Missouri
Agritourism Survey

A Preliminary Assessment of Agritourism in Missouri

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EXECUTIVE SUMMARY

Agritourism is receiving a great deal of attention because of the many benefits it can bring to farmers, visitors and communities. The industry has shown strong potential for growth, but greater understanding is needed to develop and promote the union of production agriculture and tourism. In response, the Missouri Department of Agriculture in partnership with the University of Missouri Department of Parks, Recreation and Tourism conducted a study to identify characteristics of agritourism farms and their offerings in terms of types and timing of activities and services provided, and number and composition of their visitors. This study also explored the impacts of agritourism on farm revenues, farmer goals, generation of employment and preservation of natural and heritage resources. This study used a questionnaire with parallel printed and electronic forms to survey 243 Missouri farms, 68% of which were engaged in agritourism.

Responding agritourism farms have greater acreage than the state average and are still in the business of farming, mainly growing specialty crops. They hold traditional family farm structures as the majority are owned and operated by an individual or a non-corporate family. Responding farmers represent an even distribution between first and multi-generational farms and farmers of different ages. Compared to their counterparts, agritourism farms are more entrepreneurial in terms of services and value-added products provided to others. All agritourism farms are actively involved in marketing their products, and the majority are using internet technology to reach their customers.

Missouri agritourism farms offer a large variety of recreational activities with education and leisure tours, u-pick crops, and observation of agricultural processes being the most popular. On average, farms offer four different recreational activities. The majority of these farms also offer at least one hospitality service, most frequently related to food and beverages. In 2008, more than one-third of agritourism farms received visitors year-round and the majority received visitors six or seven days per week. Agritourism farms received more than 1.2 Million visitors in 2008 and expect to increase that number in 2009. The most frequent types of agritourists are seniors and families with young children.

This study revealed that agritourism providers are very satisfied with their entrepreneurial venture as agritourism brings several positive economic and intrinsic benefits to themselves and their business. Agritourism farms reported higher gross sales than non-agritourism farms and more than half indicated that farm profits increased after offering recreational activities. Overall, respondents perceive that agritourism helps to accomplish their entrepreneurial goals, especially those related to growing and better serving their customers. Agritourism appears to not only bring direct revenues to the farm, but to assist in the promotion and sale of other farm products. Further, this study shows that agritourism creates employment and preserves natural and cultural American heritage.

INTRODUCTION

Study Purpose and Objectives

This report summarizes the findings of the Missouri Agritourism Survey, a research project between the Missouri Department of Agriculture (MDA) and the University of Missouri Department of Parks, Recreation and Tourism (MU-PRT). The Missouri Agritourism Survey was developed to strengthen the understanding of Agritourism in Missouri from the perspective of those farmers involved in agritourism. Specifically, this study focused on those individuals receiving visitors to their farms for recreation, leisure or tourism purposes for fifteen days or more during 2008 in Missouri.

This study included five primary objectives, as described below. This report addresses the first four objectives. The last objective will be fulfilled in future, separate reports.

1. Identify socio-demographic and firm characteristics of agritourism providers recognizing the role of internal (e.g., farm size, family labor) and external (e.g., farm location, market proximity) factors in entrepreneurial development.
2. Assess the extent of the agritourism in terms of types of activities most frequently offered, variety of activities offered, and season length.
3. Evaluate the visitation extent and nature in terms of number of visitors per season and party composition (e.g., school, group, bus, individual visitors).
4. Assess the impact of agritourism on farm sustainability (e.g., proportion on total farm revenues, promotion of other farm products).
5. Classify agritourism providers using different criteria for marketing purposes.

Study Methods

A questionnaire addressing the study objectives was developed. The questionnaire included 56 questions, which collected information in the following areas: (1) Profile of responding farmers and their farms, (2) Economic profile of responding farms, (3) Attributes of Missouri Agritourism offerings, (4) Agritourism impacts, and (5) Market indicators for Missouri Agritourism farms. Parallel questionnaires were developed in printed and electronic formats, using similar instructions, word choice and formatting.

The sample for this study was drawn from three sources: (1) MDA provided farms affiliated with their agritourism and marketing programs, (2) MU-PRT conducted an internet search for on-farm recreational activities available to visitors using key words, and (3) referrals from MU extension agents, MDA personnel, and other responding farms (snowball sampling technique). This sampling strategy resulted in a total of 592 farms. Study participants were contacted via both e-mail and U.S. Postal Service mail, upon availability of appropriate contact information. Invitations described the purpose of the study, confidentiality and privacy procedures, instructions and participation incentives. As an incentive to participate in the study, MDA offered the chance to win a one-year membership to the *AgriMissouri* program, or one of two *AgriMissouri* gift boxes filled with locally produced items among respondents.

Electronic invitations were sent on November 4, 2008, and included a personalized link to access the survey on-line. Six days after the electronic invitation was sent, a mailed invitation, including a printed survey, was sent to non-respondents. A series of two postcard and five electronic reminders, as well as a second mailing of invitations were used to encourage participation. After completing the questionnaire or requesting to be removed from the list, subjects were no longer contacted. The survey was closed on March 2, 2009, after being open for about four months. The survey produced 269 responses, representing a response rate of about half (47.7%). Analysis included 243 farms, after 26 respondents were removed because they did not match the study criteria (e.g., farms not in Missouri, farms no longer in business). Table 1 describes the sample size, number of respondents and response rate of this study.

Table 1. Study sample size and response rate.

	Total
Sample size	
Sample size	592
Invalid contact information	28
Valid subjects	564
Number of Responses	
Mailed responses	116
Electronic responses	107
Out of business reply	7
Requested removal	19
Total responses[1]	269
Valid responses[2]	243
Response Rate	
Response rate[3]	47.7%

[1] This includes 20 completed questionnaires from the snowball effect.
[2] This is the number of respondents that were included in the analysis, after 26 were excluded because did not fit the study criteria.
[3] Response rate calculated as follows: Valid Responses/Valid Subjects (i.e., 269/564).

Agritourism Definition and Study Criteria

For the purposes of this study, agritourism was defined as a farm receiving visitors for recreation, tourism or leisure activities for fifteen days or more per year. Only farms located in Missouri were included in the study. Over two-thirds of the respondents (67.6%) were currently engaged in agritourism (Table 2). Interestingly, over a third (34.7%) of those respondents not currently involved in agritourism (n=75), are planning to receive visitors in the future, suggesting a potential for growth in the Missouri agritourism sector. Also, about one-fourth (21.3%) of these 75 non-agritourism respondents have received recreational visitors in the past.

Table 2. Agritourism previous engagement and future plans of responding farms not currently offering agritourism.

	Percentage
Respondents Engaged in Agritourism	**(n = 243)**
Currently engaged in agritourism	67.6%
Not currently engaged in agritourism	32.1%
Plans for Future Agritourism Development of Non-Agritourism Farmers [1]	**(n = 75)**
Planning to receive visitors in the future	34.7%
Not planning to receive visitors in the future	65.3%
Previous Agritourism Engagement of Non-Agritourism Farmers[1]	**(n = 75)**
Did receive visitors in the past	21.3%
Did not receive visitors in the past	78.7%

[1] Only those farmers not receiving visitors were asked about their plans for future agritourism development and previous agritourism involvement.

