closely with nature. Most intend to manage their business until they can no longer do the work. They perceive production risk to be their greatest challenge, followed by risks associated with financing and marketing their production.

Overall, producers are confident in their abilities to handle uncertainty and change, to manage their family businesses, and to achieve their goals. They are somewhat less certain about finding time for themselves and generally balancing work and family responsibilities. Survey respondents do not necessarily view themselves as being on the cutting edge of technology. They struggle with the decision to involve others in the business. They also feel strongly that "today's ranchers and farmers are at the mercy of outside forces."

RFV Survey respondents appear optimistic about the future of their businesses, view themselves as successful, and are environmentally sensitive. These individuals enjoy what they do and strive for quality in the family business. For the most part, they do not envision themselves doing anything else.

Income

The majority of respondents operate as a sole proprietorship and are usually family owned. For more than one-third of the operators surveyed, the income generated on-farm accounts for more than 80 percent of total household income for one family. Paid employees, including family members, are typical for about half of the operations in Wyoming, Colorado, and Arizona.

Resources

Responding operators typically own 2,000 acres, and about two-thirds lease additional land, usually about 2,000 acres. Wells are the most common source of water, but surface water on or bordering such properties is also typical. About one-third of these property owners use some type of irrigation on their pastures, commonly about 200 acres. Most of the operators surveyed use agricultural chemicals, but only about 50.6 percent reported holding chemical applicator licenses.

Respondents tend to heavily graze their own property. They reported typically grazing pastures 12 months each year and leave little forage or use about half of all forage production. Their pastures are most likely managed with a pasture management system. If they have a grazing management plan, respondents are likely to have a three-pasture rotation. Over one-third report using public land leases to supplement production from their own land, typically 100 AUMs.

Enterprises

Beef cattle, hay farming, and small grains are the three most prevalent enterprises on these operations. Responding producers in the survey area typically own livestock and other animals (70.3 percent). A total of 86.3 percent of the animal owners reported beef cattle, with an average herd size of 200 head. About 60.6 percent of the operators who own animals indicated they keep horses but not for sale.

The managers who reported crop production tend to be irrigated crop producers, with a majority of the acres in alfalfa or mixed hay production. The typical alfalfa producer grows about 200 acres, and the typical mixed hay producer grows about 100 acres. Government programs, such as the CRP, are a significant source of income for many responding operators.

Education

Responding farmers and ranchers highly value personal or one-on-one interaction as a means of acquiring new information. Peer/support groups or networks are the most preferred mode of one-on-one interaction, followed by Cooperative Extension and trade organizations. Larger producers are more likely to belong to commodity groups, to pay consultants, or to seek agriculturally related information from community colleges.

Information is preferred in print format. The overwhelming preference for print media was followed by newsletters, Internet, and one-on-one interaction. Direct mailings and workshops/meetings were next, with email and video/DVD ranked last aside from the write-in category.

Cooperative Extension plays an important part in a producer's acquisition of knowledge. A large majority of responding producers reported receiving information from Cooperative Extension but not participating in an Extension program during the past 12 months. Understandably, given the average age of producers, most responding farm families have not had any family members participate in 4-H for at least two years.

The Cooperative Extension Connection

While the Cooperative Extension Service is primarily responsible for the diffusion of knowledge outside traditional for-credit education programs, other university departments also play a role in the dissemination of research and education. Survey data suggest, however, that if the respondents receive information from a university, it most likely comes from Cooperative Extension.

From this study comes a better understanding of western producers' educational needs and the threats facing their operations. Researchers are cautiously optimistic that the end result may be twofold: a more efficient use of Cooperative Extension resources and an enhanced adoption of risk management strategies by agricultural producers across the three states. University and Cooperative Extension administrators across the West may want to revisit the relationship Cooperative Extension has with its clientele. Survey responses to questions pertaining to the value of Cooperative Extension as a source of information have implications for Extension's ability to fulfill its mission and for the long-term sustainability of larger farms and ranches.

Unfortunately, it is difficult to predict how Cooperative Extension may be able to respond to the educational and informational needs of today's commercial operators.

