

## THE SOUTH VALLEY

The South Valley is a green and lush area located south of Albuquerque along the Rio Grande. It draws the eye after driving through miles of sparsely vegetated desert, with fields, orchards, stables, homes, and crops. It appears to be a sort of bucolic oasis in the midst of the surrounding dry lands. Yet despite the agricultural appearance of the South Valley, its agricultural activities often are not accounted for in USDA surveys of agriculture because few of the holdings there earn more than \$1,000 annually from agricultural sales<sup>2</sup>.

We surveyed the residents of the South Valley to discover what they produced—how they used the land and water near a growing city and in a dry state where both land and water are valuable. We asked what was most important to them in their use of the land, their farming and irrigation practices, their marketing of agricultural products, and their perceptions of obstacles and opportunities confronting South Valley agriculture.

## METHODS

Potential survey participants were selected from a list of agricultural irrigation customers who receive water from the Middle Rio Grande Conservancy District (MRGCD). Individuals who lived outside the South Valley area were removed from the list. A random sample of names was selected from the list of water customers with addresses located in the South Valley. We interviewed them by telephone about the crops and livestock they produced, the technical methods they used, their agricultural incomes, the size of their holdings, and what was important to them as they made their agricultural production decisions. Our questions asked about both the 2008 and 2009 growing seasons. A total of 57 respondents replied to our survey questions and provided usable data, although not all respondents provided answers to all questions.

The protocol of this survey research was approved by the New Mexico State University Institutional Review Board. The survey research was part of a larger project that has the goal of providing information that will contribute to improved South Valley irrigation water management and agricultural sustainability in the region.

## RESULTS

### Roles

Our first question asked the survey participants about their involvement in agriculture. The possible responses were Farmer, Rancher, Small Grower, Agricultural Research, Land Owner/Rural Resident Only, and Not Involved. We had only one person mention they were an agricultural advocate and none responded with Agricultural Research. The responses are summarized in Figure 1; each survey respondent could pick up to two roles.

### Agricultural Gross Sales and Acreage

Most of the South Valley survey respondents reported low levels of agricultural gross sales. Figure 2 summarizes their responses to a question about their total annual agricultural income. Several survey participants refused to answer this question.

The survey results reported in Figure 2 are consistent with the lack of official USDA data for agriculture in regions such as New Mexico’s South Valley (e.g., Bernalillo County). Of the 16 respondents willing to provide information about their agricultural earnings, 12 fell below the USDA’s reporting threshold, and only four had agricultural earnings high enough to likely be enumerated for the Census of Agriculture or for other USDA agricultural data collection efforts. These results are also consistent with the commonly observed trend for U.S. farms to fall largely into two categories: a small number of large farms with high levels of gross sales and a large number

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<sup>2</sup>The USDA’s National Agricultural Statistics Service (NASS) defines a farm as an operation that produces and sells, or would normally produce and sell, \$1,000 or more of agricultural products per year.

