September 2008

EDR 08-09

Economic Development Report

Colorado State University Extension

Department of Agricultural and Resource Economics, Fort Collins, CO 80523-1172
http://dare.colostate.edu/pubs

THE FUTURE OF COLORADO AGRITOURISM: A LOOK AT CURRENT AND FUTURE PARTICIPATION DECISIONS

Yuko Onozaka, Martha Sullins and Dawn Thilmany [1]

Tourism based on agricultural resources (agritourism) and local history and lifestyles (heritage tourism) is a growing sector in Colorado, with strong potential for income generation for small and mid-size farms and ranches in rural counties. In fact, the US Department of Agriculture first collected data on agritourism in 2002 and found that 867 Colorado farm and ranch businesses in 59 counties—nearly 10% of all farms and ranches—derived some income from recreational sources. This revenue contributed 11% to total farm income for Colorado producers, totaling over $12 million (US Census of Agriculture, 2002). According to these data, farm- and ranch-level economic activity from agritourism is higher in Colorado than in other states in the intermountain West, where the income derived from agritourism averages about 7%.

Recent attention given to the potential opportunities to expand the role of agritourism has led to research and outreach programs aimed at supporting growth among enterprises and communities who have indicated interest. One crucial step in this process is to explore what drives or constrains future visitation to Colorado ranches, and what actions might be taken to best leverage the momentum this industry has exhibited.

To inform this community and economic development approach, Colorado State University conducted a survey of travelers to and within Colorado in early 2007 to assess total visitation, incidence of agritourism participation, and categories of travel expenditures. To explore the future prospects for this tourism sector and enhance agritourism planning, the study also asked travelers about their intentions to travel in the future, the potential role of agritourism in those travel plans, and estimates of how they would spend their time and money on those trips. The survey results about travelers' future plans and the marketing and promotion implications provide the basis for this paper.

The Role of Agritourism during Visitors' Most Recent Trips to Colorado

In a previous paper on the travel behavior of Coloradans and nearby metro area residents in Arizona, New Mexico and Utah, we found that travelers are increasingly interested in integrating agritourism experiences into their travel plans. Out of 1,003 total respondents, 246 reported that agritourism was a primary or secondary reason for their trip to Colorado, while 189 engaged in unplanned agritourism. More details on the survey are summarized in Thilmany et al (2007).

[1] The authors are Research Associate, County Information Specialist, and Professor , respectively, with CSU Extension and in the Department of Agricultural and Resource Economics at Colorado State University. Contact information is thilmany@lamar.colostate.edu, (970) 491-7220.

From the 2007 survey, 398 of 503 in-state respondents said they traveled to areas of Colorado where they did not reside at some time during 2005 or 2006. All 500 out-of-state respondents were selected because they had made at least one trip to Colorado during this time period. Of these, about half of the respondents from both in- and out-of-state indicated that they participated in agritourism activities during their most recent trips to Colorado. In order to segment travelers by their relative interest in agritourism and the role agritourism played in their trip plans, survey participants were asked to categorize themselves into one of three groups:

1. Primary agritourists – The main purpose of the trip was to participate in agritourism activities;

2. Secondary agritourists – Visitors who traveled for other reasons, but did plan to extend their stay by at least one day to participate in agritourism activities; and

3. Unplanned agritourists – Visitors who did not initially plan on participating in agritourism activities, but were drawn to these activities while traveling in-state for other reasons.

Figure 1 shows the proportion of in- and out-of-state travelers in each of these three groups. Differences between Coloradans and out-of-state visitors is likely due to the level of familiarity of "locals" vs. more distant visitors, and is realistic given that few agritourism enterprises do any broadcast marketing campaigns.

It is important to understand differences among primary, secondary, and unplanned agritourists in order to develop marketing strategies targeted at each traveler group. In terms of marketing, primary agritourists' intention to participate in agritourism occurred before travel commenced. Meanwhile, unplanned agritourists decided to participate at some point during their trip, perhaps in response to marketing materials they encountered (i.e., a brochure they picked up or a road sign they saw during their travels). These differences influence the effectiveness of various marketing strategies that agritourism enterprises may use to target specific consumer groups.

