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Iowa Consumer Motivations and Preferences for Agritourism Activities

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Abstract: *The study reported here sought to ascertain the agritourism attraction preferences of Iowa consumers based on population category. Respondents were asked questions regarding their motivation and preferences related to participation in agritourism activities. The results revealed that individuals enjoy participating in agritourism activities to spend time with family and friends while supporting local farmers. They placed considerable importance on the availability of fresh produce, on-site restrooms, and a convenient location. The information regarding consumer motivation and preferences may be used by Extension educators, state organizations, and the agritourism owner/operator to create a consumer profile and target market prospective audiences.*

Introduction and Review of Literature

Agriculture-related tourism is becoming increasingly popular across the country, serving as forms of entertainment or educational activities. Such activities may include visits to roadside produce stands, farmers markets, bed-and-breakfasts, vineyard wine tastings, corn mazes, and hayrides. Terms that describe these activities and forms of tourism include, but are not limited to, agritourism, rural tourism, ecotourism, green tourism, nature-based tourism, and farm tourism (McGehee & Kim, 2004). The Iowa State University Extension system recognized agritourism as a meeting between agriculture and tourism and views it as "a growing segment of the rural economy in many areas of Iowa" (Iowa State University Extension, 2009).

Agritourism is beneficial to rural areas: it provides alternative use of farmland, increases revenue of on-farm activities, and improves business sustainability (Geisler, 2008; Jensen, Lindborg, English, & Menard, 2006). Agritourism allows the owner/operator to potentially offer informal agricultural education to the general population, which might have little to no direct contact with agriculture (Jolly & Reynolds, 2005).

Iowa's roots in agriculture make agritourism an appropriate opportunity for growth and rural economic development within the state. According to the 2007 U.S. Census of Agriculture, there are 92,856 farms in Iowa, an increase of 2% from the 2002 Census. While the number of farms has increased, the average size of farms has decreased by 5% according to the 2007 Census. Farms with fewer than 100 acres now comprise 41% of all Iowa farms, an increase of 19% from 2002 (U.S. Census of Agriculture, 2007). According to the 2007 Census, income from agritourism and recreational services in Iowa increased three and a half times, from \$880,000 in 2002 to over \$3.1 million in 2007.

Currently, the Iowa agritourism industry is supported by various departments within the Iowa State University Extension system, including the Value Added Program, as well as by public and private organizations throughout the state. The Iowa State University Extension system (2009) Visit Iowa Farms website offers information for consumers about various Iowa agritourism operations and provides owner/operators information regarding rules and regulations, legal considerations, and training resources. In addition to the development of a website, the Iowa State University Extension Value Added Program is conducting a study of agritourism owner/operators, which focuses on marketing and research strategies to promote on-farm retail enterprises in the Iowa agritourism industry (Leopold Center for Sustainable Agriculture, 2008).

With current research, state demographic trends, and growing numbers of organizations throughout the state interested in the potential for agritourism, the timing is ideal for organized efforts to build the Iowa agritourism industry. However, to do so, more research is needed, particularly research on prospective agritourism visitors.

Previous studies showed that agritourism has a positive economic impact on both the farm operation and the host community (Jensen et al., 2006; Lobo et al., 1999). Agritourism aids rural community development by creating business sustainability and bringing revenue to rural areas (Geisler, 2008; Jensen et al., 2006). Agritourism creates opportunities for the owner/operators by creating links with their consumers and providing outlets to directly market their products (Lobo et al., 1999). By linking directly to consumers, the owner/operators are able to bypass the traditional distribution network and earn a greater share of the profits (Kuches, Toensmeyer, German, & Bacon, 1999).

A common social theme throughout the literature is one that suggests owner/operators have a desire to educate the public about agriculture's contributions to the local economy and quality of life (McGehee & Kim, 2004; Nickerson, Black, & McCool, 2001; Lobo et al., 1999; Putzel, 1984). Similarly, it is the goal of Extension education to partner with citizens, communities, and university colleagues to extend the research of the public land-grant university (Bull, Cote, Warner, & McKinnie, 2004). Extension education must constantly evolve to provide current university-based research to local communities (Bull et al., 2004). The challenge that faces Extension education is to go beyond the traditional role of educational programming and find new ways to gather and disseminate information surrounding agritourism (Burkhart-Kriesel & Francis, 2007). Further research into agritourism will help community specialists to provide information to agritourism entrepreneurs and visitors (McGehee & Kim, 2004).