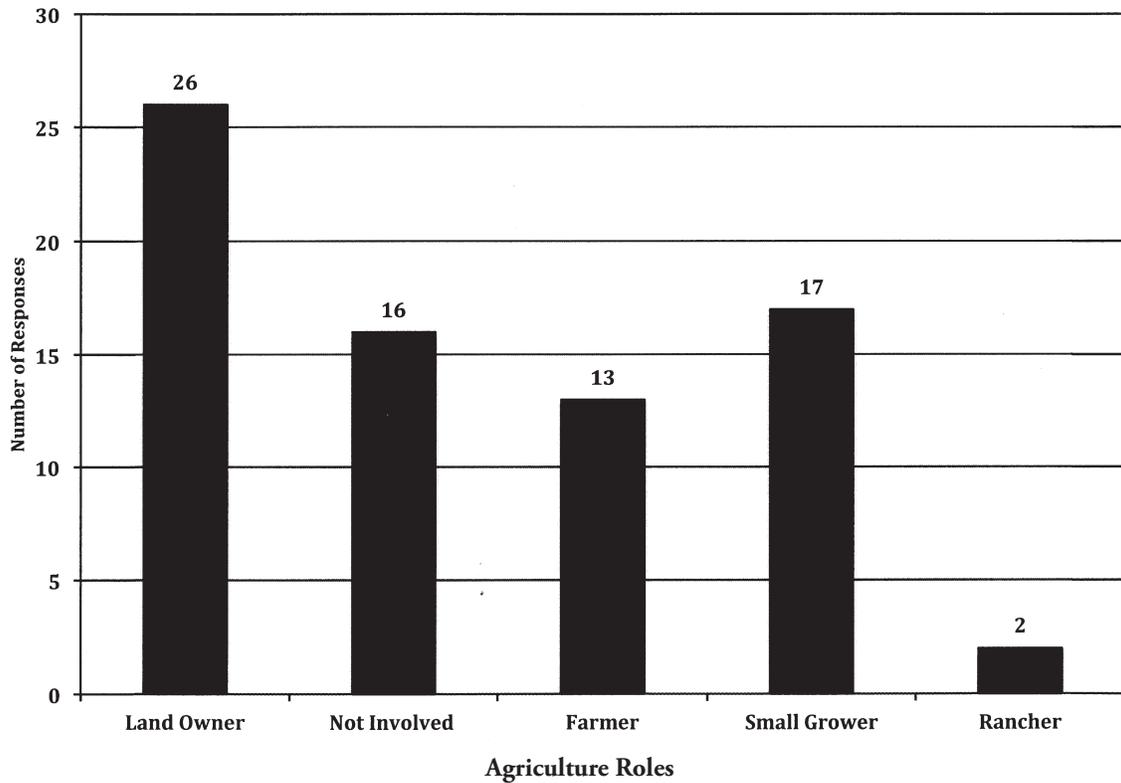


Figure 1. Agricultural roles reported by South Valley agricultural survey participants.

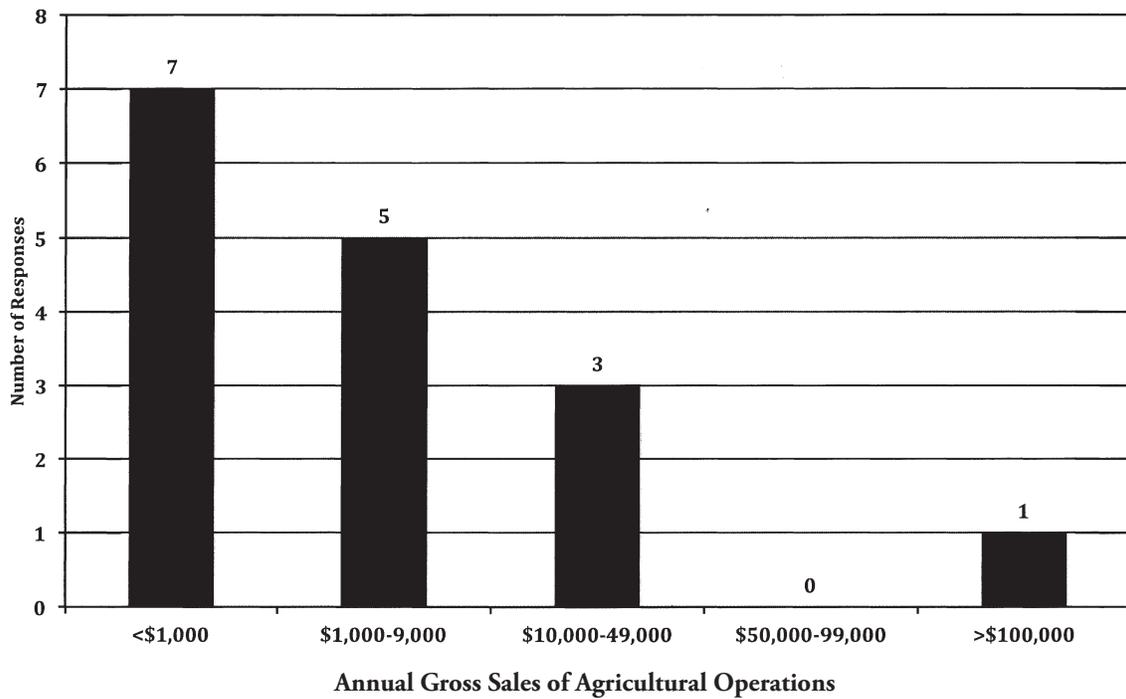


Figure 2. Annual agricultural gross sales reported by South Valley agricultural survey participants.

of small farms providing small, secondary incomes (with few or no commodity sales) to their operators.

