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CONSUMERS' ATTRIBUTES ASSOCIATED WITH LANDSCAPE PREFERENCES FOR AGRITOURISM PARTICIPATION

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ABSTRACT

Agricultural landscapes are the visible outcomes derived from the interaction between agriculture, natural resources, and the environment. Given that agricultural landscapes are suggested to enhance the aesthetic appeal of rural destinations, this study examined consumers' preferences for fifteen landscape features when participating in agritourism activities. Relationships between landscape preferences and socio-demographics and levels of agritourism participation were also examined. Results showed that the most preferred features were seeing wildlife (e.g., deer), water resources (e.g., creeks), heritage resources (e.g., antique tractors), and farm animals (e.g., cattle) when visiting a farm for recreation. Results also indicated that socio-demographic characteristics and levels of agritourism experience are associated with landscape preferences.

Keywords: *agritourism, agricultural landscapes*

INTRODUCTION

Agricultural landscapes are the visible outcomes derived from the interaction between agriculture, natural resources, and the environment (OECD, 2001). Evidence suggests that certain features of the agricultural landscape can enhance the aesthetic appeal of rural destinations (OECD, 2001). For example, Vanslembrouck and Van Huylenbroeck (2005) found that grasslands are more appealing to rural visitors most likely because they portray the image of animals in the field. Gold and Garrett (2009) sustain that the incorporation of trees in the farmland is not only beneficial to increase productivity and reduce costs, but to beautify the rural scenery. In spite of such evidence, little is known about consumers' preferences for different types of natural, agricultural, and cultural features usually present in agricultural landscapes. Specifically, there is limited understanding about landscape preferences among current and potential visitors to working farms and other agricultural settings for recreational purposes,

activity that is commonly labeled as agritourism (Barbieri & Mshenga, 2008). Although marketing studies have reported that socio-economic characteristics shape their preferences for a product/activity (e.g., Page & Ridgway, 2001), little information is available on whether visitors socio-economic characteristics are associated with their preferences for seeing specific features on the agricultural (e.g., farm) landscape when participating in agritourism activities.

Therefore, a study was conducted to examine consumers' preferences for different types of landscape features when participating in agritourism. Specifically, this study had two objectives: (1) to identify the features of agricultural landscapes that are more appealing to current and potential agritourists; and (2) to examine whether socio-demographic attributes and levels of agritourism participation are associated with preferences for agricultural landscape features. Exploring preferences for agricultural landscapes from the consumers' perspective is a necessity given the increased adoption of agritourism as a means to alleviate farmers' economic distress and its increased popularity among the public. Study results can assist farmers in incorporating those features that are more appealing to the public, thus increasing visitors' satisfaction. Study results can also enhance our understanding of the role that natural resources have on human behaviors, specifically related to agritourism.

METHODOLOGY

In 2011, a web-based instrument was developed to survey three non-random panels of residents from Missouri ($n = 250$), Pennsylvania ($n = 250$), and Texas ($n = 250$), purchased from a marketing agency. These states were purposively chosen because they have different levels of agritourism development and a diversity of landscape compositions, while holding similar agricultural characteristics and residents with comparable socio-demographics. The questionnaire inquired about socio-demographic characteristics, past participation in agritourism, and preference for agricultural landscape features. Preferences for 15 agricultural landscape features commonly found in the literature (OECD, 2001; Vanslembrouck & Van Huylenbroeck, 2005) were queried using a five-point Likert scale ranging from "Dislike Very Much" (1) to "Like Very Much" (5). The features were selected to represent the natural (e.g., wetlands, native plants), agricultural (e.g., grasslands, specialty crops) and cultural (e.g., trails, petting zoos) dimensions of the agricultural landscapes.

Statistical analyses included descriptives, reliability tests, and multiple linear regressions. Descriptive analyses were conducted to examine respondents' socio-demographic characteristics, levels of agritourism experience, and preferences of agricultural landscape features. Cronbach's alphas were computed to test for internal reliability within the natural, agricultural, and cultural landscape dimensions. Four demographic indicators (i.e., age; education level; annual household income; residence proximity to an urban area) and four indicators of previous agritourism experience (i.e., how long ago was their first agritourism participation; frequency of agritourism participation over time; frequency of agritourism participation in the last five years; frequency of agritourism participation during childhood) were regressed to the two preferred features from each landscape dimension. No collinearity was found among the eight independent variables included in the regression tests.

RESULTS

The study sample was predominantly composed by females (71%); on average respondents were in their mid-forties ($M = 47$ years). Over a third had at least a college degree (34%) and a household income of at least $50,000 (35%). Most lived close to an urban area of at least 50,000 inhabitants, either within the city limits (38%) or less than 30 miles away (35%). About two-thirds of respondents (65%) had engaged in agritourism activities at least once in their life; 22% have done so more than five times in the last five years. Among those with previous agritourism experience, 55% had their first visit to a farm for recreation at least 10 years ago, 42% participated in agritourism activities occasionally, and 66% did so at least occasionally during their childhood.

