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**Perceived Benefits of Agritourism:
A Comparison between Missouri Metropolitan and Non-Metropolitan Residents**

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ABSTRACT

The Recreation Experience Preference (Driver, 1983) and Sustainable Development (WTO, 2004) frameworks are used to examine the perceived personal, socio-cultural, economic and environmental benefits associated with agritourism among metropolitan and non-metropolitan residents in Missouri (US). Results show that doing something with their family (personal), preserving natural resources and ecosystems (environmental), preserving rural heritage and traditions (socio-cultural), and revitalizing local economies (economic) are the most important benefits that agritourism provide to citizens and society. MANOVA tests show few significant differences on the perceived personal benefits and no differences on the perceived socio-cultural, environmental and economic benefits between metropolitan and non-metropolitan residents.

Keywords: Benefits, Agritourism, Metropolitan, Non-Metropolitan, Missouri

INTRODUCTION

Agritourism, defined as the provision of recreational activities in a working farm (Lobo, 2001), is becoming more popular in the U.S. as a strategy to increase farm revenues and alleviate the economic burden imposed by the current agricultural market conditions (Che, Veeck, & Veeck, 2005). During the past five years, a similar trend is also occurring in Missouri which ranks third in the U.S. in terms of total agricultural sales (OSED, 2002; Valdivia, 2007). Missouri farm operators perceive that agritourism activities are important for the continued farm operation and have a positive impact on farm profits (Barbieri & Tew, 2010). The same study indicates that most agritourism operators reported at least some profits increase after adding agritourism activities and nearly one-fourth of them experienced a two-fold minimum increase in profits.

Agritourism benefits extend far beyond higher farm revenues. Previous studies suggest that agritourism has the capacity to provide personal benefits to farm visitors, as well as an array of economic, environmental and socio-cultural benefits to surrounding communities and the greater society. However, the complexity of the benefits that agritourism can produce are not fully understood. Most of the research related to agritourism focuses on the perceived benefits to the provider (i.e., farmer) rather than the consumer (i.e., current and potential visitors). Furthermore, no studies comparing the perceptions of agritourism benefits between metropolitan and non-metropolitan residents are found.

LITERATURE REVIEW

A benefit refers to an advantageous change, a condition improvement, the prevention of a worse condition, or a gain to an individual, group, society or even a nonhuman organism (Driver, Nash, & Hass, 1987). Four general categories of benefits have been identified in the leisure, recreation and tourism literature: Personal (psychological and psycho-physiological), socio-cultural, economic, and environmental benefits (Driver, 1983). Previous studies examining the impacts of tourism suggest that local residents perceive positive (i.e., benefits) as well as negative (i.e., disbenefits) outcomes of tourism activities and especially nature-based tourism (Andereck & Vogt, 2000; Besculides, Lee, & McCormick, 2002). Understanding perceptions of local residents is important because perceptions affect the level of support that the host community would provide to the tourism industry (Gursoy, Jurowski, & Uysal, 2002).

Most of the research in recreation personal benefits has built on Driver's (1983) Recreation Experience Preference (REP) Scales, which is composed of a series of items designed to capture the psychological, social, and perceived physiological outcomes derived from recreation participation (Kyle, Mowen, & Tarrant, 2004). The most prevalent personal benefits perceived from outdoor recreation and nature-tourism are related to general nature viewing and overall nature appreciation (Beh & Bruyere, 2007). Regarding agritourism, purchasing fresh products, buying directly from farmers, experiencing nature, and enjoying relaxation, were found to be the main benefits that visitors derived from visiting a farm (Jolly & Reynolds, 2005).

The sustainable development framework is widely used to examine the environmental, economic, and socio-cultural impacts of tourism development (Logar, 2010). Agritourism is suggested to foster local economic diversification and rural development as visitors usually engage in recreation and shopping activities outside their natural destinations (Busby & Rendle, 2000). Agritourism is also suggested to have the capacity to spread environmental (e.g., natural resources preservation) and socio-cultural (e.g., rural areas repopulation) benefits to local communities (Che et al., 2005; Sharpley, 2002). However, the extent to which consumers perceive those benefits is unknown because most of available studies have focused on the impact of agritourism at the farm level (e.g., Barbieri & Mahoney, 2009; Nilsson, 2002; Tew & Barbieri, 2011).

METHODOLOGY

This study draws from a larger project aimed to understand the perceived benefits and recreational preferences of different types of natural settings. Specifically, the purposes of this manuscript are: (1) to examine the personal, economic, environmental and socio-cultural benefits of farms offering agritourism opportunities as perceived by potential and current agritourists; and (2) to determine whether those perceptions differ between metropolitan and non-metropolitan residents.