Most participants in the South Valley agriculture survey farmed a small number of acres. The average farm size was 8.65 acres, with the smallest farm reported as 1.45 acres and the largest as 40 acres.

### **Crop Production**

Survey participants were asked about the agricultural crops they produced in 2008 and 2009. A few participants chose to report only 2008 production. Figures 3 and 4 show their answers.

### **Livestock Production**

A majority of survey respondents kept livestock on their farms (horses, goats, chickens, cows, sheep, and pigs). When asked why they keep livestock, respondents indicated it was for personal use and consumption, a hobby, to sell eggs, for weed and grass control, for rodeos, or to earn a little cash. All survey participants who reported keeping livestock reported the same livestock types in both 2008 and 2009. Figure 5 summarizes their livestock production responses.

A few survey participants provided information about the specific breeds of livestock kept on their South Valley farms. They mentioned Quarter, Thoroughbred, and Arabian horses; Red Angus, Black Angus, Black Baldy, Limousin, and Hereford cows; Rhode Island Red chickens; and Barbados and Suffolk sheep.

### **Water Use and Improvements**

The most frequently reported form of crop watering was flood irrigation. Two respondents used drip irrigation, on a total of 0.75 acre. Four survey respondents used high-flow turnouts, irrigating a total of 54.5 acres. Eleven respondents had concrete-lined ditches on their farms. Seven respondents had laser leveled their fields at some point in time.

### **Insect and Weed Control**

Only two respondents used insecticides to actively manage insect pests on their farms. For weed control, three respondents used cultivation or mowing and six applied herbicides.

### **Weather and Irrigation Scheduling**

Six respondents got their weather reports from television news sources, while one used the weather.com website. Six survey participants said they change their irrigation schedule due to weather, generally by not watering when it rains; eight said they do not change their irrigation schedule in response to the weather. When asked if better weather reports would be useful to them, six respondents said yes, two said maybe, and five said no.

### **Agricultural Marketing**

Almost all of the respondents personally do the marketing of their agricultural output. Two respondents reported that other family members are responsible for the marketing, another employed a consultant, and one had a neighbor who marketed the respondent's products. When asked where they sell their agricultural products, the most frequent response was to neighbors, usually in return for cash payment. Only three respondents reported hiring any employees to help with their agricultural production or marketing activities. Some respondents reported bartering arrangements (e.g., exchanging pasture grazing for meat). Survey participants were also asked about their specific agricultural marketing practices; Figure 6 summarizes their responses. Marketing locations or outlets in the "Other" category shown in Figure 6 include advertising in the newspaper, local customers, auctions, giving it to family, and keeping it at home or not selling.

### **Agricultural Objectives**

The survey included a question that asked respondents to assess the importance of different objectives for their farming operations. The objectives they were given to choose from were minimize production cost, maximize income from sales of agricultural products, ensure farm survival, hold on to land until it can be developed, increase farm size, increase crop quality and reputation, increase leisure time, decrease financial risk, and preserve agricultural lifestyle. In response to the objectives question, only one respondent reported that it was a primary source of household income. Several people indicated that agriculture is a secondary source of household income, while others stated it is a hobby or fun pastime, a retirement activity, or a way to produce feed for their horses.

Survey participants were asked to rank the nine agricultural objectives in order of importance to them. These are the objectives they consider when managing their land or making decisions about their farms. Figure 7 summarizes their responses for their top-ranked agricultural objectives.