Report Organization

Data presented in this report is organized into four sections: 1) Profile of Responding Farmers and their Farms, 2) Enterprise Profile of Responding Farms, 3) Attributes of Missouri Agritourism Offerings, and 4) Intrinsic and Economic Impacts of Agritourism. The first section includes demographic information of respondents receiving visitors to their farms, creating a profile of Missouri agritourism providers. The second section, Enterprise Profile of Responding Farms, compares respondents offering agritourism activities and those that are not to show differences in production and sales. Comparisons were conducted using Chi-square and Analysis of Variance (ANOVA) tests at a ten percent significance level (α=0.10). In the third section, respondents' agritourism involvement is explored in terms of activities, accessibility and fees. The last section, Intrinsic and Economic Impacts of Agritourism, includes information on the satisfaction and perceived benefits reported by those involved in agritourism and a comparison of employees and stewardship practices of both agritourism and non-agritourism farms.

SECTION I

PROFILE OF RESPONDING FARMERS AND THEIR FARMS

Respondents have farmlands of different acreage (Figure 1). On average, they have 333.1 acres, which is larger than the average Missouri farm (269 acres) according to the last agriculture census (USDA:NASS, 2007). Importantly, the average farm size of respondents (mean=333.1 acres) was very similar to the average acreage farmed (mean=295.5 acres) showing that agritourism farms in Missouri are still in the business of agricultural production, rather than maintaining the land exclusively for landscaping a tourism destination. Nearly one-third (30.1%) of respondents farm less than ten acres while less than a tenth (9.8%) farm 500 acres or more. The majority (67.3%) of farms are located more than thirty miles from an urban area (Figure 2), which may enhance their rural appeal. Nearly three-fourths (72.2%) are located over or within one mile of a paved road or highway, confirming the importance of visitor accessibility to the farm (Figure 3).

Figure 1. Farmland Acreage

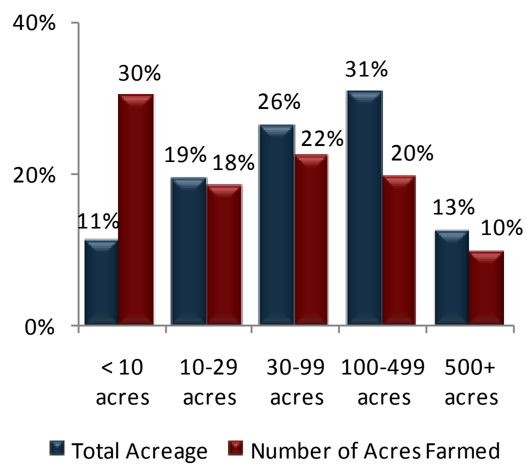


Figure 2. Distance from an Urban Area

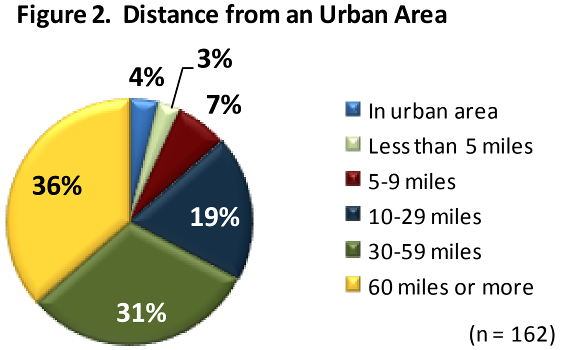
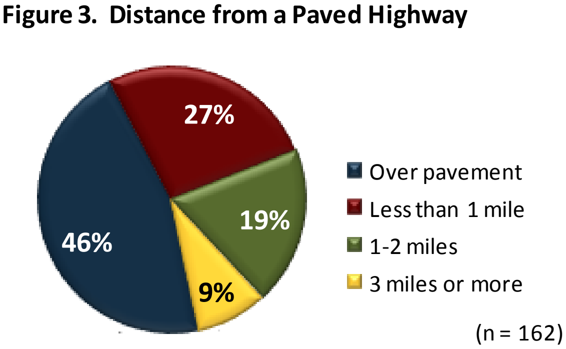


Figure 3. Distance from a Paved Highway



Almost two-thirds (65.0%) of the agritourism farms are individually (32.5%) or non-corporate family (32.5%) operated (Table 3). About one-fourth (23.9%) are incorporated family farms. Not surprisingly, the majority of responding farms indicated that the husband serves as a primary farm operator (69.6%). However, in less than half of cases (41.1%) he is the sole operator. A relatively high proportion (7.2%) of the agritourism farms have their children involved as main operators, suggesting that succession actions are already taking place in these operations. Over a quarter of respondents (28.5%) reported both the husband and wife as main farm operators.

Table 3. Ownership and operator structure of responding farms.

	Percentage
Ownership Structure	**(n =163)**
Individual ownership	32.5%
Family farm (non-corporate)	32.5%
Family farm (incorporated)	23.9%
Other organization	11.1%
Farm Main Operator	**(n = 158)**
Husband	69.4%[1]
Wife	29.3%
Parent(s)	3.6%
Child(ren)	7.2%
Other	6.8%
Husband and Wife as Main Farm Operators	**(n = 158)**
Husband only	41.1%
Wife only	12.7%
Husband and wife	28.5%
Other operators	17.7%

[1] Percentages sum to more than 100%, as respondents were able to select multiple categories.

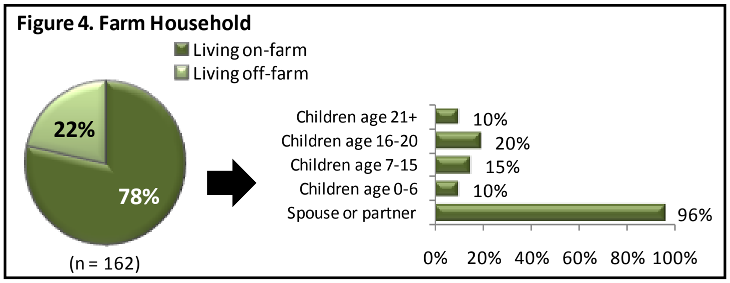
The operators of responding agritourism farms are nearly evenly divided between first-generation (48.8%) and multi-generation (50.6%) farmers, suggesting that agritourism may be an option for new entrants as well as those rooted in agriculture (Table 4). Data also show an even distribution between young and not-so-young agritourism farmers. About half (46.6%) of respondents were younger than 55 years. Over a third (34.7%) of respondents received either formal education in agriculture (17.1%) or business (17.6%). Interestingly, over a quarter (26.1%) have formal education in both agriculture and business, which may contribute to improved skills in the areas of production and marketing needed to maintain agritourism operations. Consistent with the age distribution of respondents, about a third (32.9%) are retired from a previous job.

Table 4. Profile of responding agritourism farm households.

	Percentage
Generations of Family Farmers	**(n = 156)**
First generation farmers	48.8%
Multi-generation farmers	50.6%
Unknown	0.6%
Farm Operator Age	**(n = 161)**
34 years or less	4.9%
35 – 44 years	15.5%
45 – 54 years	26.2%
55 – 64 years	33.5%
65 years or more	19.9%
Educational Background of the Operator	**(n = 153)**
Agriculture	17.1%
Business	17.6%
Agriculture and business	26.1%
Other educational area	39.2%
Retirement Status	**(n = 155)**
Retired from previous job	32.9%
Not retired	67.1%

The majority (78.4%) of respondents live on the farm, mostly with their spouse or partner (95.8%) as shown in Figure 4. A relatively high percentage (10.2%) live on-farm with their adult children, suggesting additional succession opportunities for the next generation of farmers.