Social benefits created through the formation of personal relationships aids in the long-term sustainability of agritourism businesses (Flora & Flora, 2008; Burkhart-Kriesel & Francis, 2007), and these relationships influence agritourism owner/operators' motivation to start and stay in business (Schroeder, 2004; Nickerson et al., 2001). The agritourism owner/operator creates the link between the products and the consumer's experience, which in turn contributes to a positive economic and social environment (Schroeder, 2004).

Purpose and Objectives

The purpose of the study reported here was to describe the agritourism attraction preferences of Iowa consumers based on population categories, which were categorized as either non-urban or urban. The specific objectives were to 1) define consumer motivation behind participation in an agritourism activity; 2) distinguish the consumer-perceived importance of agritourism amenities; 3) discern the consumer-perceived importance of agritourism services; and 4) explore consumer interest in purchasing Iowa products.

Methods and Procedures

The study utilized a directly administered survey to obtain a higher response rate and fewer incomplete responses (Ary, Jacobs, & Razavieh, 2002). The questionnaire was developed to assess consumer motivation and preferences for agritourism activities. The questions were adopted from the New Jersey Agritourism survey (Komar, 2008) and Visitors to Tennessee Agri-tourism Attractions survey (Jensen et al., 2006). The questions were tailored to Iowa agritourism operations by utilizing information available on the Iowa State University Extension (2009) Visit Iowa Farms website.

To ensure content and validity of the instrument, the researcher used a series of steps proposed by Dillman (2007). These steps were completed prior to directly administering the survey. They included a review of the instrument by knowledgeable colleagues, informal discussions, a small pilot study of 30 random individuals at a grocery store, and a final check of the instrument. After using Dillman's process, no major changes in content or design of the instrument were required.

The researcher served as the survey administrator. A convenience sample was obtained by handing out the survey over the course of 6 days at the 2008 Iowa State Fair. The survey administrator asked individuals at random if they lived in Iowa and then asked those who lived in Iowa to voluntarily complete the survey. The targeted locations were primarily areas with high traffic flow, such as free entertainment stages and exhibit buildings, as well as places where individuals would be standing in line. Participants in the survey were both males and females with ages ranging from 18 to 80 and representing all regions of the state. In total, 385 individuals participated in the survey. Some individuals approached over the course of the 6 days refused to complete the survey, but the researcher did not record the number of refusals.

In response to the purpose of the study and using the demographic information obtained from the survey, respondents were placed in either the non-urban or urban category. The study followed the U.S. Census Bureau definitions, placing individuals living in areas with populations of 49,999 or fewer in the non-urban category and individuals living in areas with populations of 50,000 or more in the urban category (Cromartie, 2007).

The pilot test and survey data were compared using a two independent samples t-test (Ary et al., 2002). Comparisons were made for the two constructs of the study, consumer motivation and preferences. There were no statistically significant differences in the means of the two groups, so the data from the groups were combined, increasing the total number of respondents in the study to 415. The demographic data obtained from the 415 questionnaires were also compared with the 2000 Iowa Census data. The demographic information gathered included gender, ethnicity, age, education level, and household income. This information was well distributed and demonstrated similar trends to those in the 2000 Iowa Census data. The results of the questionnaire data were analyzed using descriptive statistics. However, the useable responses reported in the findings may have varied by question because of incomplete or illegible responses.

Results

A total of 415 people responded to the survey. The demographic information obtained from respondents reflected the Iowa demographics (Table 1). The majority of the respondents were female (54.46%), and most were Caucasian/white (93.69%). There was a wide range in age, with the largest percentage (26.60%) reporting their age between 45 and 54 years. Level of education ranged from less than 9th grade to a graduate degree, with the largest percentage (27.98%) reporting holding a bachelor's degree. There was also a wide range in household income, with the largest percentage (25.80%) of respondents reporting a household income ranging between \$50,000 and \$74,999.

Table 1.