Figure 8 shows survey respondents' top three agricultural objectives, weighted such that their first objective was assigned three points, their second-ranked objective was assigned two points, and their third-ranked objective was assigned one point. The most important agricultural objective for the South Valley agricultural survey participants was to preserve an agricultural lifestyle. This indicates that they highly value non-monetary aspects of their small farms. The next most important goals were to maximize income and to ensure farm survival (Figure 7). The weighted agricultural objective data presented in Figure 8 show that preserving the agricultural lifestyle is a primary goal of the respondents, followed by ensuring farm survival. The traditional

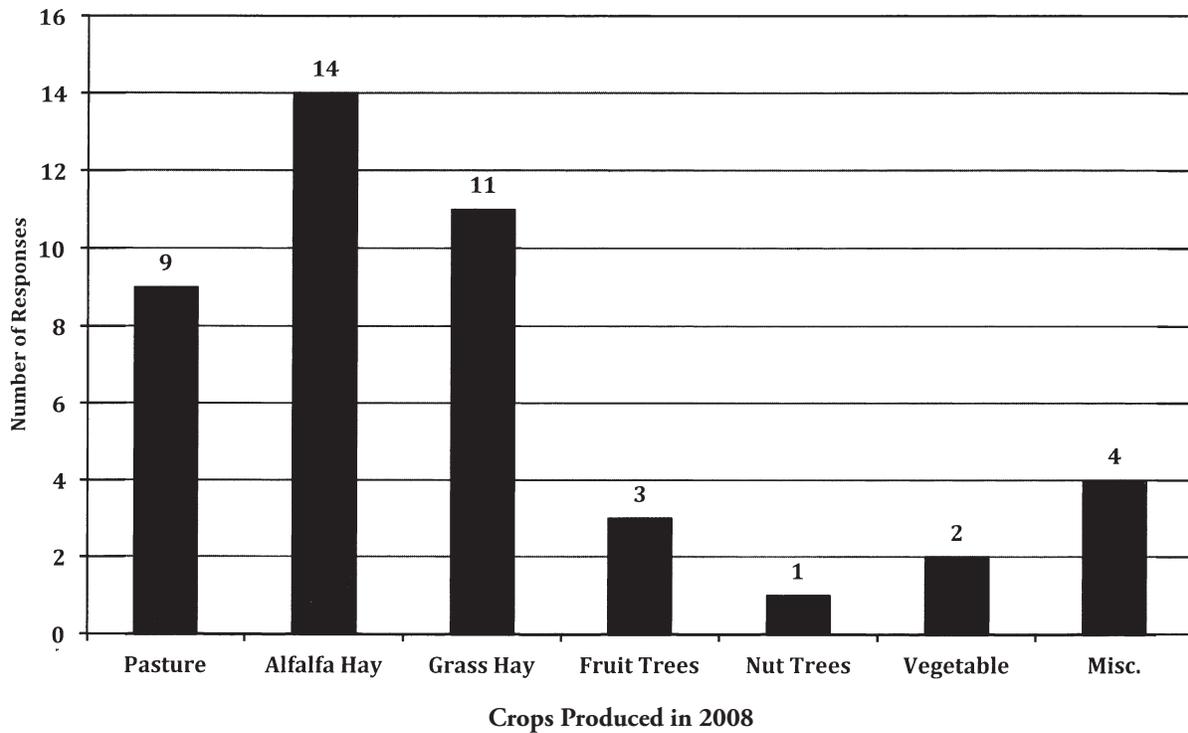


Figure 3. South Valley agricultural survey respondents' 2008 crop production.