A statistical analysis of visitors defined as primary, secondary, or unplanned agritourists helped us to ascertain how these travelers differ from each other, and from those who are not participating in any agritourism activities (which is the baseline for this analysis). Table 1 summarizes the results of this analysis. The plus sign

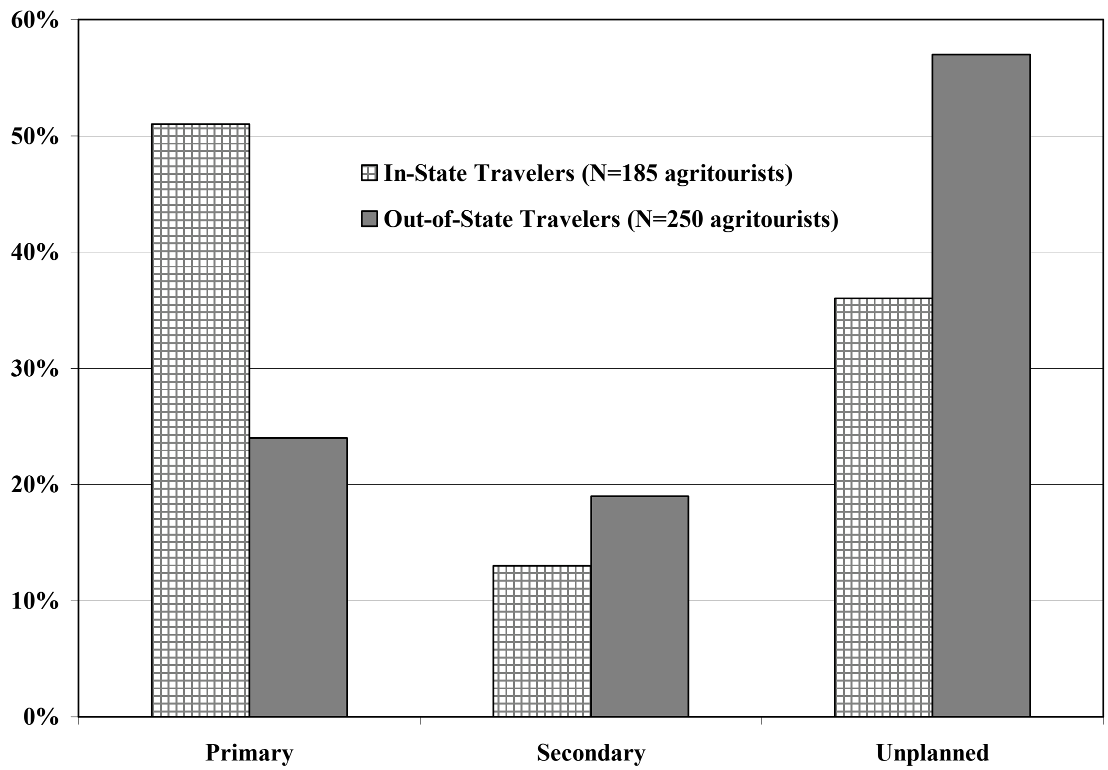

Figure 1. Share of primary, secondary or unplanned agritourists

(+) or minus sign (-) indicate that a person with this characteristic is more or less likely to fall in this category, while a blank means the factor does not significantly affect the importance of agritourism.

Those likely to engage in agritourism in any way (indicated by the positive relationships shown for the first 4 variables in the table above), tend to use resources from the Colorado Tourism Office, as well as referrals from other people. Also, agritourists as a group tend to camp more, and spend more on their trips (regardless of the trip purpose). With the exception of the unplanned agritourists, they tend to spend more time (a greater number of nights) on their trips. Lastly, all categories of agritourists tend to travel the least in winter (when the fewest agritourism activities are available).

Those traveling with agritourism as a primary trip purpose tend to be in-state travelers on leisure trips. Secondary agritourists tend to travel for business, and plan to incorporate some agritourism into their trips.

Unplanned agritourists are leisure travelers visiting friends and family (and staying with them, which may be their means of learning about local agritourism activities). They are not high-income travelers, but they do tend to spend more on their trips, relative to those who do not engage in agritourism at all.

Future Participation

Survey respondents were also asked about their future plans to visit Colorado or areas of Colorado where they do not reside, within the following time periods: a) 6 months; b) within one year; c) within the next two years; or d) at some later point in time. Figure 2 summarizes initial responses about whether respondents planned to visit Colorado during 2007. Among those who planned to visit Colorado in 2007 (phrased as "in the coming year" in the January 2007 survey), the majority—82 percent of in-state and 89 percent of out-of-state respondents—indicated that they DO plan to participate in agritourism activities.