A survey instrument was designed to address study objectives and mailed to 5,000 randomly selected households in Missouri in 2010. The study sample was stratified to mimic the metropolitan ($n=3500$) and non-metropolitan ($n=1500$) composition of the state (USDA: ERS, 2004). Survey procedures followed a modified Tailored Design Method (Dillman, 2000) including: a postcard announcement, a first survey wave with a cover letter, a postcard reminder, and a second wave of mailed surveys. The survey queried about the perceived personal, economic, environmental and socio-cultural benefits of agritourism, preferences for recreation in natural settings, including farms, and socio-demographic information. Personal benefits were examined through 15 items and sub-domains from the REP scale (Driver, 1983) and measured on a five-point Likert scale (1=Very Unimportant; 5=Very Important). Nine statements, measured on a five-point Likert scale (1=Very Unimportant; 5=Very Important), were used to assess the perceived economic, environmental, and socio-cultural benefits of agritourism.

The survey produced 969 completed questionnaires, representing a 19.6% adjusted response rate. Half ($n=498$; 51.4%) of respondents live in metropolitan counties and about a quarter ($n=238$, 24.6%) in non-metropolitan counties. Respondents who chose not to indicate their geographic residence ($n=233$, 24.0%) were excluded from this study. Statistical analysis included descriptive statistics, Cronbach's alpha and MANOVA tests (critical p -value <0.05).

RESULTS AND DISCUSSION

Profile of Respondents

The gender distribution among the respondents was almost evenly distributed with a slight majority of males (51.6%). About one-quarter (21.0%) of respondents were between 18 and 40 years old, 44.0% were between 41 and 60 years old, 35.0% were at least 61 years old ($M=53.9$ years). Half (51.2%) of respondents were either high school graduates or had completed some college, the other half (48.7%) had at least a two-year college degree. The majority (78.9%) live with at least one person; about one-third (30.4%) from those, reside with at least one child 12 years old or younger. A third of respondents (34.7%) reported a gross annual household income of \$35,000 or less; 27.9% of at least \$75,000. About one-half of respondents (49.3%) were full-time employees and about one-third (30.1%) were retired.

Present, Past and Future Agritourism Behavior among Respondents

Nearly one half of respondents (48.1%) have visited an agritourism farm for recreation purposes in the past (Table 1). From those, a relative large proportion paid their first visit at least 10 years ago (44.4%) and used to have such recreational farm visit at least occasionally when they were 16 years or younger (45.2%). About one half of respondents indicated to be either likely or very likely to visit an agritourism farm in the next 12 months (43.1%), suggesting an important opportunity for agritourism providers.

Table 1
Present, Past and Future Agritourism Behavior among Respondents

	n	%
Past Farm Visitation for Recreation Purposes		
Did visit	433	48.1%
Did not visit	467	51.9%
First Farm Visit for Recreation Purposes^a		
Last year	29	6.8%
2-4 years ago	69	16.1%
5-9 years ago	74	17.3%
At least 10 years ago	190	44.4%
Do not recall	66	15.4%
Frequency of Farm Recreational Visit during Childhood^b		
Never	115	26.7%
Rarely	85	19.7%
Occasionally	132	30.6%
Often	49	11.4%
Always	14	3.2%
Do not recall	36	8.4%
Likelihood to Visit a Farm for Recreation in the Next 12 Months^c		
Very unlikely	116	12.3%
Unlikely	152	16.1%
Undecided	269	28.5%
Likely	294	31.1%
Very likely	113	12.0%
Mean		(3.1)
Standard Deviation		(1.2)

^a Measured on a five-point scale ranging from 0 (=Do not recall) to 4 (=At least 10 years ago). This only includes those who have visited farms (n=433; 48.1%) in the past.

^b Measured on a six-point scale ranging from 0 (=Do not recall) to 5 (=Always). This only includes those who have visited farms (n=433; 48.1%) in the past. Childhood was defined as 16 years old or younger.

^c Measured on a five-point scale ranging from 1 (=Very Unlikely) to 5 (=Very Likely).

Agritourism Preferences among Respondents

The most frequent activities in which respondents reported to have participated when visiting a farm were recreational self-harvest or *u-pick* (75.9%), attending a festival or event (70.3%), and wildlife observation (38.5%) as Table 2 shows. The least frequent activity was to drive motorized recreational vehicles such as snowmobiles (9.0%). In the last five years, 21.3% of respondents have stayed overnight in an agritourism farm, and 28.2% have visited one for the sole purpose of enjoying a meal.