Future Efforts

This report is intended to present a first look at the descriptive statistics derived from the RFV Survey responses. Further investigation will likely reveal additional insights into underlying factors only briefly outlined herein. These analyses will provide new insights into the changing makeup of large and small farm operators, who are the subject of both national and global interest, and will aid in the identification of new Cooperative Extension clientele and their learning preferences.

At this point, the research team intends to conduct additional surveys by contacting Cooperative Extension clientele and past survey respondents who expressed a willingness to participate in research activities. Further analysis of existing data sets will help to clarify the implications for Cooperative Extension education and the sustainability of small- and large-scale agricultural operations.

Future team efforts may include:

- Further analysis to address unanswered and emerging questions. For example:
    - » What is the correlation of "proximity to a metro area" to income levels, levels of educational attainment, enterprise selection, off-property employment, etc.?
    - » Are there learning preference differences amongst geographic locations? Are the differences in perceived risks dependent upon geographic location?
    - » How do respondents understand the differences between Cooperative Extension, 4-H, and other university services? Also, do farmers and ranchers realize that some information in trade publications is actually based upon work completed by Cooperative Extension professionals?
- Further investigation into the preferred sources of information and openness to technology.
- Expanding the survey to states beyond the initial area of Wyoming, Colorado, and Arizona.
- Conducting focus groups to test survey results and to enhance the authors' understanding of survey responses.
- Conducting additional analysis of data collected in this survey of large operators and from the smaller operator survey. This will allow for a more specific and detailed investigation of the particular differences between farms and ranches reporting a range of agricultural sales, education, experience in agriculture, etc.
- Further investigation into the findings and relationships between this survey data, NASS data, and other published data sources. Additional inferences could be drawn about the total farm and ranch population and particular subsets of the agricultural community as Cooperative Extension clientele.

APPENDIX 1
SURVEY INSTRUMENT

Cooperative Extension Service
Rural Family Ventures Survey – 1000 E. University Avenue - Dept. 3354, Laramie, Wyoming 82071-3354

Dear Business Owner:

We invite you to participate in a research project about enterprises and land use being conducted by the Cooperative Extension Services in the Inter-Mountain states of Arizona, Colorado and Wyoming. We hope to learn about alternative enterprises in the West and how to provide better educational offerings. The project, titled "Profiling the Evolving Characteristics and Needs for Risk Management Education of Commercial Agricultural Producers in the Intermountain West," is being sponsored in part by the Western Center for Risk Management Education.

We believe businesses like yours are an important part of the agricultural industry in the West. The population in the West has grown dramatically in recent years, and there is a large variety in how land is used, and by whom. As part of the land grant university mission to share information with those who need it, we are working to understand why and how people are using rural land, and how to best deliver answers to the questions they may have. Knowing this information will help us improve our services and help people make the most of their resources.

Your answers will be kept strictly confidential and will only be released as summaries in which you will not be identified. We estimate it will take about 30 minutes to complete the survey. Your participation is voluntary. However, you can help us a great deal by sharing your perspective. If you prefer not to respond to a specific question, please omit it and move on. There are no known risks associated with your participation in this project. It is not possible to identify all potential risks in an experimental procedure, but the researchers have taken reasonable safeguards to minimize any known and potential, but unidentified risks. If you have any questions about your rights as a volunteer in this research, you may contact the University of Wyoming IRB Administrator at 307-766-5320.

Please return the survey in the enclosed, stamped envelope. A summary of the results will be available at **http://RuralFamilyVentures.org** after June 2009.

Your time is greatly appreciated. Thank you.
If you have any questions or comments, please contact one of the researchers listed below.

~Signature removed~

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Profiling the Needs for Risk Management Education of Commercial Agricultural Producers in the Intermountain West

The Extension Services of Wyoming, Colorado, and Arizona are conducting this survey to identify alternative enterprises in the West and to provide better educational offerings. Where possible please have the Primary Operator complete the survey if the business operates on rural lands in one of these states. Thank you.