Figure 4. Farm Household



SECTION II

ECONOMIC PROFILE OF RESPONDING FARMS

Agriculture Production and Enterprise Diversification

The vast majority (85.2%) of respondents produce products for commercial sale on their farms with no statistical difference between agritourism (85.2%) and non-agritourism farms (85.1%) as shown in Table 5. This was expected, for by definition agritourism occurs on working farms and other agriculture facilities (Barbieri, Mahoney and Butler, 2008). A larger proportion of farms offering agritourism activities produce commodity crops (19.5%), specialty crops (58.4%) and rare or non-traditional animals (13.6%) than non-agritourism farms (11.8%, 43.4%, and 7.9% respectively). This is not surprising because these production areas may simultaneously serve both agriculture and recreation purposes. In contrast, a larger proportion of non-agritourism farms produce livestock (32.9%) compared to agritourism farms (26.0%).

Agritourism farms appear to be more entrepreneurial than non-agritourism farms in terms of the variety of products/services available, including value-added products, services provided to others and even rentals, leases and timeshares (i.e., passive diversification). In the area of value added products, agritourism farms are significantly more involved in wine production (26.7%) than non-agritourism farms (9.1%). This is not surprising, as wineries are a common agritourism activity. Significant differences were also found between agritourism and non-agritourism farms in the areas of services provided to others and those engaged in rentals, leases or timeshares. In some cases these differences are because those products may be the recreational attraction itself (e.g., hunting leases). A higher involvement of agritourism farms in other enterprises may be associated with the marketing role of these recreational activities for other farm products.

Table 5. Non-recreation enterprise lines of responding farms.

	All Respondents	Agritourism	Non-Agritourism
Commercial Farm Production	**(n = 216)**	**(n = 149)**	**(n = 67)**
Farming for commercial sale	85.2%	85.2%	85.1%
Farming for other uses	14.8%	14.8%	14.9%
Agricultural Products[1]	**(n = 231)**	**(n = 154)**	**(n = 76)**
Commodity crops	16.9%	19.5%	11.8%
Specialty crops*	53.7%	58.4%	43.4%
Livestock	28.1%	26.0%	32.9%
Poultry or small animals	10.8%	10.4%	11.8%
Rare or non-traditional animals	11.7%	13.6%	7.9%
Fish or shellfish in captivity	5.2%	5.2%	5.3%
Wood products	13.9%	13.6%	14.5%
Other products	30.7%	32.5%	27.6%
Value Added Products[1]	**(n = 135)**	**(n = 101)**	**(n = 33)**
Wine*	22.2%	26.7%	9.1%
Beer or liquor	2.2%	3.0%	0.0%
Processed foods	54.8%	52.5%	60.6%
Decorative items	11.9%	12.9%	9.1%
Other products	37.0%	37.6%	36.4%
Services Provided to Others*	**(n = 235)**	**(n = 156)**	**(n = 78)**
Do provide services to others	33.3%	37.2%	23.1%
Do not provide services to others	66.7%	62.8%	76.9%
Passive Diversification*	**(n = 226)**	**(n = 151)**	**(n = 74)**
Engaged in rentals, leases or timeshares	20.4%	21.9%	16.2%
No rentals, leases or timeshares	79.6%	78.1%	83.8%

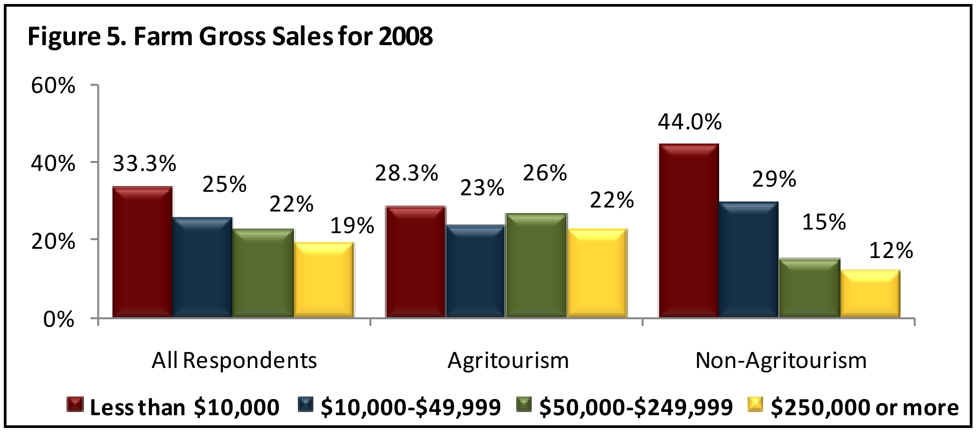
* Analysis revealed significant differences between-agritourism and non-agritourism farms in the categories of specialty crop production, wine production, services and passive diversification (p<0.10).

[1] This only includes those products grown or processed on the farm.

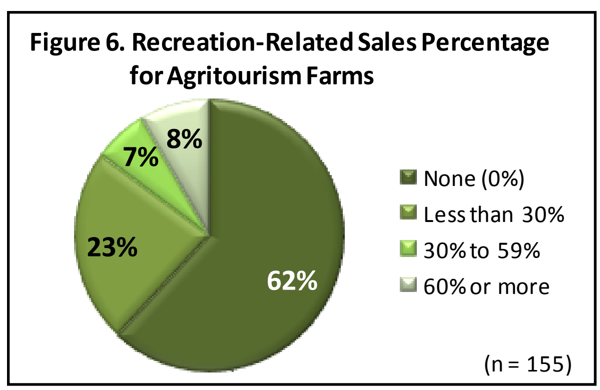
Farm Gross Sales

Farmers report significantly higher gross farm sales for 2008 among those offering agritourism activities (n=152) than non-agritourism (n=75) operations (p=0.02) as shown in Figure 5. Nearly one-half (44.0%) of non-agritourism farms reported having sales of less than $10,000, while less than one-third (28.3%) of agritourism farms fell into that category. Nearly twice the percentage

(22.4%) of agritourism farms had 2008 gross sales of at least $250,000 compared to non-agritourism farms (12.0%).



Interestingly, nearly two-thirds (61.9%) of agritourism operators indicated that recreational activities accounted for none of their gross sales, and another one-fourth (23.2%) attributed less than 30% of sales to those activities (Figure 6). Agritourism farms indicated, on average, that 13.1% of farm sales were recreation related. The higher gross sales of agritourism farms considered alongside the relatively small percentage of sales coming directly from recreation related activities suggest that agritourism may have an important role in not only bringing direct revenues to the farm, but more importantly, a marketing role in assisting the promotion and sale of other farm products.



SECTION III

ATTRIBUTES OF MISSOURI AGRITOURISM OFFERINGS

This section explores agritourism characteristics in terms of the types and timing of activities and services provided, attributes and number of their visitors, fees charged for visiting the farm and their marketing efforts. This study examined 20 types of recreational activities and 16 hospitality services usually associated with agritourism. The survey also included one open-ended response category to identify new recreational offerings in Missouri. Appendix A includes the recreational and hospitality activities and services included in this study.

Types of Activities and Services Provided

Missouri agritourism farms offer a large variety of recreational activities, ranging from tours and wineries to wildlife observation and festivals. The activities most commonly offered by respondents are tours, including those designed to be educational (50.0%) and tours more directed toward leisure (48.8%) as Table 6 displays. Over a third of respondents offer u-pick or self-harvest crops (37.7%) and the opportunity to observe or participate in agricultural processes, such as a cider mill (34.6%). Other popular activities among respondents were educational activities like classes, seminars or workshops (30.9%), festivals and other similar events (30.9%), animal related displays such as petting zoos (29.6%) and different field rides such as tractor or hay rides (26.5%). Nearly one-third of respondents (30.2%) indicated that their farms offered other activities not included in the list. However, detailed analysis of these activities does not show a frequently recurring one, demonstrating the originality of offerings on Missouri agritourism farms.