Frequencies for Selected Demographic Variables

Variables	<i>f</i>	%
Gender		

Male	189	45.54
Female	226	54.46
Ethnicity		
Caucasian or white	385	93.69
African American or black	11	2.67
Asian or Pacific Islander	10	2.43
Latino or Hispanic	4	0.97
Age		
20-24	64	16.60
25-34	64	16.60
35-44	74	19.10
45-54	102	26.60
55-59	21	5.50
60-64	24	6.20
65-74	32	8.20
75-84	5	1.20
85+	0	0.00
Education level		
Less than 9th grade	2	0.49
9th-12th grade	14	3.41
High school graduation	97	23.60
Some college	84	20.44
Associate degree	44	10.71
Bachelor's degree	115	27.98
Graduate degree	55	13.38
Household income level		
Less than \$10,000	29	7.71

\$10,000-\$14,999	10	2.66
\$15,000-\$24,999	15	3.99
\$25,000-\$34,999	34	9.04
\$35,000-\$49,999	41	10.90
\$50,000-\$74,999	97	25.80
\$75,000-\$99,999	51	13.56
\$100,000-\$149,999	59	15.69
\$150,000-\$199,999	18	4.79
\$200,000+	22	5.85

The first objective was to define consumer motivation behind participation in an agritourism activity. The respondents were presented with six options (Table 2) as well as space to write other possible reasons for participating in an agritourism activity. Respondents ranked all options as important, with mean rankings ranging from $M = 4.02$ (very important) to $M = 3.01$ (moderately important). The opportunity to spend time with family and friends ranked the highest ($M = 4.02$), and the opportunity to learn about local agriculture ranked the lowest ($M = 3.01$). There was no statistically significant difference in the means of the non-urban and urban populations.

Table 2.

Importance of Reasons for Participating in an Agritourism Activity
by Population Category

Reason	Non-urban		Urban		Total	
	<i>(n = 278)</i>		<i>(n = 132)</i>		<i>(n = 410)</i>	
	Mean	<i>SD</i>	Mean	<i>SD</i>	Mean	<i>SD</i>
Spending time with family/friends	3.98	0.98	4.10	0.88	4.02	0.95
Supporting local farmers	3.99	0.93	3.85	0.97	3.94	0.94
Purchasing fresh products	3.79	0.91	3.89	0.88	3.82	0.90

Enjoying rural scenery	3.78	1.02	3.80	1.05	3.79	1.03
Short distance for vacation	3.15	1.24	3.05	1.22	3.11	1.23
Learning about local agriculture	3.08	1.15	2.86	1.05	3.01	1.13
<i>Note.</i> Non-urban populations \leq 49,999 and urban populations \geq 50,000.						
Scale: 1= not important, 2= of little importance, 3= moderately important, 4= very important, 5= extremely important.						

The second objective was to distinguish the consumer-perceived importance of agritourism amenities. The respondents were presented with eight options and asked to individually rank the importance of each when participating in an agritourism activity. Each of the options was ranked as important, with rankings ranging from $M = 3.67$ (very important) to $M = 2.52$ (moderately important) (Table 3). The highest ranked amenities overall and in both categories were the availability of on-site restrooms and a convenient location. Overall, the lowest ranked amenities were handicap accessibility ($M = 2.52$) and availability of crafts or souvenirs for purchase ($M = 2.53$). The only statistical differences between non-urban and urban respondents were for the availability of food/drink for purchase and handicap accessibility. The availability of food/drink for purchase was more important to urban respondents, and handicap accessibility was more important to non-urban respondents.

Table 3.
Importance of Availability of Amenities at Agritourism Site by
Population Category

Amenity	Non-urban		Urban		Total	
	<i>(n = 278)</i>		<i>(n = 132)</i>		<i>(n = 410)</i>	
	Mean	SD	Mean	SD	Mean	SD
On-site restrooms	3.67*	1.16	3.67*	1.18	3.67	1.17
Convenient location	3.64*	0.95	3.60*	0.77	3.63	0.89
Adequate parking	3.49*	1.12	3.37*	1.13	3.45	1.12