SECTION I - Reasons for Involvement

1. Why is the Primary Operator engaged in this particular agricultural operation (mark all that apply):

a) To make a profit	1101
b) To supplement family income	1102
c) I had limited alternatives for employment and business opportunities	1103
d) Working close to nature is rewarding	1104
e) I inherited the operation	1105
f) My operation keeps me closer to my family	1106
g) I wanted a change in career direction	1107
h) I like to be involved in unique and challenging work	1108
i) My "hobby" expanded into a business	1109
j) Other (specify) 1110 _____	1111

2. How long does the Primary Operator expect to manage this property? (mark only one)

a) Until children graduate high school	1201
b) Until children graduate college	1202
c) Until children "take over" the business	1203
d) Until a landlord dies or sells the land	1204
e) Until I retire	1205
f) Until my spouse retires	1206
g) Until I can no longer do the work	1207
h) Until I die	1208
i) Other (specify) 1209 _____	1210

3. The United States Department of Agriculture has identified five primary sources of risk for agricultural operations: production, marketing, legal or institutional, finance, and human. Please rank the five risks in terms of their importance to the operation (1 being the most important or critical to your operation and 5 being the least important)

a) Production Risk (*weather, pests, diseases, or other variability in production*)	1301
b) Marketing Risk (*variation in or unexpected changes in prices received or paid*)	1302
c) Financial Risk *(meeting cash flow needs, equity growth, and/or availability of debt capital)*	1303
d) Legal or Institutional Risk *(contract obligations, regulatory changes, or threats of lawsuits)*	1304
e) Human Risk *(employee performance, management ability, or estate transfers)*	1305

4. Please circle the answer that best indicates the Primary Operator's agreement/disagreement with each statement about agricultural businesses. (1 meaning greatest disagreement and 5 meaning greatest agreement)

		Disagree				Agree
a) I am comfortable with the way I handle uncertainty in my business environment	1401	1	2	3	4	5
b) Success in my business is driven by my own abilities as an individual rather than relying on others to help me succeed	1402	1	2	3	4	5
c) I have little time for myself or any leisure activities	1403	1	2	3	4	5
d) I am optimistic about the future of my business	1404	1	2	3	4	5
e) I consider myself successful	1405	1	2	3	4	5
f) I am achieving most of my goals	1406	1	2	3	4	5
g) I am always one of the first in my industry to try new technologies or production strategies	1407	1	2	3	4	5
h) I am confident in my ability to deal with the changes that are taking place in the business environment	1408	1	2	3	4	5
i) The work of the business needs to be done but there's no great joy in it	1409	1	2	3	4	5
j) Business tasks must come before family/personal time	1410	1	2	3	4	5
k) This business will fail if I am not able to do the work	1411	1	2	3	4	5
l) Today's ranchers and farmers are at the mercy of outside forces so the best I can do is to adjust to the situation	1412	1	2	3	4	5
m) Ranchers and farmers today must be sensitive to the environment by reducing the use of agricultural chemicals on their land	1413	1	2	3	4	5

SECTION II - Information Preferences

1. When seeking information relevant to the agricultural operation, what are the Primary Operator's most preferred sources? (mark top 3 choices)

a) Trade organization	2101	f) Salesperson	2106
b) Commodity group	2102	g) Local Community College	2107
c) Peer/support group or network	2103	h) University (other than Extension)	2108
d) Library	2104	i) Cooperative Extension	2109
e) Paid consultant	2105	j) Other (specify) 2110 _____	2111

2. Of the information sources the Primary Operator uses, please indicate how they could be improved. (mark top 3 choices)

a) Easier access	2201	e) Improved content	2205
b) Improved timeliness	2202	f) Content applicability	2206
c) Lower cost	2203	g) More understandable	2207
d) Faster internet	2204	h) Other (specify) 2208 _____ .	2209

3. In what form does the Primary Operator prefer to receive information? (mark top 3 choices)

a) Print	2301	f) Workshop/meeting/field day	2306
b) Video/DVD	2302	g) One on one	2307
c) Internet (excluding e-Mail)	2303	h) Direct mailing	2308
d) Newsletter	2304	i) Other (specify) 2309 _____ .	2310
e) e-Mail	2305	j) Other (specify) 2311 _____	2312