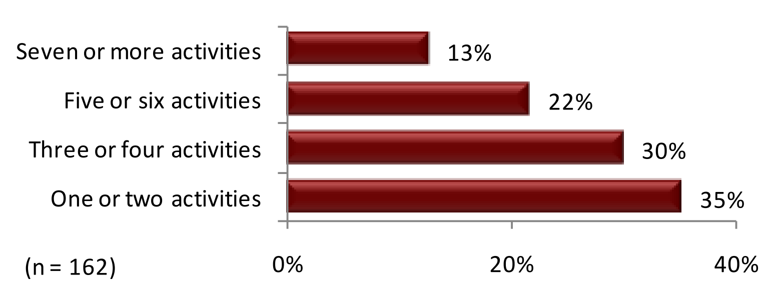
Table 6. Types and diversity of recreational activities offered by farms in Missouri.

Types of Recreational Activities	Percentage[1] (n = 162)
Educational tours	50.0%
Leisure tours (e.g., orchard walks)	48.8%
U-pick or U-harvest	37.7%
Observation/Participation of agricultural processes	34.6%
Classes, seminars or workshops	30.9%
Festivals, events and shows	30.9%
Petting zoos or farm animal displays	29.6%
Field rides (e.g., hay rides, tractor rides)	26.5%
Holiday-related activities	19.1%
Winery	17.3%
Pumpkin patch	17.3%
Corn maze or other mazes	15.4%
Wildlife observation	13.6%
Hiking or biking	12.3%
Fishing for a fee	5.6%
Paid hunting or customized hunting tours	5.6%
Cultural or historic exhibits	5.6%
Horseback riding	4.9%
Rodeos, cowboy camps or events	1.9%
Other activities	30.2%

[1] Percentages sum to more than 100%, as respondents were able to select multiple categories.

We developed a cumulative index to measure the diversity of Missouri agritourism offerings using the twenty recreational activities that were included in the survey (range from 1 to 20 activities). More than one-third (35.3%) of farms offer one or two activities, suggesting a level of specialization and focus within the farm products and target audience (Figure 7). That low level of diversity could also

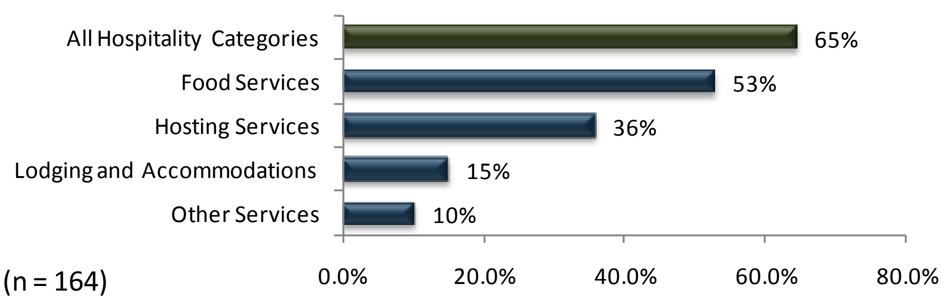
Figure 7. Number of Recreational Activities Offered



be associated with recent agritourism development. At the same time, more than one-third (34.6%) of farms offer five activities or more for visitors, suggesting that those farms are very involved in agritourism. Half of the farms offer three or more recreational activities (median=3.0) and on average they offer nearly four (mean=3.7). The most diversified farms offered thirteen recreational options for visitors.

We also examined the hospitality services offered on-farm in terms of lodging, food and hosting services. Nearly two-thirds (64.6%) of agritourism farms are offering at least one hospitality service including the categories of: Lodging and Accommodations, Food Services, Hosting Services and Other Services (Figure 8). Food services are the most common, form of hospitality available, with more than half (53.0%) offering visitors food and beverages on-farm, followed by hosting services (36.0%). Not surprisingly, lodging and accommodations was the least frequent service provided (15.2%) perhaps associated with the high level of investment required.

Figure 8. Overall Hospitality Involvement



(n = 164)

Of the agritourism farms involved in food services, about a quarter offer tasting rooms (25.0%), cookouts, barbeques or picnics (23.2%), private parties (23.0%) and food stands (21.3%) as shown in table 7. Among those farms offering event hosting services, weddings and private parties (94.9%) are most common.

Table 7. Types of hospitality services offered by farms in Missouri.

	Within Category [1, 2]	All Agritourism [1, 3]
Food Services	**(n = 87)**	**(n = 164)**
Tasting rooms	47.1%	25.0%
Cookouts, barbecues or picnics	43.7%	23.2%
Food stand	40.2%	21.3%
Catering or customized meals	31.0%	16.5%
Sit-down dining	20.7%	11.0%
Take-out foods or beverages	20.7%	11.0%
Deli store	12.6%	6.7%
Hosting Services	**(n = 59)**	**(n = 164)**
Weddings or private parties	94.9%	23.0%
Corporate or business retreats	57.6%	14.0%
Relaxation and therapeutic related services	13.6%	3.3%
Lodging and Accommodations	**(n = 25)**	**(n = 164)**
Bed & Breakfast	52.0%	7.9%
Cottages or cabins	52.0%	7.9%
Farm vacations	28.0%	4.3%
RV and camp sites	20.0%	3.0%
Hotel, inn, lodge or resort	12.0%	1.8%
Other Services	**(n = 17)**	**(n = 164)**
Other hospitality services	100.0%	10.4%

[1] Percentages sum to more than 100%, as respondents were able to select multiple categories.
[2] Percentages include only those who indicated involvement in at least one item of the category (e.g., offerings under food services). For example, 47.1% of the 87 farmers offering food services have a tasting room.
[3] Percentages include all respondents receiving visitors on their farms.

Characteristics of Agritourism Availability

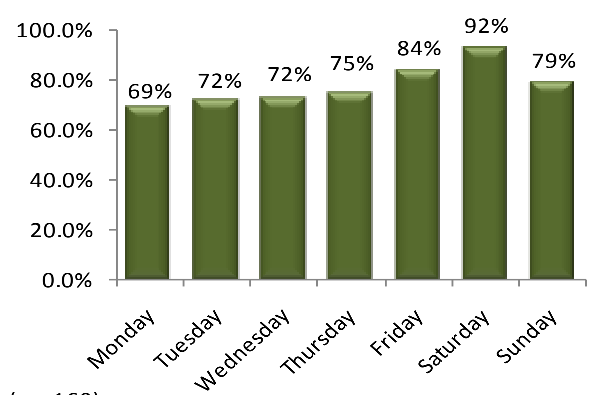
Availability of agritourism offerings in Missouri was very diverse in 2008 in terms of the number of days farms were open to visitors. About half (42.3%) of responding farms received visitors on more than sixty days, while less than one-fourth (20.9%) received visitors on fewer than fifteen days, suggesting varying levels of involvement in the agritourism. An interesting finding is the existence of new entrants alongside with well-established agritourism farms in terms of number of years in business. About a fifth (19.6%) have entered this market in the last two years, while 40.6% have been receiving visitors for more than ten years. Table 8 shows the number of days and months that Missouri farms received visitors in 2008 and the number of years offering agritourism activities. More than two-thirds (64.6%) of respondents received visitors six or seven days per week.