Table 1. Factors Affecting Importance of Agritourism to Travel Plans

	Primary Agritourists	Secondary Agritourists	Unplanned Agritourists
Use Colorado Tourism Office planning resources	+	+	+
Use People as Planning Tool	+	+	+
Stay at Camp Sites	+	+	+
Higher Trip Expenditure	+	+	+
Number of Nights Spent	+	+	
On Leisure Trip	+		+
On Business Trip		+	
Visiting Friends			+
Stay with Friends			+
Winter Trip	–	–	–
Out-of-State	–		
Single		–	–
30 years or older		–	
Income $75,-125,000			–

For those who were planning on traveling to or around the state, they were asked how long they intended to spend in-state, as a precursor to calculating future expenditures, and if they were going to increase the length of their visit. Figure 3 summarizes the number of nights people are planning to spend on their next trip, for those who intended to visit again in 2007. As one may expect, in-state travelers plan to spend fewer nights compared to out-of-state travelers (2 nights compared to 3-5 nights for out-of state).

Respondents were asked how much they expected to spend on transportation, lodging, food, participation fees, souvenirs and local products during their next trip to Colorado (Table 2). As expected, out-of-state travelers expect to spend 3 times more on transportation and 1.5 times more on lodging than in-state travelers. This may be, in part, because out-of-state travelers are planning to spend a longer time period on their next trip to Colorado than in-state travelers. Out-of-state travelers also expect to spend more for souvenirs and local products—an important finding given its implications for encouraging networking and referrals among local tourism enterprises, their community retail partners and producers of value-added goods that may be perceived as unique finds or souvenirs of the visitor experience.

One potential planning challenge for communities marketing agritourism experiences or enterprises deciding on where they may focus future growth may be determining the types of activities that are of greatest interest and appeal to future visitors, in order to develop and promote the appropriate types and mix of choices that will attract potential visitors.

Survey respondents were given a menu and asked to choose the activities in which they would like to participate, based on the time required to complete the activity and the cost per person for participation.[2] In an effort to make intentions realistic, respondents were instructed not to exceed the expected amount of time and money they set in previous questions. Thus, they were constrained from picking all the activities they were interested in because the cost of activities could not exceed the budget and time constraints they had imposed for their next trip.

Plans for Activities on Future Trips

Agritourism activities were grouped into three broad categories: on farm/ranch site activities, food-based activities, and heritage activities. Farm- and ranch-based activities were subdivided into two categories:

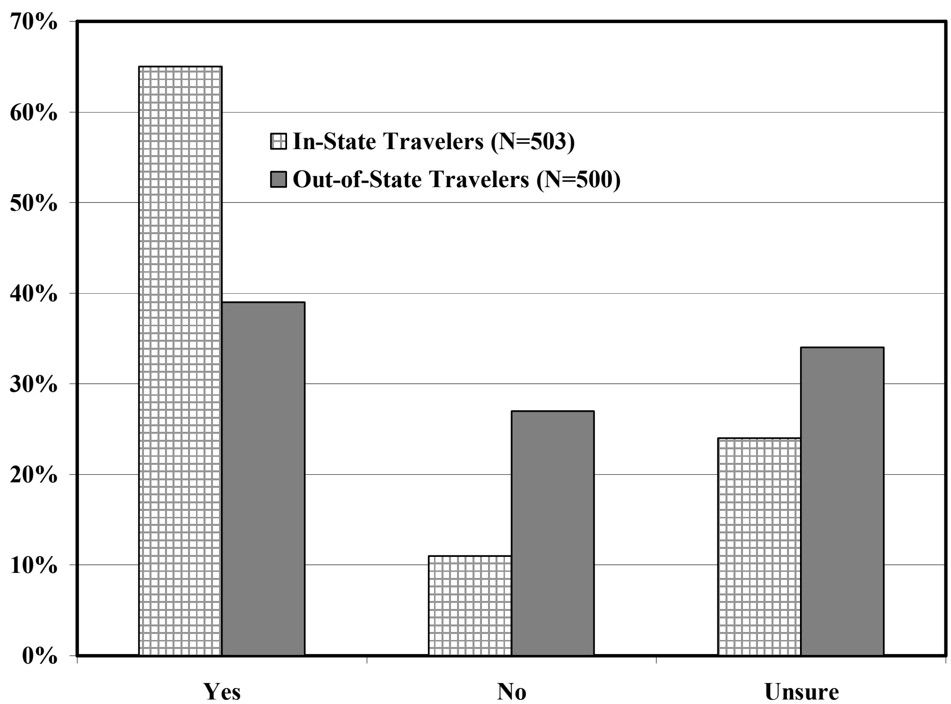

Figure 2. Stated intentions to visit or travel within Colorado in 2007

[2] The time required and cost per person were selected to represent a "typical" case for each activity.

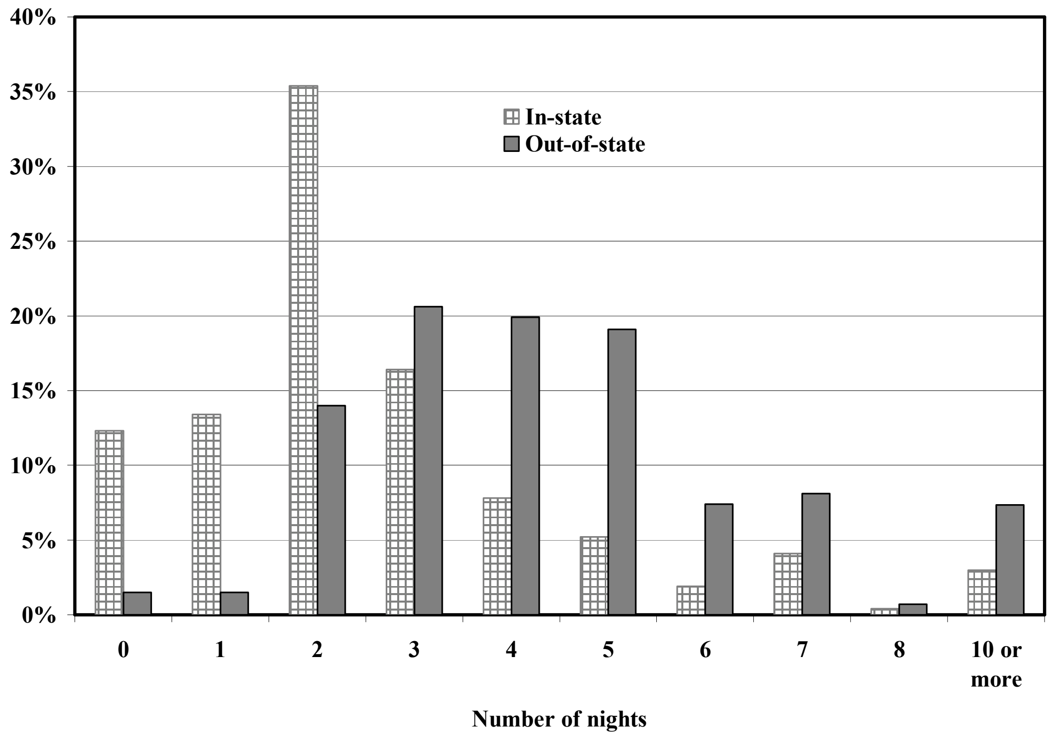

Figure 3. Number of nights respondents intend to stay during next trip to or within Colorado

Table 2. Summary of Expected Travel Expenses by Category

			Mean	Min	Max	N
In-State	Per Person Expenditures	Lodging	$69	$0	$700	239
		Food	$48	$0	$300	272
		Activities/ Entertainment	$36	$0	$700	272
		Transportation	$32	$0	$250	272
	Total Expenditure by Party	Souvenirs and Local Products	$36	$0	$400	272
Out-of-State	Per Person Expenditures	Transportation	$106	$0	$750	145
		Lodging	$105	$0	$1500	143
		Food	$93	$0	$500	145
		Activities/ Entertainment	$64	$0	$450	145
	Total Expenditure by Party	Souvenirs and Local Products	$84	$0	$500	145

wildlife and educational activities (such as bird watching, camping, children's camps or photography which tend to be more passive) and recreational activities (such as hunting, fishing, horseback-riding and snowmobiling which tend to be more physically demanding and require tourists to engage in more planning before they participate). A final section included non-agritourism activities in order to see what other types of activities tourists would combine with their agritourism activities.