4. Have any operators involved with this operation ever received information from Cooperative Extension?	2401	❑ Yes 1 ❑ No 3
5. Have any operators involved with this operation previously participated in Cooperative Extension Workshops?	2501	❑ Yes 1 ❑ No 3
6. Has anyone from the operation participated in a Cooperative Extension program (except 4-H) in the last 12 months?	2601	❑ Yes 1 ❑ No 3
7. Have any immediate family members of operators involved with this operation participated in 4-H in the last two years?	2701	❑ Yes 1 ❑ No 3
8. Have any operators involved with this operation used any University services besides Cooperative Extension?	2801	❑ Yes 1 ❑ No 3

9. If you indicated Yes on question 8, please list those University services the operators have used.

2901 _____ 2902 _____ 2903 _____

SECTION III – Resource Management

1. How many acres of land are owned by the operation?	3101	
2. How many acres of land are leased by the operation?	3201	

3. What are the sources of water on the total land operated by the operation? (mark all that apply)

a) Surface water	3301	d) Municipal	3304
b) Wells	3302	e) Rural water system	3305
c) Developed springs	3303	f) Other (specify) 3306 _____	3307

4. Is there a river, stream, pond, or other surface waterway on or bordering the property operated by the operation?	3401	❑ Yes 1 ❑ No 3
5. Does the operation use chemicals to control weeds on the property?	3501	❑ Yes 1 ❑ No 3
6. Do any operators involved with this operation have a current chemical applicators license?	3601	❑ Yes 1 ❑ No 3
7. Does the operation produce any commodities sold as organic, certified organic, all natural, chemical free, free range, or some other term indicating a specialty market?	3701	❑ Yes 1 ❑ No 3
8. Has the operation previously applied to enroll land in the Conservation Reserve Program?	3801	❑ Yes 1 ❑ No 3
9. If Yes, how many acres are enrolled	3901	

10.	Does the operation irrigate any pasture?	3951	❑ Yes [1] ❑ No [3]
11.	If Yes, how many pasture acres are irrigated?	3961	

SECTION IV. Complete this section if the operation grew any crops or cut hay in 2008.

1. What crops did the operation grow in 2008? (Enter acres for all applicable crops)

	Acres		Acres
a) Alfalfa & alfalfa mixture hay	4101	g) Soybeans	4107
b) Mixed/other hay	4102	h) Dry beans	4108
c) Corn	4103	i) Fruits	4109
d) Sorghum (grain)	4104	j) Vegetables	4110
e) Small grains	4105	k) Other [4111] _____	4112
f) Sunflowers	4106	l) Other [4113] _____	4114

2.	Does the operation irrigate any of its crops?	4201	❑ Yes [1] ❑ No [3]
3.	If Yes, how many crop acres are irrigated?	4301	

4.	Does the operation fallow any irrigated land and lease the water?	4401	❑ Yes [1] ❑ No [3]
5.	If Yes, how many acres are fallowed?	4501	

SECTION V. Complete this section if the operation had any livestock or poultry in 2008.

1. What was the peak inventory number of the following livestock and poultry in 2008?

	Number		Number
a) Beef cattle	5101	g) Swine	5107
b) Dairy cattle	5102	h) Horses (not for sale)	5108
c) Sheep (for all uses except dairy)	5103	i) Horses (for sale)	5109
d) Sheep (dairy)	5104	j) Llamas/Alpacas	5110
e) Goats (for all uses except dairy)	5105	k) Poultry	5111
f) Goats (dairy)	5106	l) Other (specify) [5112] _____	5113

2.	How many months per year does the operation usually graze animals on pasture?	5201	

3.	Does the operation use a grazing management system to rotate animals through two or more pastures?	5301	❑ Yes [1] ❑ No [3]
4.	If yes, how many pastures	5401	
5.	Does the operation have any grazing rights for public lands, such as BLM, forest service, etc?	5501	❑ Yes [1] ❑ No [3]
6.	If yes, how many animal unit months (aums)	5601	