Table 2
Agritourism Preferences among Respondents

	n	%
Recreation/leisure Activities ^a		
Pick-your-own fruit or vegetable	327	75.9%
Attend a festival or event	303	70.3%
Wildlife observation	166	38.5%
Hiking, biking or cross-country	146	33.9%
Fishing	145	33.6%
Overnight Stay (last 5 years) ^b		
Did not overnight	339	78.7%
Did overnight for free	13	3.0%
Did overnight for a fee	77	17.9%
Did overnight for free & for a fee	2	0.5%
Visitation for the Sole Purpose of Enjoying a Meal (last 5 years) ^b		
Did not visit	311	71.8%
Did visit for free	69	15.9%
Did visit for a fee	46	10.6%
Did visit for free and for a fee	7	1.6%

^a Percentages sum to more than 100%, as respondents were able to select multiple categories. This only includes those who have visited farms (n=433; 48.1%) in the past. Only includes the five most popular activities.

^b This only includes those who have visited farms (n=433; 48.1%) in the past.

Perceived Benefits Associated with Agritourism

Results show that respondents perceive that farms offering agritourism provide an array of personal benefits to visitors. The majority of respondents perceive that doing something with their family (86.8%; $M=4.3$; $SD=0.9$), viewing the scenic beauty (89.2%; $M=4.2$; $SD=0.8$), and enjoying the smells and sounds of nature (84.1%; $M=4.1$; $SD=0.8$) were the most important personal experiences sought when visiting a farm for recreational purposes (Table 3). MANOVA tests show few significant differences on the perceived personal benefits between metropolitan and non-metropolitan respondents. As compared to their metropolitan counterparts, non-

metropolitan residents perceive that agritourism is a more important venue only to: use their equipment and gear such as fishing rods and reels ($M_{metro}=3.89$; $M_{nonmetro}=3.59$; $p<.001$); be with people having similar values ($M_{metro}=3.63$; $M_{nonmetro}=3.47$; $p=.043$); and share their agritourism skills ($M_{metro}=3.05$; $M_{nonmetro}=3.24$; $p=.020$).

Table 3
A Comparison of The Perceived Personal Benefits From Agritourism Farms Between Metropolitan And Non-Metropolitan Residents (MANOVA) ^a

Personal Benefits ($\alpha= 0.926$) ^b	Metro (n=444)	Non-Metro (n=217)	F	p
Experience excitement	3.73	3.77	0.231	0.631
Use their equipment	3.59	3.89	12.822	0.000
Do something with their family	4.28	4.34	0.550	0.459
Learn more about nature	3.99	4.01	0.068	0.794
Get exercise	3.87	3.85	0.089	0.765
Be with people having similar values	3.47	3.63	4.099	0.043
Give their mind a rest	3.68	3.82	2.905	0.089
Experience new and different things	4.02	4.03	0.021	0.884
Think about their personal values	3.48	3.57	1.296	0.255
Recall good times from the past	3.60	3.73	2.759	0.097
Enjoy the smells and sounds of nature	4.05	4.15	2.281	0.131
Share their agritourism skills	3.05	3.24	5.457	0.020
Have a change from their daily routine	3.94	3.89	0.513	0.474
View the scenic beauty	4.27	4.26	0.007	0.935
Experience solitude	3.60	3.65	0.477	0.490

^a $F = 2.149$; $p = 0.007$; observed power = 0.974

^b Measured on a five-point scale ranging from (1) =Very Unimportant to (5)=Very Important.

Results show that respondents perceive that agritourism farms also provide several socio-cultural, economic and environmental benefits to society. The majority of respondents perceived that preserving natural resources and ecosystems (87.2%; $M=4.3$; $SD=0.9$), preserving rural heritage and traditions (85.1%; $M=4.2$; $SD=0.9$), and providing scenic beauty and landscapes (87.2%; $M=4.2$; $SD=0.8$) are important or very important benefits that agritourism farms provide to society (Table 4). Paradoxically, respondents perceive that the least important benefits that farms provide to society are recreation-related ones, including: providing recreational activities for visitors ($M=3.9$; $SD=0.8$), enhancing the tourism appeal of rural areas ($M=3.9$; $SD=0.9$), and sharing cultural heritage with visitors ($M=3.9$; $SD=0.8$). MANOVA tests showed that there are no significant differences between metropolitan and non-metropolitan residents on their perceived importance of agritourism in providing any of the socio-cultural, environmental and economic benefits examined in this study.