Table 3. Intended Participation Rates for Highest-Ranked Activities

Activity	Travel Time to Site & Activity	Cost Per Person $	In-State (N=272)	Out-of-State (N=272)	Total (N=272)	Category
Other no-cost leisure (walks, biking, hikes, television, camping, sightseeing, etc.)	Half day	0	49%	51%	50%	O
Visits with family/friends or business activities	Half day	0	36%	46%	40%	O
Visit to state or national park or National Forest	Half day	25	33%	37%	34%	O
Farmers markets (includes food/gift purchases)	Half day	25	32%	33%	32%	C
Other shopping	Half day	50	27%	37%	30%	O
Historical museums and sites (ag history, machinery, pioneer cabin sites)	Half day	10	26%	32%	29%	H
Other activities (skiing, water parks, amusement parks, golf, movies, etc), no equipment	Half day	40	21%	27%	23%	O
Harvest and food festivals	Full day	40	20%	22%	21%	C
Winery tour, visit and/or tasting	Half day	35	19%	24%	21%	C
Other food and culinary experiences, includes tour of production or processing	Half day	15	18%	23%	20%	C
Microbrew tour, visit and/or tasting	Half day	20	15%	27%	19%	C
Water activities (swimming, rafting, boating, etc)	Half day	25	17%	19%	18%	O
Educational tour of fruit orchard, including $10 food and gifts	Half day	15	13%	22%	16%	E
Horseback riding with guide	Half day	60	14%	16%	15%	R
U-pick operation, includes food harvested	Half day	10	14%	13%	13%	E
Corn maze, pumpkin patch or other agritainment	Half day	15	13%	13%	13%	E
Seeing, handling farm/ranch animals	Half day	7	10%	13%	11%	E
Rodeo or livestock based activity (stock show, horse show, county fair)	Full day	80	13%	8%	11%	H
On-ranch water activities (swimming, rafting, boating, etc)	Half day	50	8%	12%	10%	R
Sleigh rides (or hay ride in summer) with light meal	Half day	35	8%	8%	8%	E

Note: Multiple responses were allowed from each respondent up to the point where monetary and time budgets were exhausted.
Activity categories: O=Other non-agritourism; H=Heritage; C=Culinary; E=Educational activity on-farm/ranch; R=Recreational activity on-farm/ranch.

Table 3 summarizes the participation rates for the top 20 activities chosen by 417 respondents who planned to visit or travel around Colorado in 2007, focusing on visitors who indicated that agritourism would be either the primary or secondary reason for their trip, since this group is more easily targeted through future marketing efforts. The participation rates are grouped by in- and out-of-state travelers, and for the combined set.

First, across all groups, respondents chose no-cost, non-agritourism activities above all others. These activities were then bundled with agritourism activities to round out the visit (see Table 4 for additional detail). The top agritourism activities chosen by respondents are in the culinary category, followed by heritage, and then educational and recreational on-farm/ranch activities. Most people also preferred the half-day activities to those that would last a full day (and perhaps cost more as well).

Table 4 shows the summary participation rates by activity category for in- and out-of-state tourists, and for all visitors. The table includes the cross-participation rate across different activity categories in order to assess the potential complementarities among activities. Among agritourism activities, on farm/ranch activities garner the highest intended participation rate—more than half the respondents indicated that they will participate in at least one activity in this category. Other findings include:

- Food-based activities have fairly high intended participation rates—about 50 percent;
- Heritage activities had the lowest participation rates among the three, but more than 30 percent of respondents intended to participate in them; and
- Overall, non-agritourism activities had the highest participation rates, which were greater for out-of-state than for in-state respondents.