7. How much of the annual pasture production do the grazing animals typically eat? (mark one)

a) All of it or as much as they can get	5701
b) Most of it (some left standing but pretty short)	5702
c) About half	5703
d) A little bit (most of what grew in a given year remains standing after grazing)	5704
e) None	5705
f) Other (specify) 5706 _____	5707

8. Does the operation purchase or raise most of the feed for the animals on the property? 5801 ❑ Purchase 1 ❑ Raise 2

9. If feed is purchased, where does the operation purchase its feed (mark all that apply)?

5901 ❑ Local grower	5903 ❑ Bulk delivery
5902 ❑ Feed store	5904 ❑ Other (specify) 5905 _____

SECTION VI – Income Issues

1. What business type best describes the operation in 2008? (mark one)

a) Sole proprietorship	6101	e) S Corporation	6105
b) Partnership	6102	f) Regular corporation	6106
c) Limited Liability Entity – LLC, LLP, LLLP, other	6103	g) Other (trust, grazing association, etc.) 6107 _____	6108
d) American Indian Reservation	6104		

2. Is this operation a family-owned or closely-held business? 6201 ❑ Yes 1 ❑ No 3

3. What size was the operation based on gross farm income in 2008? (mark one)

a) Less than $1,000	6301	g) $25,000 to $39,999	6307
b) $1,000 to $2,499	6302	h) $40,000 to $49,999	6308
c) $2,500 to $4,999	6303	i) $50,000 to $99,999	6309
d) $5,000 to $9,999	6304	j) $100,000 to $249,999	6310
e) $10,000 to $19,999	6305	k) $250,000 to $499,999	6311
f) $20,000 to $24,999	6306	l) $500,000 or more	6312

4. How many households shared in the 2008 net farm income of this operation? 6401

5. In 2008, what percent of the Primary Operator's total household income came from this agricultural operation? 6501

6. Did the operation have paid employees (including family members) in 2008? 6601 ❑ Yes 1 ❑ No 3

7. If yes, how many employees 6701

8. What was the primary source of income for this operation in 2008? (mark one)

a) Grain & oilseed farming	6801	i) Cattle feedlots	6809
b) Vegetable & melon farming	6802	j) Dairy cattle & milk production	6810
c) Greenhouse, nursery, floriculture	6803	k) Hog & pig production	6811
d) Hay farming	6804	l) Sheep & goat production	6812
e) Other crop farming	6805	m) Aquaculture & other animal production	6813
f) Tourism & recreation	6806	n) Specialty products	6814
g) Hunting & fishing	6807	o) Other (specify) 6715 _____	6816
h) Beef cattle	6808		

9. How was this operation financed in 2008? (mark all that apply)

a) Personal savings	6901	e) Operating loan from bank	6905
b) Off-farm income	6902	f) Loans from relatives	6906
c) Cash flows from product sales	6903	g) Other (specify) 6907 _____	6908
d) Retirement accounts	6904		

10. How does the operation market commodities, products, and services? (mark all that apply)

a) On-farm direct sales	6951	e) Auctions	6955
b) Roadside stands	6952	f) Brokers/traders	6956
c) Other direct sales	6953	g) Other (specify) 6957 _____	6958
d) Internet/web-based	6954		

SECTION VII - Demographics

1. How rural is most of the property managed by this operation? (mark only one)

Completely Rural	Mostly Rural	Mix of Rural & Urban	Mostly Urban	Completely Urban
7101	7102	7103	7104	7105

2. What is the zip code which is appropriate for the majority of the operation? 7201

3. Is the Primary Operator's residence located on the property? 7301 ❑ Yes [1] ❑ No [3]

4. If no, how far apart are they? (miles) 7401

5. How far is it from the operation to the nearest "metro area?" (miles) 7501

6. If the Primary Operator or members of the Primary Operator's household currently hold an off-property job, how far does the individual who travels farthest commute to work? (miles) 7601

7. Operators are those persons responsible for the day-to-day management decisions for "this operation."
   a) How many operators are associated with this "operation?" 7701
   b) How many of the operators are women? 7702