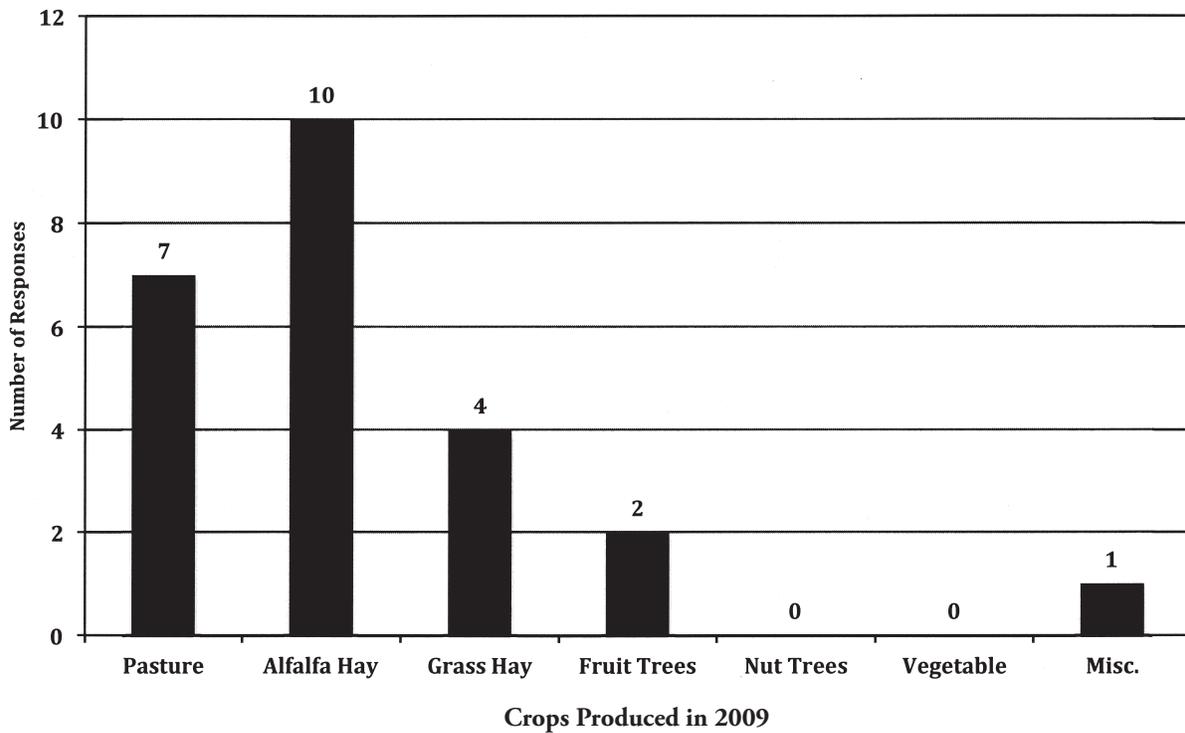


Figure 4. South Valley agricultural survey respondents' 2009 crop production.