Table 8. Number of days, months and years receiving visitors on Missouri agritourism farms.

	Percentage
Number of Total Days Farms Received Visitors in 2008	**(n = 163)**
Less than fifteen days	20.9%
Fifteen to twenty-nine days	18.4%
Thirty to fifty-nine days	18.4%
Sixty days or more	42.3%
Number of Days Per Week Receiving Visitors in 2008	**(n = 160)**
One to two days	19.7%
Three to five days	15.7%
Six to seven days	64.6%
Number of Months Per Year Receiving Visitors in 2008	**(n = 160)**
One to three months	29.4%
Four to ten months	33.7%
Eleven to twelve months	36.9%
Number of Years Offering Agritourism	**(n = 163)**
Less than two years	19.6%
Three to five years	20.2%
Six to nine years	19.6%
Ten years or more	40.6%

Nearly all receive visitors on Fridays (83.5%) or Saturdays (92.4%), as Figure 9 shows. More than one-third (36.9%) of respondents receive visitors year-round, indicating high involvement in the industry (Figure 10). As it would be expected, the majority of agritourism farms receive visitors between

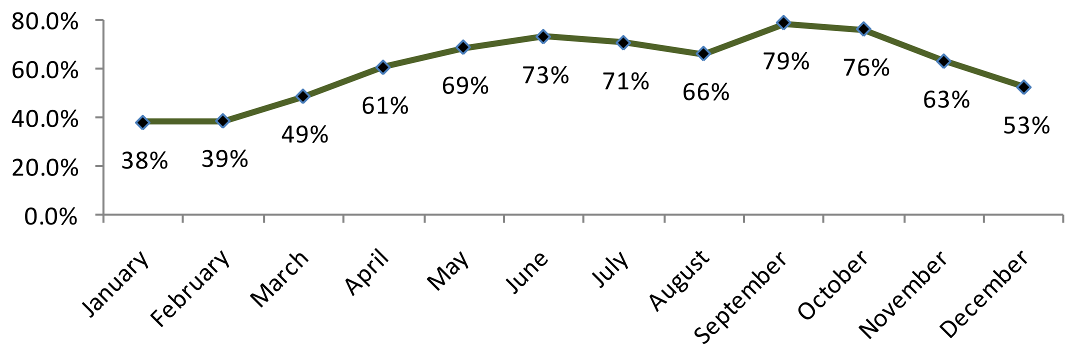
Figure 9. Days of the Week Receiving Visitors



(n = 160)

April and December. September (78.8%) and October (76.2%) are peak months. In turn, January (38.1%) and February (38.8%) are the months with the least agritourism activity in Missouri.

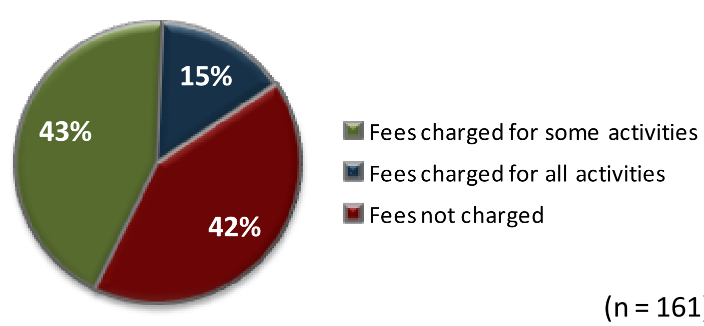
Figure 10. Months of the Year Receiving Visitors



(n = 160)

Results show split policies on fees charged to visitors on Missouri agritourism farms. More than half (58.4%) of farms charge at least one type of fee to enjoy their recreational activities either charging fees for some activities (43.5%) or for all activities (14.9%) as Figure 11 shows. About half (41.6%) offer those experiences for free. The relatively large proportion of respondents not charging fees reinforces the evidence that agritourism could serve purposes beyond the direct generation of revenue. For example, agritourism can be a marketing tool to attract potential customers to other farm items, such as specialty or value-added products. Agritourism may also serve to accomplish individual farmer goals.

Figure 11. Extent of Fees Charged on Agritourism Farms



(n = 161)

Group Composition and Number of Missouri Agritourists

Agritourism farms receive a variety of visitors and group tours. Senior citizens (73.5%) and families with children (73.5%) are the most frequent visitors, while school groups (48.1%) are among the least frequent, although still very high (Table 9). Given the growing popularity of wineries in Missouri, we examined the characteristics of agritourists with and without the winery attraction. Not surprisingly, the proportion of seniors (96.4%) and couples without children (96.4%) is higher for wineries than non-winery facilities (68.7% and 67.2% respectively). Similarly, on farms not offering winery activities, couples with young children (76.9%) are the most frequent visitors.

Table 9. Types and numbers of agritourists visiting Missouri farms with and without wineries.

	Total	Winery	Non-Winery
Types of Visitors	**(n = 162)**	**(n = 28)**	**(n = 134)**
Seniors	73.5%[1]	96.4%[1]	68.7%[1]
Families with children 12 or younger	73.5%	60.7%	76.9%
Couples without children	72.2%	96.4%	67.2%
Families with teens or young adults	66.7%	71.4%	65.7%
Organizations/groups	61.1%	85.7%	56.0%
School groups	48.1%	7.1%	56.7%
Others	16.0%	7.1%	17.9%
Number of Visitors for 2008 (Estimated)	**(n = 152)**	**(n = 27)**	**(n = 125)**
Total number of visitors	1,203,406	340,500	862,906
Average visitors per farm (mean)	7,917	12,611	6,903
Median	425	2,000	300
Range (min.-max.)	(0-350,000)	(0-150,000)	(0-350,000)
Number of Visitors for 2009 (Anticipated)	**(n = 144)**	**(n = 26)**	**(n = 118)**
Total number of visitors	1,219,894	412,025	807,869
Average visitors per farm (mean)	8,471	15,847	6,846
Median	500	2,750	312
Range (min.-max.)	(5-350,000)	(75-150,000)	(5-350,000)

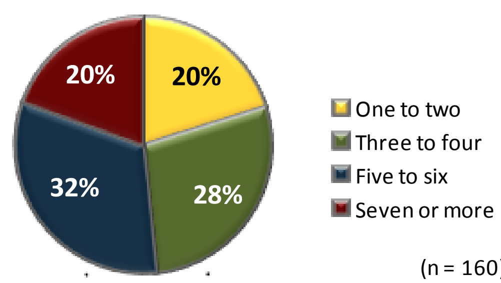
[1] Percentages may sum to more than 100% as respondents were able to select more than one.

Respondents indicated they received more than one-million (1,203,406) visitors on their farms in 2008. Given the smaller number of wineries (n=27) on the sample, their total number of visitors was smaller (340,500) than the non-wineries (862,906). However, as expected given the popularity of wineries as a tourism destination, the average number of visitors for wineries was about double (mean=12,611) that of non-wineries (mean=6,903). Wineries had a smaller range of visitors in 2008 (0-150,000) as compared to non-wineries (0-350,000). This may be due to the latter group having greater flexibility for the recreational use of their space with reduced negative impact on their crops as compared to vineyards. Expectations for 2009 were higher for the agritourism industry in Missouri. Respondents anticipated a larger number (1,219,894) and higher average (mean=8,471) number of visitors for 2009.