8. Please complete the following questions for up to two primary operators associated with this operation.

	Primary Operator	Operator 2
a) Gender	7801 ❑ Male [1] ❑ Female [3]	7901 ❑ Male [1] ❑ Female [3]
b) Current age	7802 ❑ Under 25 [1] ❑ 25 - 34 [2] ❑ 35 - 44 [3] ❑ 45 - 54 [4] ❑ 55 - 64 [5] ❑ 65 & Over [6]	7902 ❑ Under 25 [1] ❑ 25 - 34 [2] ❑ 35 - 44 [3] ❑ 45 - 54 [4] ❑ 55 - 64 [5] ❑ 65 & Over [6]
c) Of Spanish, Hispanic, or Latino origin or background	7803 ❑ Yes [1] ❑ No [3]	7903 ❑ Yes [1] ❑ No [3]
d) Race (mark all that apply)	7804 ❑ White/Caucasian [1] ❑ Black or African-American [2] ❑ American Indian or Alaskan Native [3] ❑ Asian [4] ❑ Native Hawaiian or Other Pacific Islander [5]	7904 ❑ White/Caucasian [1] ❑ Black or African-American [2] ❑ American Indian or Alaskan Native [3] ❑ Asian [4] ❑ Native Hawaiian or Other Pacific Islander [5]
e) Highest level of education	7805 ❑ Less than High School [1] ❑ High School [2] ❑ Trade School [3] ❑ College Degree, 2 yr [4] ❑ College Degree, 4 yr [5] ❑ Graduate Degree [6] ❑ Other [7806] _____	7905 ❑ Less than High School [1] ❑ High School [2] ❑ Trade School [3] ❑ College Degree, 2 yr [4] ❑ College Degree, 4 yr [5] ❑ Graduate Degree [6] ❑ Other [7906] _____
f) How long has the operator lived at the current location (years)?	7807	7907
g) How long has the operator lived in the community (years)?	7808	7908
h) How many days in 2008 did the operator work off the operation?	7809 ❑ None [1] ❑ 1-49 days [2] ❑ 50-99 days [3] ❑ 100-199 Days [4] ❑ 200 or more days [5]	7909 ❑ None [1] ❑ 1-49 days [2] ❑ 50-99 days [3] ❑ 100-199 Days [4] ❑ 200 or more days [5]
i) How many people lived in the operator's household on December 31, 2008?	7810	7910 Enter 0 if this operator was counted with Primary Operator.
j) What year did the operator first begin doing anything on the operation?	7811	7911
k) Please indicate which, if any, of these descriptions fit the operator. (mark all that apply)	7812 ❑ Small farm or ranch [1] ❑ Woman producer [2] ❑ Retiring/transitioning producer [3] ❑ Socially disadvantaged producer [4] ❑ Limited resource producer [5] ❑ Immigrant producer [6] ❑ Producer converting production and/or marketing systems to pursue new markets [7]	7912 ❑ Small farm or ranch [1] ❑ Woman producer [2] ❑ Retiring/transitioning producer [3] ❑ Socially disadvantaged producer [4] ❑ Limited resource producer [5] ❑ Immigrant producer [6] ❑ Producer converting production and/or marketing systems to pursue new markets [7]

SECTION VIII - Other

1. Who completed this survey? 8101
   - ❑ Primary Operator [1]
   - ❑ Operator #2 [2]
   - ❑ Other (specify) [8102] _____

2. What is the relationship of Operator #2 to Primary Operator? 8201
   - ❑ Spouse [1]
   - ❑ Child/Child In-Law [2]
   - ❑ Other Family Member [3]
   - ❑ Non-Family Member [4]

3. If operator has previous work experience outside of agriculture what was the previous primary occupation? (write in response)

Primary Operator	Operator 2
8301	8302

Thank you *for completing this survey.*
Your answers are confidential.

Producer input is crucial to interpreting the data from this survey. Would you be willing to give your permission for the principal investigator from the land grant university in your State to contact you to verify the findings of the survey? If yes, please read the statement below and sign and date in the blanks provided. Thank you.

"*I give my permission for my name and address to be given to representatives of the land grant university of my State with the understanding that they may contact me directly to further discuss my operation. After being contacted, I still reserve the right to decline further participation.*"

Thank you.

Signature [9999]	Date

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