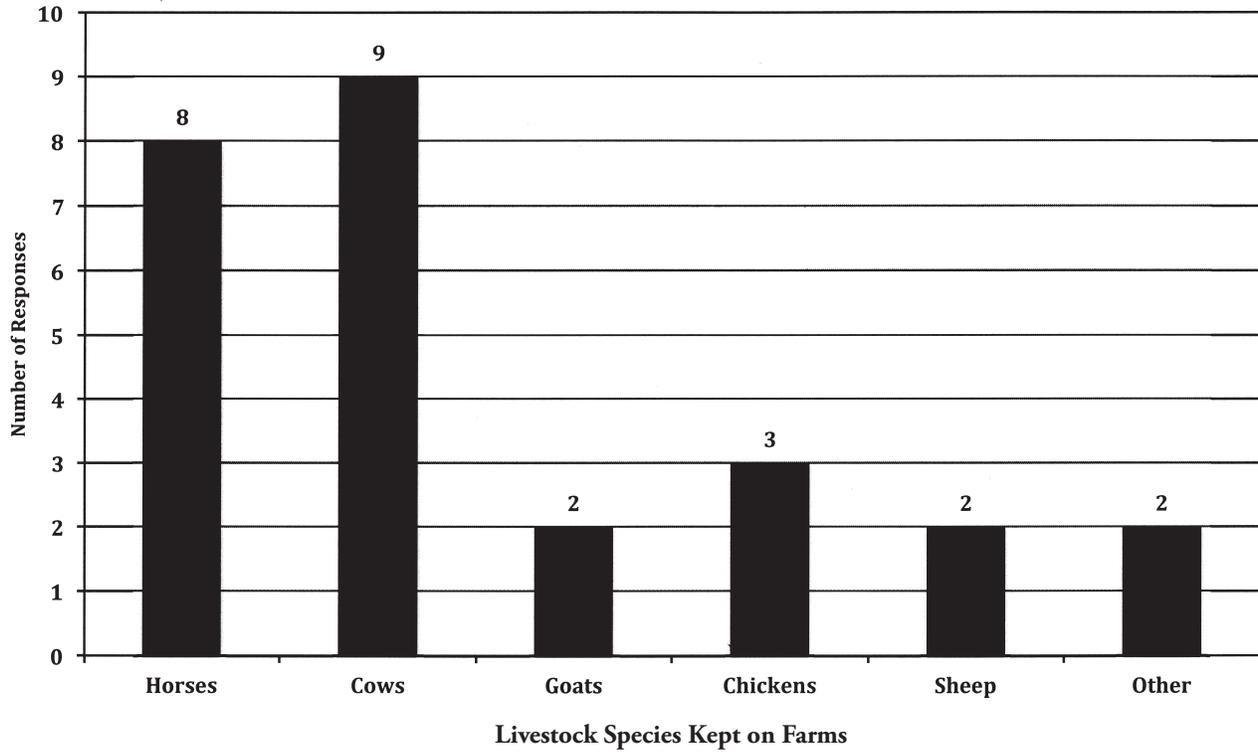


Figure 5. Livestock reported kept by South Valley agricultural survey participants in 2008 and 2009.

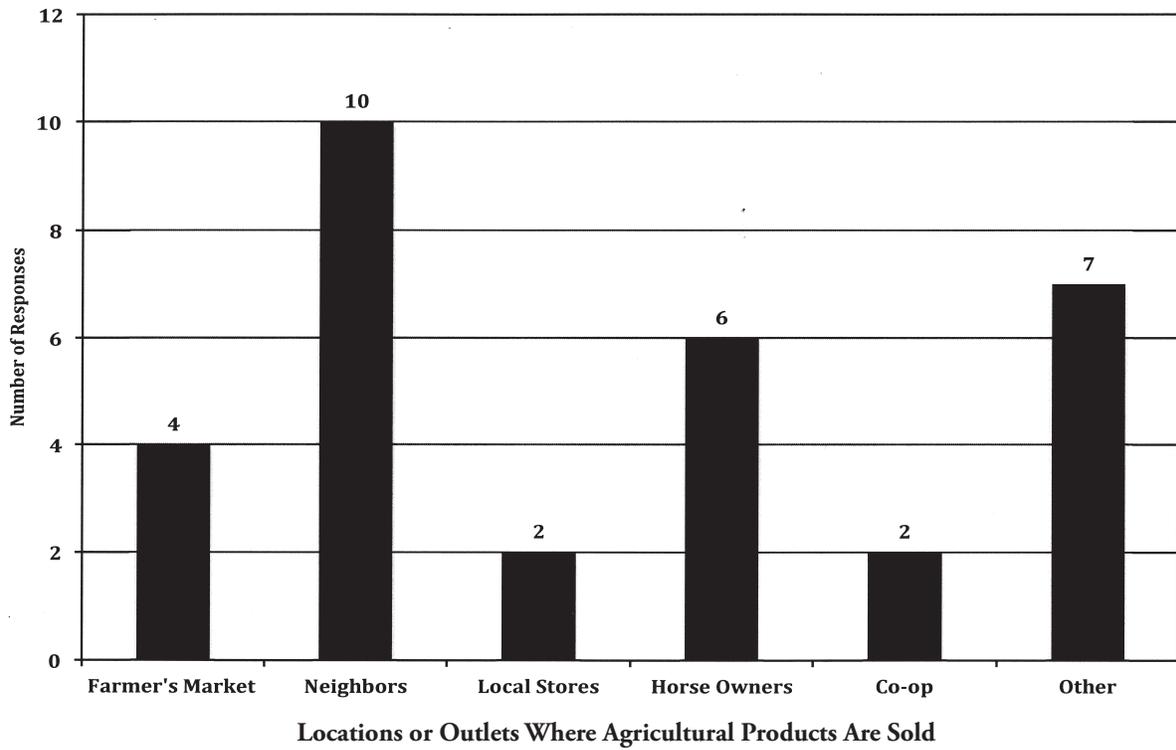


Figure 6. Locations or outlets where South Valley agricultural survey participants sell their products.