Marketing Characteristics

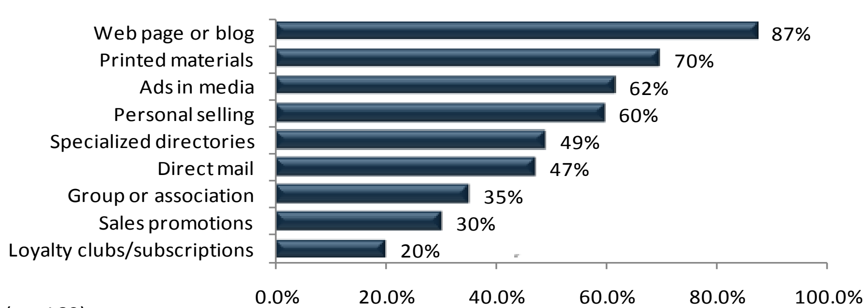
Farm operators promote their agritourism offerings in a number of ways, including both traditional (e.g., ads in media) and more innovative methods (e.g., blogs). Impressively, all agritourism providers (100.0%) are using some type of marketing tool (Figure 12). Half (51.6%) of respondents use at least five different marketing tools. Results show that agritourism operators are avant-garde marketers, having a reliance on modern technology for communication. More than three-fourths (87.4%) use a Web page or blog to promote their products (Figure 13). A large proportion (70.0%) also use printed materials for marketing and promotion.

Figure 12. Number of Marketing Methods Used



(n = 160)

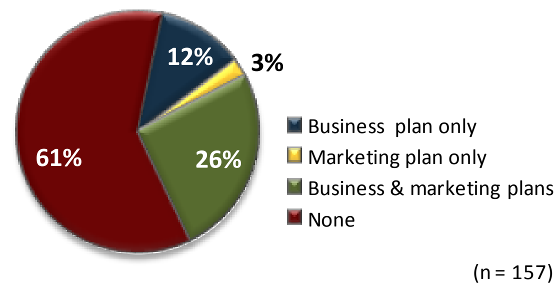
Figure 13. Marketing Methods Used



(n = 160)

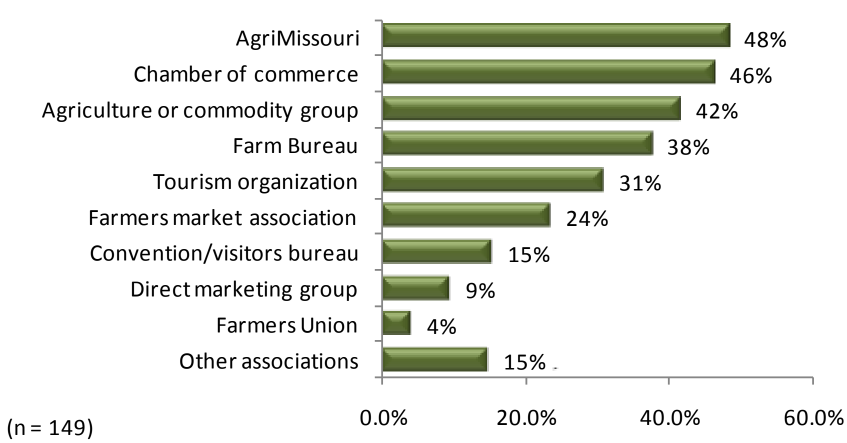
Nearly two-thirds (60.5%) of respondents do not have written business or marketing plans and only one-fourth (25.5%) have both written business and marketing plans for guidance (Figure 14). This low level of adoption suggests that greater efforts are needed to promote the use of these documents as they help to organize and guide the development of business.

Figure 14. Availability of Business and Marketing Plans



Agritourism farms are very proactive in their involvement with agriculture, business and tourism associations: *AgriMissouri* (48.3%) and the chamber of commerce (46.3%) are the most frequently reported associations for membership (Figure 15). The high level of membership reported is important as associations provide information, resources and networking opportunities that can facilitate agritourism operations.

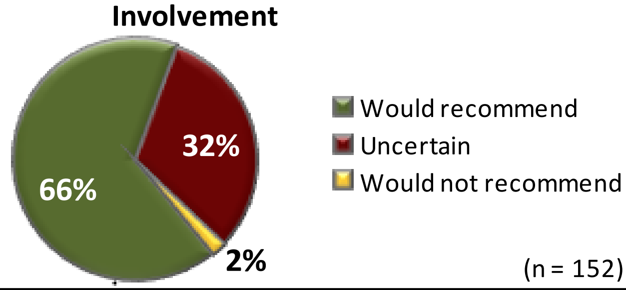
Figure 15. Membership to Agriculture, Business and Tourism Associations



SECTION IV
INTRINSIC AND ECONOMIC IMPACTS OF AGRITOURISM

This study assessed the intrinsic and economic benefits of agritourism from the farmer perspective using a number of indicators. First, we assessed the overall farmer satisfaction with their agritourism involvement through two indirect indicators: their willingness to recommend agritourism to other farmers and their plans for further development of recreational activities. Next, we assessed the level of accomplishment of sixteen entrepreneurial goals that are frequently identified as agritourism drivers (Barbieri, 2009; Nickerson, Black and McCool, 2001). Then, we examined the perceived economic impact of agritourism using three indicators: (1) change of farm profits after diversification, (2) number of employees compared to non-agritourism farms, and (3) number of farm employees primarily working in agritourism. Finally, we assessed the impact of agritourism on natural stewardship and heritage preservation.

Figure 16. Willingness to Recommend Agritourism Involvement



Overall, farmers engaged in agritourism are satisfied with their agritourism experience. Two-thirds (66.4%) of respondents indicated that they would recommend that others develop agritourism on their farms, while only a very small proportion (2.0%) would not recommend it (Figure 16). Impressively, two-thirds (66.0%) of those currently offering agritourism on their farms plan to add more activities, suggesting innovation and growth within the industry, as shown in Table 10. Nearly one-third (32.7%) plan to add more recreational activities within the next year.

Table 10. Indirect indicators of overall agritourism satisfaction.

	Percentage
Planning to Add More Agritourism Activities	**(n = 159)**
Plan to add additional agritourism activities	66.0%
Do not plan to add additional agritourism activities	34.0%
Timeframe for Adding Agritourism Activities	**(n = 159)**
Within 3 months	5.7%
Within one year	27.0%
Within two to three years	9.4%
At some point in the future	23.9%
(No plans to add activities)	(34.0%)

The decision to diversify a farm with the development of agritourism activities is influenced by a number of goals, including economic (e.g., financial) and intrinsic (e.g., lifestyle). Hence, this study deemed important to assess the role of agritourism in accomplishing these goals. Rated on a five-point Likert-type scale, where (1) means “Not important”, (3) means “Important” and (5) means “Extremely Important”, it appears that agritourism is at least an important avenue to accomplish most of the sixteen goals measured (mean>3) as shown in Table 11. Specifically, agritourism appears a very important method to capture new customers (mean=4.05), educate the public about agriculture (mean=3.90) and enhance the family quality of life (mean=3.83).

Given that entrepreneurial goals are very diverse in nature, we classified them to facilitate assessing the role of agritourism in four different categories: (1) Grow and Service Markets, (2) Personal Pursuits, (3) Family Connection, and (4) Farm Profitability (Barbieri, 2009). Respondents perceived that agritourism has an important role in growing and servicing their farm markets (mean=3.70), especially for both capturing new customers (mean=4.05) and retaining current customers by providing them better services (mean=3.68). Agritourism also appears as an important tool to educate the public about agriculture (mean=3.90).

Table 11. Perceived role of agritourism to accomplish various agripreneur goals.