Since respondents could choose as many activities as their schedule and budget permit, it is possible to participate in multiple categories. It is also worth noting that respondents showed interest in participating in activities across categories:

- 35 percent of respondents indicated that they would participate in both farm/ranch based and food-based activities;
- 25 percent of respondents showed interest in participating in on-farm/ranch and heritage, and food-based and heritage activities; and

Table 4. Participation Rate by Activity Category

	In-State (N=272)	Out-of-State (N=145)	All (N=417)
Non-agritourism activities	64%	73%	67%
On Farm/ranch site activities (both educational and recreational)	50%	59%	53%
Food-based activities	47%	51%	49%
On farm/ranch AND Non-agritourism	**41%**	**48%**	**43%**
Food-based AND Non-agritourism	**41%**	**46%**	**42%**
On farm/ranch AND Food-based activities	**35%**	**36%**	**35%**
Heritage activities	32%	37%	34%
On Farm/ranch, Food-based AND Non-agritourism	31%	34%	32%
Heritage AND Non-agritourism	29%	32%	30%
Food-based AND heritage activities	25%	28%	26%
On farm/ranch AND heritage activities	24%	27%	25%
Food-based, Heritage AND Non-agritourism	23%	26%	24%
On Farm/ranch, Heritage AND Non-agritourism	22%	24%	23%
On Farm/ranch, Food-based AND Heritage activities	21%	23%	21%
All four categories	19%	22%	20%

Note: Categories in bold-face represent bundled agritourism activities with the highest participation rates.

- 20 percent of respondents indicated that they planned to participate in all three categories.

Thus, among people who are planning to participate in agritourism activities, cross-marketing may be effective and should be encouraged.

Another notable pattern is the high cross-participation rate with non-agritourism activities. For example, 41 percent of in-state and 48 percent of out-of-state respondents indicated that they will participate in both on-farm/ranch activities and non-agritourism activities. In short, the majority (roughly 80 percent) are also participating in non-agritourism activities. Thus, a marketing partnership extending beyond agritourism businesses to incorporate other community businesses may be beneficial in drawing a greater number of agritourists to a region.

Agritourism and Non-Agritourism Activity Expenditures

Table 5 shows the summary of *per person* expenditures on different activity categories, based on the responses to the trip activity planning shown in Table 3. Note that the rankings are nearly identical, but the expenditure levels differ between in- and out-of-state travelers. The high expenditure on recreational farm/ranch activities is an important finding, but note that it partially reflects the higher prices set for these activities compared to other activities (on the other hand, since they are still selected by those with limited budgets, it reveals a strong relative interest in participation among future visitors).

Linking Participation in Past Activities to Future Activities

Establishing loyalty to specific agritourism activities and/or operations is important, yet challenging, as it involves building a loyal customer base or, alternatively, finding ways to reinvent a unique Colorado experience (or continue providing a consistent, positive experience). To try to ascertain how people's past experiences shape their future plans, we asked those who participated in a specific agritourism activity during their last trip to indicate if they would engage in this activity again on their next trip.

There are significantly more repeat participants among in-state travelers. However, it is encouraging that nearly 40 percent of out-of-state travelers said they would return to Colorado to participate in agritourism activities over the next 18 months (from January 2007 to July 2008 based on the survey's distribution date).

More importantly, do tourists tend to repeat similar activities on their subsequent visits, or do they venture into new types of activities? Does one type of activity potentially serve as a gateway to participation in other agritourism activities? Answers to these questions may influence how agritourism operations promote themselves, and the messages they share through different trip planning/marketing resources.

Table 5. Summary of Per Person Expenditures by Activity Category

		Mean	Min	Max	N
In-State	Recreational on farm/ranch activities	$77	$30	$500	69
	Heritage activities	$29	$10	$80	88
	Food-based activities	$27	$15	$40	129
	Educational on farm/ranch activities	$22	$7	$100	107
	Non-agritourism activities	$16	$0	$50	174
Out-of-State	Recreational on farm/ranch activities	$66	$30	$225	48
	Food-based activities	$26	$15	$40	74
	Heritage activities	$21	$10	$80	54
	Educational on farm/ranch activities	$21	$7	$63	71
	Non-agritourism activities	$18	$0	$50	106

To explore if past participation significantly affected future participation plans, including among those who do not plan to travel to or within Colorado, we tested responses statistically (N=927). Table 6 shows the relative increase in intended participation rates if a person participated in agritourism activities during his/her previous trip. For example, if a person participated in on-farm/ranch wildlife or educational activities on his/her previous trip, the probability that he/she will participate increases (7%) for the next trip—an own-effect. This prior participation also increases the probability that s/he will participate in food-based activities (9%)—a cross-effect between two activities.

It should be noted that all of the own-effects (the relationship between prior and future participation in the same activity) are positive. This indicates that prior participation increases future participation in an activity, and implies that good marketing, combined with positive consumer experiences, will allow business owners to reap benefits over several seasons.