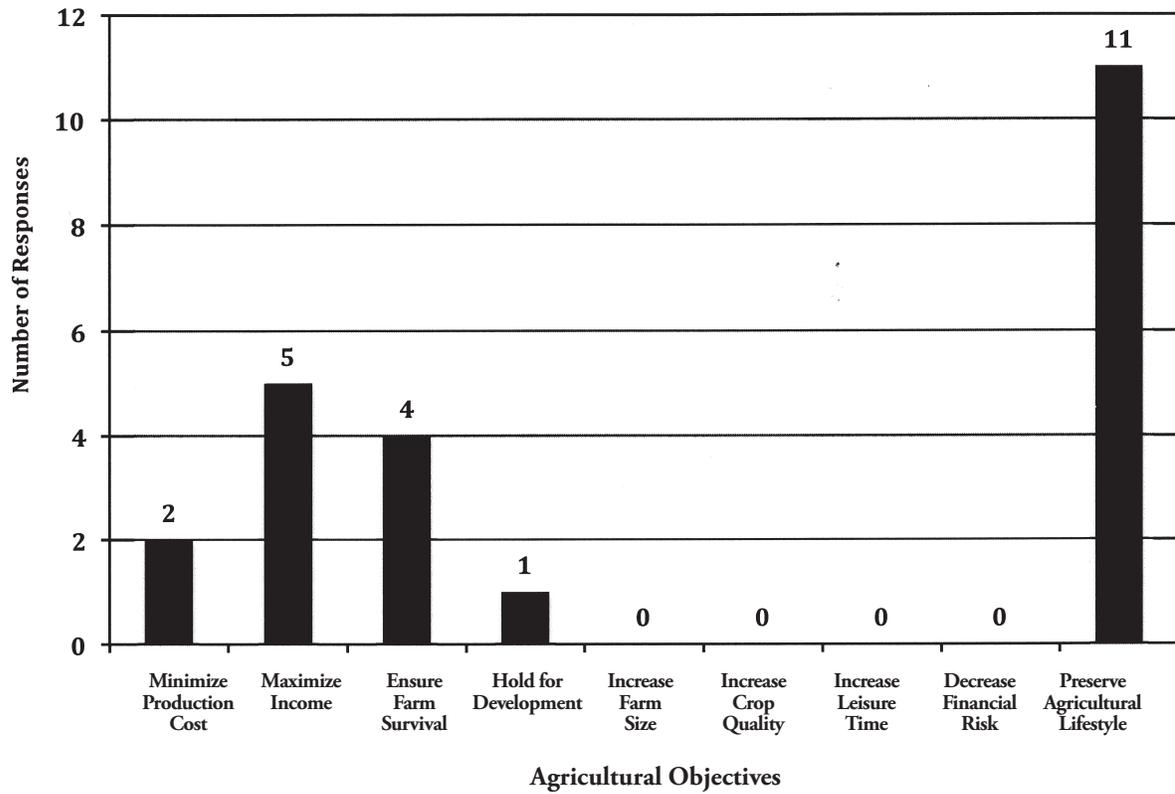


Figure 7. South Valley agricultural survey participants' top-ranked agricultural objectives.