Goals by Categories [1]	Extremely Important	Very Important	Important	Somewhat Important	Not Important	Mean[2]
Grow and Service Markets (n = 146)						
Capture new customers	50.7%	19.7%	17.1%	7.9%	4.6%	(4.05)
Educate the public about agriculture	36.4%	30.5%	23.2%	6.6%	3.3%	(3.90)
Better serve current customers	32.7%	27.3%	24.7%	6.0%	9.3%	(3.68)
Increase direct-sale of value-added products	34.2%	24.7%	15.1%	8.9%	17.1%	(3.50)
Increase direct-sale of other products	32.7%	22.0%	15.3%	10.0%	20.0%	(3.37)
Overall Mean						(3.70)
Personal Pursuits (n = 149)						
Keep you active	34.4%	25.3%	20.1%	5.8%	14.4%	(3.60)
Additional revenues to keep farming	32.0%	25.3%	13.3%	11.3%	18.1%	(3.42)
Make money from a hobby/interest	22.1%	17.4%	23.5%	10.1%	26.9%	(2.98)
Overall Mean						(3.33)
Family Connection (n = 144)						
Enhance family quality of life	39.6%	26.8%	17.4%	8.8%	7.4%	(3.83)
Keep the farm in the family	31.5%	16.8%	14.1%	10.7%	26.9%	(3.15)
Provide jobs for family members	20.8%	15.3%	20.1%	10.4%	33.4%	(2.80)
Overall Mean						(3.26)
Farm Profitability (n = 149)						
Decrease revenue fluctuations	23.4%	28.6%	20.1%	14.3%	13.6%	(3.34)
Enhance ability to meet financial obligations	31.6%	20.0%	14.2%	15.5%	18.7%	(3.30)
Better utilize farm resources	21.6%	19.6%	26.4%	10.1%	22.3%	(3.08)
Off-season revenue generation	21.3%	19.3%	16.7%	14.7%	28.0%	(2.91)
Reduce impact of catastrophic events	14.8%	16.8%	20.1%	9.4%	38.9%	(2.59)
Overall Mean						(3.16)

[1] Accomplishment categories were constructed based on the Barbieri (2009) goals factor model.
[2] This is measured using a 5 point Likert Type Scale anchoring in (1) = Not important and (5) = Extremely Important.

Agritourism is important to fulfill personal pursuits (mean=3.33), especially to keep the farmers active (mean=3.60) and to keep them farming (mean=3.42). Although still perceived as important, agritourism has less influence on the farm profitability (mean=3.16). Agritourism helps to decrease the revenue fluctuations associated with agriculture (mean=3.34) and to increase their ability to meet financial obligations (mean=3.30). However, agritourism is perceived as having a low impact on reducing the effects of catastrophic events (mean=2.59) and providing employment for family members (mean=2.80). Findings on goal accomplishment are very important because they show that agritourism serves to nurture and expand the entire farm clientele by marketing other farm products to current and potential customers as was suggested in previous sections.

Agritourism Impact on Farm Profits

This study also shows that Agritourism has a positive impact on farm profits. The majority of agritourism providers (54.5%) indicated that their farms are profitable, either being very profitable (22.2%) or generating some profit (32.3%), as shown in Figure 17. Importantly, more than one-third (36.2%) reported that their profits significantly increased after adding agritourism activities on their farms and an additional 28.2% of respondents saw a slight increase in their profits (Figure 18). Remarkably, nearly one-fourth (21.1%) of farms reported a profit increase of 100% or more, and on average respondents reported a profit increase of 55.6% (Figure 19).

Figure 17. Stated Farm Economic Situation

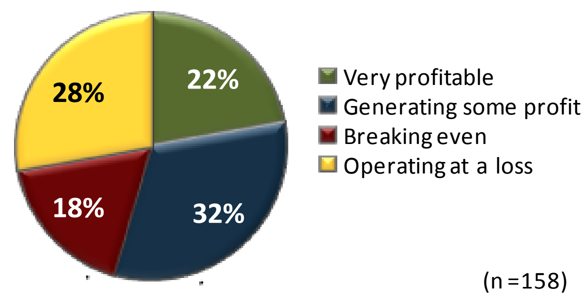


Figure 18. Change in Profits after Agritourism Development

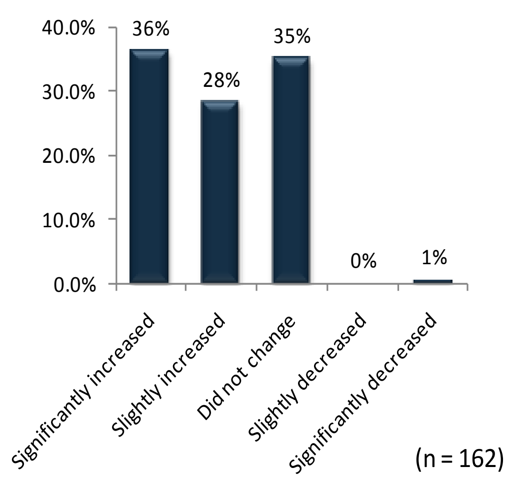
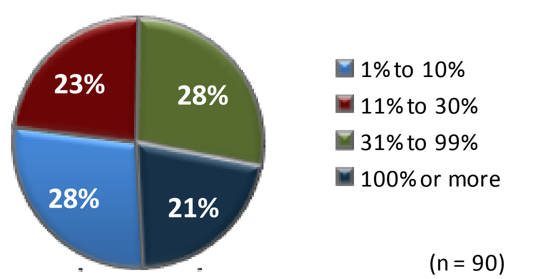


Figure 19. Amount of Profit Increase after Agritourism Development



Agritourism and Farm Employment

Agritourism also has a strong impact on employment. Statistical comparisons between farms offering agritourism and non-agritourism farms (*p*=0.04) show that agritourism farms are likely to have a higher average number of employees (mean=11.67) than non-agritourism operations (mean=5.34) as shown in Table 12. More than one-third (34.4%) of non-agritourism respondents indicated that they hire no employees, while that rate is roughly halved (13.0%) on farms offering agritourism activities, suggesting the economic benefits of increased employment. In each of the four employment categories examined (full-time year-round, full-time seasonal, part-time year-round, and part-time seasonal) operators of farms receiving visitors indicated higher number of employees than operators of non-agritourism farms. These differences were statistically significant ($p \leq 0.07$) regarding part-time seasonal and full-time year round employees, where the average number of employees for agritourism farms (means=5.21 and 2.67, respectively) were more than double that of non-agritourism farms (means=2.25 and 0.95, respectively).

The majority (61.5%) of responding farms employed at least one person for duties related primarily to agritourism. The average number of employees primarily working in agritourism (mean=6.08) is slightly higher than the mean number of employees working in non-agritourism activities (mean=5.83), as shown in Table 13. Importantly, the average number of full-time seasonal employees (mean=2.08) and of part-time year-round employees (mean=0.72) working primarily on non-agritourism activities is higher than those primarily working on agritourism activities (means=0.45 and 0.69, respectively), suggesting that agricultural production remains a large component of the farm business. These results confirm that agritourism generates additional employment opportunities on working farms.

Table 12. Number of farm employees by employment categories.