Table 4
A comparison of the perceived socio-cultural, environmental and economic benefits from agritourism farms between metropolitan and non-metropolitan residents

Benefits^a	Metro	Non-Metro	F	p
Socio-cultural Benefits ($\alpha= 0.801$)^b	(n=485)	(n=235)		
Preserve rural heritage and traditions	4.22	4.21	0.014	0.906
Share cultural heritage with visitors	3.99	4.03	0.508	0.476
Provide recreational activities for visitors	3.98	4.07	2.103	0.147
Environmental Benefits ($\alpha= 0.839$)^c	(n=488)	(n=234)		
Preserve natural resources and ecosystems	4.36	4.31	0.620	0.431
Educate visitors about agriculture or nature	4.11	4.13	0.056	0.813
Provide scenic beauty and landscapes	4.25	4.19	0.964	0.326
Economic Benefits ($\alpha= 0.823$)^d	(n=486)	(n=234)		
Enhance the quality of life of local people	4.12	4.07	0.490	0.484
Revitalize local economies	4.18	4.23	0.397	0.529
Enhance the tourism appeal of rural areas	3.94	4.03	1.376	0.241

^a Measured on a five-point scale ranging from (1) =Very Unimportant to (5)=Very Important.

^b $F = 0.979$; $p = 0.402$; observed power = 0.268

^c $F = 0.734$; $p = 0.532$; observed power = 0.208

^d $F = 1.588$; $p = 0.191$; observed power = 0.419

When grouped by dimensions, results show that respondents perceive that farms are important (in order) in providing environmental ($\alpha= 0.839$; $M=4.2$; $SD=0.7$), economic ($\alpha= 0.823$; $M=4.0$; $SD=0.8$), socio-cultural ($\alpha= 0.801$; $M=4.0$; $SD=0.7$), and personal ($\alpha= 0.926$; $M=3.8$; $SD=0.7$) benefits to visitors and society (Table 5). When examining the benefits grouped by their dimensions, MANOVA did not show any significant differences in the perceptions between metropolitan and non-metropolitan respondents either.

Table 5
A comparison of perceived personal, socio-cultural, environmental and economic benefits dimensions from agritourism farms between metropolitan and non-metropolitan residents

Benefits Dimensions^a	Metro	Non-Metro	F	p
	(n=491)	(n=236)		
Personal benefits	3.77	3.85	2.471	0.116
Socio-cultural benefits	4.06	4.11	0.668	0.414
Environmental benefits	4.24	4.21	0.326	0.568
Economic benefits	4.08	4.10	0.227	0.634

^a Measured on a five-point scale ranging from (1) =Very Unimportant to (5)=Very Important. $F = 2.549$; $p = 0.038$; observed power = 0.722

CONCLUSION

Not surprisingly given the recent development of agritourism in the U.S., less than a half respondents had visited at least once in the past a farm for recreational purposes. But importantly, a relative large proportion of them would likely or very likely visit a farm (43.1%) for recreation purposes in the next 12 months, suggesting a great potential for the development of this form of tourism in Missouri. These results also confirm in Missouri, the increasing trend in agritourism that has been reported using national data (Cordell, 2008).

As it would be expected, most popular activities when visiting a farm were those strongly linked to this setting's specific offerings (e.g., "pick-your-own fruit or vegetable", "attend a festival or event"). These results suggest that managers of farms should capitalize on their unique resources in their advertisement and marketing efforts as competitive advantages to capture visitors seeking for a unique outdoor recreation experience. Specifically, advertisement focused around "u-pick or u-harvest" and "festivals, events and shows" would be suggested as they not only were the most preferred activities by study respondents, but they have been reported as two of the most commonly offered ones by Missouri's agritourism farms (Tew & Barbieri, 2011). Overall, the relative small proportion of respondents that identified farms as settings for hospitality-related services (e.g., overnight stay; visitation for the sole purpose of enjoying a meal) could be associated with the limited offer of lodging and accommodation facilities among Missouri agritourism farms as it has been previously reported (Barbieri & Tew, 2010). However, further research is needed regarding the importance of hospitality, especially food and beverage services, as a supplementary product of agritourism activities and to examine its overall importance and potential within this type of tourism.

In addition, this study shows that Missouri residents perceive agritourism farms to be very important in providing several socio-cultural, economic and environmental benefits to society, results that can be used when promoting agritourism. Results showing that farms are perceived as especially important in providing environmental benefits are especially important for agritourism providers taking into account the growing concern of environment-related issues in the U.S., such as protection of natural resources, habitat conservation, among others (Cordell, 2008). Interestingly, results showed that metropolitan and non-metropolitan residents in Missouri have very similar perceptions on the importance of agritourism in providing personal, socio-cultural, environmental, economic values to visitors and overall society. These results suggest that agritourism farms do not need to tailor their benefit-based advertising upon the metropolitan/non-metropolitan distribution of their clientele. However, further inquiry is needed to examine whether tailored advertising is needed based on other socio-demographic characteristics (e.g., gender, age, ethnicity) or activity preferences of potential and current agritourists.

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