Food/drink for purchase	3.17*	1.16	3.44*	1.03	3.25	1.12
Credit card accepted	2.79*	1.27	2.98*	1.21	2.85	1.25
Picnic area available	2.82*	1.18	2.70*	1.07	2.78	1.15
Crafts/souvenirs for purchase	2.56*	1.19	2.48*	1.15	2.53	1.17
Handicap accessible	2.66*	1.48	2.23*	1.36	2.52	1.45
<p><i>Note.</i> Non-urban populations \leq 49,999 and urban populations \geq 50,000.</p> <p>Scale: 1= not important, 2= of little importance, 3= moderately important, 4= very important, 5= extremely important.</p> <p>* p significant $< .05$</p>						

The third objective of the study was to discern the consumer-perceived importance of agritourism services. The respondents were presented with seven options and asked to rank the importance of each when participating in an agritourism activity. Overall, the responses ranged from $M = 3.87$ (very important) to $M = 2.41$ (of little importance) (Table 4). Respondents ranked the availability of fresh products highest and the availability of group tours lowest. There was no statistically significant difference in the means of the non-urban and urban populations.

While the availability of fresh products was ranked the highest, it is interesting to note the distributions of the importance of certified organic products versus naturally raised (not organic) products. Of the total respondents, 43.17% ranked the importance of products being organically certified as not important to of little importance versus 26.83% ranking it as very to extremely important. The availability of naturally raised (not organic) products was ranked as more important. Of the total respondents, 40.49% participants ranked the importance of products being naturally raised (not organic) as very to extremely important versus 27.56% ranking it as not important to of little importance.

Table 4.
Importance of Availability of Services at Agritourism Site by
Population Category

	Non-urban	Urban	Total

Service	(n = 278)		(n = 132)		(n = 410)	
	Mean	SD	Mean	SD	Mean	SD
Fresh or specialty products for purchase	3.86	0.92	3.88	0.90	3.87	0.91
Opportunity to pick your own fruit/vegetables	3.26	1.17	3.22	1.07	3.25	1.14
Naturally raised products for purchase	3.17	1.19	3.07	1.15	3.14	1.18
Opportunity to learn about products	3.00	1.20	2.87	1.09	2.96	1.17
Organic products for purchase	2.73	1.22	2.90	1.17	2.79	1.21
Opportunity to care for animals	2.78	1.24	2.55	1.17	2.71	1.22
Group tours available	2.44	1.12	2.34	1.05	2.41	1.10
<p><i>Note.</i> Non-urban populations \leq 49,999 and urban populations \geq 50,000.</p> <p>Scale: 1= not important, 2= of little importance, 3= moderately important, 4= very important, 5= extremely important.</p>						

The fourth objective was to explore consumer interest in purchasing Iowa products (Table 5). Of the 398 total respondents, only 14 individuals (3.51%) reported they would not be interested in purchasing Iowa products. Of the 14 who were not interested in purchasing Iowa products, 13 were non-urban respondents (92.86%), and one was an urban respondent (7.14%). Those who were interested in purchasing Iowa products were provided a list of 10 products as well as space to write any additional products. The respondents who were interested in purchasing Iowa products showed the greatest interest in fresh vegetables (96.48%) and fresh fruit (95.23%). The least popular products overall included clothing (25.88%) and exotic meats (19.60%). Eleven individuals (2.8%) provided written responses that revealed that wine and honey might be items of interest to agritourists.

Table 5.

Interested in Purchasing Iowa Products at Agritourism Site by

Population Category

Product	Non-urban		Urban		Total	
	(n = 267)		(n = 131)		(n = 398)	
	f	%	f	%	f	%
Fresh vegetables	256	95.88	128	97.71	384	96.48
Fresh fruit	252	94.38	127	96.95	379	95.23
Specialty products	179	67.04	109	83.21	288	72.36
Traditional meats	172	64.42	71	54.20	243	61.06
Dairy products	159	59.55	79	60.31	238	59.80
Flowers/plants	141	52.81	79	60.31	220	55.28
Eggs	155	58.05	59	45.04	214	53.77
Homemade crafts	110	41.20	52	39.69	162	40.70
Clothing	64	23.97	39	29.77	103	25.88
Exotic meats	54	20.22	24	18.32	78	19.60
<i>Note.</i> Non-urban populations \leq 49,999 and urban populations \geq 50,000.						