Overall, the only significant cross-effects are between on farm/ranch site educational activities and food-based activities. This indicates that people who have participated in food-based activities in the past are more likely to participate in farm/ranch site educational activities in the future, and vice versus. More importantly, since food-based activities can occur away from farms and closer to larger urban populations, it may suggest that these activities serve as *de facto* marketing for the agritourism industry. No such cross-effects were found among other activities.

Marketing Implications

Perhaps the most important messages from this study are lost in the numbers, trends and statistics. It appears that, overall, agritourism visitors were happy with their visits, many plan to return (especially those traveling around Colorado), and there is a lesser challenge in getting them to return or re-engage in an activity they enjoyed. Yet, to make the most of this interest and satisfaction with Colorado agritourism, operators and their partnering communities should consider some of what we learned.

The findings on types of agritourists are informative as they tell us where to place promotional information on agritourism. For example, primary agritourists could be targeted (or have their interest developed) through ads in travel and leisure Web sites and publications, especially those linked to the Colorado Tourism Office.

Secondary agritourists could be reached through materials targeted at conference planners who outline short trips or activities that can be added to round out a business trip. Unplanned agritourists appear to learn about agritourism activities through their friends and family, highlighting the importance of encouraging and sharing recommendations from satisfied visitors.

Since out-of-state travelers are typically longer-haul travelers, they are making a significant investment in the travel itself, and they may tend to spend more time and discretionary spending on their trips. However,

Table 6. Own- and Cross-Effects on Past and Future Participation Rates

		Change in Future Participation Rate (in percentage points)			
		Farm/ranch educational	Farm/ranch recreation	Food	Heritage
Participation during previous trip	Farm/ranch site wildlife & educational activities	+7%		+9%	
	Recreational farm/ranch site activities		+12%		
	Food-based activities	+7%		+15%	
	Heritage activities				+2%

Note: An empty category box indicates that no significant effects were found.

the participation summary shows that it is also common for in-state travelers to plan multi-purpose trips, as they are interested in participating in several activities across categories. Table 4 shows that food and on farm/ranch activities complement each other well, and are also commonly chosen by those who plan non-agritourism activities. Therefore, food-based activities appear to play a significant role in motivating and developing cross-marketing strategies for agritourism. Food activities are popular, often planned jointly with other farm activities, and very are likely the first impression a visitor will have of a community's agricultural assets. In short, when considering travel and tourism, complementary activities are essential to creating a threshold "destination value" to make the trip worthwhile to travelers, so cooperation is key (in contrast to a more traditional competitive culture among neighboring operations).

In short, the challenge to agritourism operations, and the communities where they are located, is to strengthen the networking and marketing connections that allow visitors to conveniently and effectively plan for trips that integrate different types of agritourism with other non-agritourism opportunities. Given the renaissance in farmers markets, food festivals, wineries and other artisan food establishments, it is realistic to assume that many communities are well-poised to exploit this opportunity.

The other encouraging message from this study is the broad and diverse interest in a number of activities, suggesting that every area of Colorado has the resource base, types of agriculture, history and potential capacity to attract some subset of visitors. The higher-priced activities were popular among some visitors, suggesting that the investment in significant facility and staffing upgrades necessary to host visitors on longer stays could be worthwhile. On the other hand, lower-cost activities are popular among other visitors, and may be a better starting point for an agricultural business owner (or community tourism team) who does not want to make a significant operational change to or investment in their current business or community development plan.

Lastly, gas prices may be the one factor that significantly alters future travel plans for Coloradans, but initial evidence and media attention around "staycations" suggests that many are simply staying closer to home, so that one might consider it an opportunity to encourage Denver residents to explore their own state rather than booking a flight to more distant destinations. Even the out-of-state visitors analyzed in this study may find that Colorado represents a closer travel alternative than other longer haul destinations, so it is not clear whether fuel costs will dampen the travel trends or simply change the relative share of local versus distant visitors.

References:

Thilmany, D., M. Sullins, and A. Ansteth. 2007. Of Wine and Wildlife: Assessing Market Potential for Colorado Agritourism. Colorado State University Economic Development Report. 07-15. June. 8 pp.

U.S. Department of Agriculture, National Agriculture Statistics Service. "The Census of Agriculture." Available at http://www.agcensus.usda.gov/.