Employment Categories	All Respondents	Agritourism	Non-Agritourism
Total Employees*	**(n = 200)**	**(n = 138)**	**(n = 62)**
None	19.5%	13.0%	34.4%
1 to 4	40.0%	40.0%	41.0%
5 to 10	20.0%	23.1%	11.5%
More than 10	19.5%	23.9%	13.1%
Mean	(9.71)	(11.67)	(5.34)
Range (min.-max.)	(0-200)	(0-200)	(0-82)
Full-Time Year-Round*	**(n = 200)**	**(n = 138)**	**(n = 62)**
None	57.0%	49.3%	73.8%
1 to 4	32.5%	37.7%	21.3%
5 to 10	5.5%	7.2%	1.6%
More than 10	5.0%	5.8%	3.3%
Mean	(2.13)	(2.67)	(0.95)
Range (min.-max.)	(0-60)	(0-60)	(0-20)
Full-Time Seasonal	**(n = 200)**	**(n = 138)**	**(n = 62)**
None	79.0%	74.6%	88.5%
1 to 4	14.0%	17.4%	6.6%
5 to 10	3.0%	3.6%	1.6%
More than 10	4.0%	4.4%	3.3%
Mean	(2.34)	(2.63)	(1.74)
Range (min.-max.)	(0-160)	(0-160)	(0-75)
Part-Time Year-Round	**(n = 200)**	**(n = 138)**	**(n = 62)**
None	76.0%	72.5%	85.2%
1 to 4	19.5%	22.5%	11.5%
5 to 10	3.5%	3.6%	3.3%
More than 10	1.0%	1.4%	0.0%
Mean	(0.94)	(1.17)	(0.41)
Range (min.-max.)	(0-50)	(0-50)	(0-10)
Part-Time Seasonal*	**(n = 200)**	**(n = 138)**	**(n = 62)**
None	46.5%	42.0%	57.4%
1 to 4	32.0%	33.3%	27.9%
5 to 10	11.0%	11.6%	9.8%
More than 10	10.5%	13.1%	4.9%
Mean	(4.30)	(5.21)	(2.25)
Range (min.-max.)	(0-75)	(0-75)	(0-30)

* Analysis revealed that the total number of farm employees of agritourism farms were significantly higher than for non-agritourism farms (p=0.04) and that the number of full-time year-round and part-time seasonal employees were significantly higher on agritourism farms than on non-agritourism farms ($p \leq 0.07$).

Table 13. Number of employees of Missouri agritourism farms working in agritourism and overall farm activities by employment category.[1]

Employment Category	Employees Primarily Working in Agritourism	Employees Working in Non-Agritourism Activities
Total Employees	**(n = 130)**	**(n = 98)**
None	38.5%	51.0%
1 to 4	30.0%	26.5%
5 to 10	16.1%	8.2%
More than 10	15.4%	14.3%
Mean	(6.08)	(5.83)
Range (min.-max.)	(0-72)	(0-176)
Full-Time Year-Round	**(n = 130)**	**(n = 98)**
None	69.2%	68.4%
1 to 4	24.6%	22.4%
5 to 10	3.1%	6.1%
More than 10	3.1%	3.1%
Mean	(1.43)	(1.38)
Range (min.-max.)	(0-60)	(0-25)
Full-Time Seasonal	**(n = 130)**	**(n = 98)**
None	86.1%	83.7%
1 to 4	10.8%	12.3%
5 to 10	3.1%	2.0%
More than 10	0.0%	2.0%
Mean	(0.45)	(2.08)
Range (min.-max.)	(0-10)	(0-157)
Part-Time Year-Round	**(n = 130)**	**(n = 98)**
None	80.0%	85.7%
1 to 4	14.6%	13.3%
5 to 10	3.9%	0.0%
More than 10	1.5%	1.0%
Mean	(0.69)	(0.72)
Range (min.-max.)	(0-15)	(0-50)
Part-Time Seasonal	**(n = 130)**	**(n = 98)**
None	60.8%	76.5%
1 to 4	22.3%	13.3%
5 to 10	9.2%	3.1%
More than 10	7.7%	7.1%
Mean	(3.51)	(1.92)
Range (min.-max.)	(0-70)	(0-40)

[1] Includes only those respondents currently involved in agritourism on their farms.

Preserving Natural and Heritage Resources

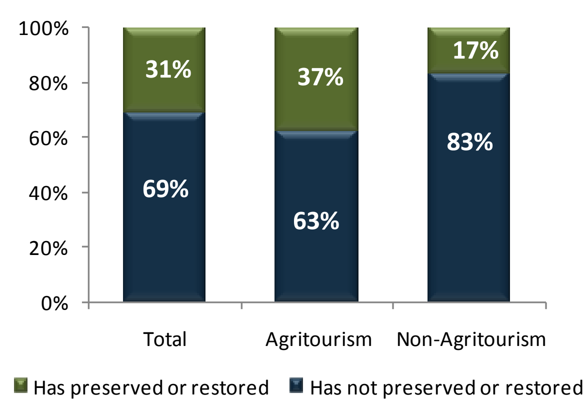
Agritourism farms also assist in preserving Missouri natural and heritage resources. As shown in Table 14, the majority of agritourism farms practice soil conservation (84.4%), water conservation (68.1%), wildlife habitat improvement (60.7%) and agriculture waste management, such as composting (53.3%) on their land.

Table 14. On-farm natural and historic conservation practiced on responding farms.

Natural Stewardship Practices	All Respondents (n = 202)	Agritourism (n = 135)	Non-Agritourism (n = 67)
Soil conservation	81.7%	84.4%	76.1%
Water conservation	67.8%	68.1%	67.2%
Wildlife habitat improvement	57.4%	60.7%	50.7%
Farm/ranch waste management	50.5%	53.3%	44.8%
Native plant protection/propagation	43.6%	48.1%	34.3%
Fisheries habitat improvement	13.9%	13.3%	14.9%
Other	12.4%	15.6%	6.0%

Even more impressive, agritourism farms are significantly more likely to engage in historic preservation or restoration activities than farms not receiving visitors ($p \leq 0.001$) as shown in Figure 20. More than one-third (37.4%) of agritourism farms have preserved or restored a historic building, equipment or tools on their farm, while that percentage is nearly halved (16.7%) on non-agritourism farms. Although the high level of involvement in heritage restoration of agritourism farms is not surprising as these can become an element of their tourism appeal, it is important to acknowledge the benefits agritourism provides in preserving American agriculture heritage when assessing this activity.

Figure 20. Historic Preservation or Restoration Activity



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APPENDIX A
RECREATIONAL ACTIVITIES AND HOSPITALITY SERVICES INCLUDED IN THIS STUDY

Recreational Activities

1. Educational tours
2. U-pick or U-harvest
3. Classes, seminars or workshops
4. Petting zoos or farm animal displays
5. Holiday-related activities
6. Pumpkin patch
7. Wildlife observation
8. Fishing for a fee
9. Horseback riding
10. Cultural or historic exhibits
11. Leisure tours (e.g., orchard walks)
12. Observation of agricultural processes
13. Festivals, events and shows
14. Field rides
15. Winery
16. Corn maze or other mazes
17. Hiking or biking
18. Paid hunting/customized hunting tours
19. Rodeos, cowboy camps or events
20. Other activities

Hospitality Services

1. Tasting rooms
2. Cookouts, barbecues or picnics
3. Food stand
4. Catering or customized meals
5. Sit-down dining
6. Take-out foods or beverages
7. Deli store
8. Hotel, inn, lodge or resort
9. Weddings or private parties
10. Corporate or business retreats
11. Relaxation/ therapeutic related services
12. Bed & Breakfast
13. Cottages or cabins
14. Farm vacations
15. RV and camp sites
16. Other hospitality services