Conclusion

The results of the study reported here reveal the following conclusions: 1) consumer motivation behind participating in agritourism activities is influenced by the opportunity to purchase fresh products and support local farmers; 2) when participating in agritourism activities, consumers place considerable importance on a convenient location and on-site restrooms; 3) consumers rank availability of fresh products at agritourism activities as very important. Less importance is placed on whether or not the products are naturally raised, and even less importance is placed on whether or not the products are certified as organic; and 4) consumers are very interested in purchasing Iowa products, particularly fresh vegetables and fruits.

The findings of the study provide more insight into typical Iowa consumers' motivations and preferences for agritourism activities. Similar to previous studies, findings indicate consumers want to participate in agritourism activities in order to

purchase fresh products and support local farmers (Jensen et al., 2006; Jolly & Reynolds, 2005). However, unlike the study by Jolly and Reynolds (2005) in California, consumers in the study reported here placed more emphasis on spending time with family and friends as a motivation to participate in an agritourism activity. Similar to a previous study (Jensen et al., 2006), respondents indicated that on-site restrooms and a convenient location were very important amenities when participating in an agritourism activity. Respondents also specified that the availability of fresh products was very important (Jensen et al., 2006; Jolly & Reynolds, 2005). There was also an overwhelming interest in purchasing Iowa products during an agritourism activity, with 96.59% responding they would like to purchase Iowa products while visiting an agritourism site. The importance placed on the availability of fresh products was also confirmed by their responses: a majority reported that they would purchase fresh vegetables (95.88%) and fresh fruits (94.38%).

Implications

New information regarding agritourism in Iowa is appropriate at this time based on the information from the 2007 U.S. Census of Agriculture, which shows farm sizes slightly decreasing and incomes from agritourism and recreational activities greatly increasing. Considering the number of organizations in the state, both public and private, including the Value Added Program within the Iowa State University Extension system, the state shows great potential for continued growth and development of the agritourism industry. The Extension system is in a unique position to utilize the information obtained from the study reported here and other studies focusing on agritourism based on local relationships and ability to draw on the research of the university. Agritourism offers Extension an opportunity to partner with stakeholders, adapt to meet local community needs, and go beyond the traditional role of programming.

The information obtained from the study may be useful for Extension educators, agritourism owner/operators, and state agricultural organizations involved with the agritourism industry, as it suggests that Iowans are interested in participating in agritourism activities. The results of the study help to identify consumer preferences and to support the needed growth and development of the Iowa agritourism industry. The consumer preferences outlined in the study provide a starting point for interested stakeholders, such as Extension, to develop educational programming to help agritourism owner/operators understand their prospective visitors and become

more efficient and effective in attracting visitors to their operations.

Previous studies have stressed the importance of understanding the prospective visitors in order to plan and develop a promotional strategy (Jolly & Reynolds, 2005; Lobo et al., 1999). Extension educators along with state agricultural and tourism development organizations will be able to use these findings as they work with the agritourism owner/operators to grow and develop agritourism activities. As the agritourism industry expands, it not only promotes rural economic development through the diversification of farm operations and increased revenue on the site and near the operations, but it is also socially beneficial by providing a link between the owner/operator and consumer (Geisler, 2008; Jensen et al., 2006; Jolly & Reynolds, 2005).

Recommendations

The tourism industry continues to grow in Iowa, with over \$6.3 billion in generated expenditures in Iowa in 2007 (Iowa Department of Economic Development, 2009). As a predominantly agricultural state, Iowa is in an ideal situation to grow and develop the agritourism industry. The Iowa State University Extension system and other stakeholders should work with the tourism industry to encourage continued research, education, and outreach of agritourism activities. The continued research, education, and outreach should provide agritourism owner/operators with educational programming on consumer motivations and preferences, so as to help them become more efficient and effective in attracting visitors to their operation. This collaborative effort is needed to ensure sustainable growth and development of the agritourism industry.

It is the role of the Extension system to provide existing and new university-based knowledge to local communities (Bull et al., 2004). Continued research into agritourism will assist community specialists like extension educators and small business development centers in providing current information to agritourism entrepreneurs and visitors (McGehee & Kim, 2004).

Further research is needed to determine the types of assistance that agritourism owner/operators need. In order to find even more detailed information about prospective agritourism visitors, studies that focus on specific areas or counties within states should be conducted. The study reported here provides the initial framework for these future studies.

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