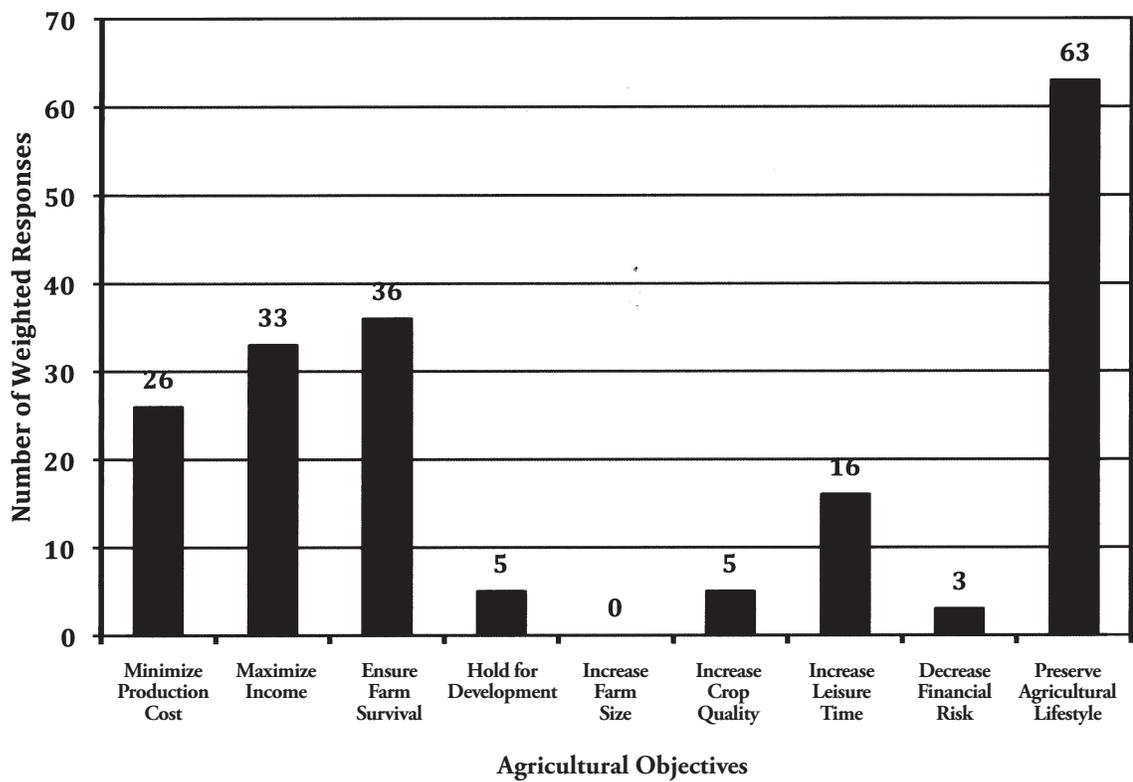


Figure 8. South Valley agricultural survey participants' weighted top three ranked agricultural objectives.

economic objectives of maximizing farm income and minimizing production costs were the third and fourth objectives identified using the weighting scheme.

The least-popular objective—cited by a single survey respondent—was to hold the land for development. This respondent appears to value future payoffs more than current agricultural use of their land. Although only one respondent cited this objective, it conflicts the most with any of the other objectives presented to the survey participants and is clearly not compatible with preserving an agricultural lifestyle.

### **Future of Local Agriculture**

As part of the survey, respondents were asked an open-ended question regarding their opinion of local agriculture and its future. The comments cover a range of reasons or topics, which have been condensed into three broad categories: lack of technical knowledge, lack of capital, and cultural issues. Several respondents noted that many irrigators in the region lack knowledge about their soils and the relationships between weather and crop production, and also have little understanding of good irrigation and agronomic practices. Some respondents stated that there is a widespread lack of capital to invest in new agricultural (including irrigation) technologies on small-scale farms in the region, and a few stated that local culture, traditions, and attitudes are obstacles to increasing agricultural production. The term “apathy” was used by some respondents, who indicated that many South Valley residents of small-scale farms are too old to significantly change their agricultural practices, and that agriculture is more of a lifestyle, hobby, or garden rather than an income-generating enterprise. Some respondents stated that it was difficult to make a profit from their small farms; that farmers in the region are unorganized, lack information, and are not willing to take risks; and that crime in the region is an impediment to agricultural growth and development.

### **CONCLUSIONS**

Operators of small, irrigated farms in the South Valley have diverse agricultural objectives and diverse farms. Their farms provide agricultural lifestyle opportunities that are highly valued by residents. The objectives of South Valley small farm operators are not primarily oriented toward increasing agricultural incomes derived from the land.

Although land and water resources in the South Valley are used in agricultural pursuits, the small size and non-commercial nature of many South Valley farms means that very little data and information exist about those farming operations. This project attempted to generate information about South Valley farms; however, many of the individuals we contacted through the survey declined to participate or refused to answer all of the survey questions. Attempts to contact many of the other small farm operators or residents on the list of MRGCD water users were unsuccessful. Although the data and information presented in this report are limited, they provide some additional insight into the South Valley farming community.

### **ACKNOWLEDGMENTS**

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