Table 1
Respondents' Preferences for Landscape Features

Landscape Features	n	Dislike Very Much	Dislike	Neither Dislike nor Like	Like	Like Very Much	M^a
Natural Features ($\alpha = 0.828$)							**3.94**
Wildlife	738	1.1%	2.8%	12.6%	40.8%	42.7%	4.21
Water resources	749	1.3%	2.1%	12.7%	45.0%	38.9%	4.18
Native plants, flowers or grasses	743	0.9%	2.8%	20.2%	45.8%	30.3%	4.02
Forests	742	1.2%	3.4%	20.1%	42.9%	32.5%	4.02
Wetlands	745	5.0%	16.9%	35.6%	29.9%	12.6%	3.28
Agricultural Land Use ($\alpha = 0.843$)							**3.82**
Farm animals	742	1.5%	2.7%	17.3%	41.6%	36.9%	4.10
Planted trees or shrubs	745	1.5%	3.9%	18.9%	44.7%	31.0%	4.00
Variety of specialty crops	745	1.7%	2.8%	22.3%	46.4%	26.7%	3.94
Grassland and pastures	747	2.7%	6.6%	32.3%	39.5%	19.0%	3.66
Intensive one-crop farm	741	2.8%	9.4%	43.2%	32.8%	11.7%	3.41
Cultural Features ($\alpha = 0.783$)							**3.86**
Historic features	748	1.2%	2.8%	15.9%	40.9%	39.2%	4.14
Trails	744	1.9%	3.9%	16.3%	44.2%	33.7%	4.04
Petting zoos, corrals or stalls	746	1.5%	5.5%	19.4%	40.5%	33.1%	3.98
Farm-related buildings	742	2.8%	8.5%	30.5%	39.8%	18.5%	3.63
Farm equipment	745	3.0%	8.6%	36.6%	35.7%	16.1%	3.53

[a] Measured on a five-point scale ranging from 1 (Dislike Very Much) to 5 (Like Very Much).

Cronbach's tests showed high internal reliability among the features within the natural ($\alpha = 0.828$), agricultural ($\alpha = 0.843$), and cultural ($\alpha = 0.783$) landscape dimensions (Table 1). Organized by dimensions, respondents would prefer seeing natural features ($M = 3.94$), closely followed by cultural ($M = 3.86$) and agricultural features ($M = 3.82$) when visiting a farm for agritourism. Individually, the most preferred natural features were seeing wildlife ($M = 4.21$) and

water resources such as lakes or creeks ($M = 4.18$); the preferred agricultural features were farm animals such as cattle or horses ($M = 4.10$) and planted trees or shrubs ($M = 4.00$); and the preferred cultural features were heritage resources such as historic log cabins or antique tractors ($M = 4.14$) and trails ($M = 4.04$).

Regression tests resulted in six significant models indicating that socio-demographic characteristics and levels of agritourism experience are associated with preferences of seeing wildlife ($R^2 = .083$; $p <.001$), water resources ($R^2 = .106$; $p <.001$), farm animals ($R^2 = .098$; $p <.001$), planted trees and shrubs ($R^2 = .086$; $p <.001$), heritage resources ($R^2 = .092$; $p <.001$), and trails ($R^2 = .090$; $p <.001$) on the farm when participating in agritourism (Table 2). When controlling for other variables, age was negatively associated to the preference for water resources, farm animals, and trails in the farm, while positively associated with the presence of heritage resources. Respondents who live farther from urban areas have a stronger preference for seeing farm animals when engaging in agritourism activities.

Table 2
Multiple Linear Regressions of Socio-Demographic Characteristics and Levels of Agritourism Experience on Landscape Features Preferences

Independent Variables	DV – Landscape Features (standardized β and significance)					
	Wildlife	**Water**	**Animals**	**Trees**	**Heritage**	**Trails**
Age	.029	-.089*	-.138**	-.080	.088*	-.189***
Education level	.027	.021	-.004	-.037	-.024	.001
Annual household income	-.009	-.074	.010	-.059	.074	.002
Residence proximity to an urban area	.084	.059	.128**	.043	-.012	.052
First agritourism participation	.089*	.088*	.094*	.152**	.085	.049
Overall agritourism participation	.180**	.144**	.179**	.244***	.202**	.128**
Agritourism participation (last 5 years)	.022	.045	.023	-.049	.041	-.092
Agritourism participation (childhood)	.112**	.169**	.038	.021	.108*	.142**
p-value	<.001	<.001	<.001	<.001	<.001	<.001
R^2	.083	.106	.098	.086	.092	.090

*$p < .10$;   **$p < .05$;   ***$p < .001$

Results indicate that agritourism experience does shape landscape preferences when visiting a farm for agritourism. The furthest in the past had respondents engaged in agritourism for the first time, the stronger are their preferences for seeing wildlife, water resources, farm animals, and planted trees/shrubs in the farmland. The more respondents have engaged in agritourism throughout their life, the more they prefer to appreciate different natural, cultural, and agricultural features during their farm visits. Finally, the more exposure respondents had to

agritourism activities during their childhood, the more they prefer seeing wildlife, water resources, heritage resources and trails in the farm landscape. Education level, annual household income, and frequency of agritourism participation in the last five years were not associated with landscape preferences.

CONCLUDING REMARKS

This study shows that current and potential agritourists prefer seeing wildlife, water resources, and heritage resources in the farm landscape when participating in agritourism activities. In addition, results showed that socio-demographics (age, residence location) and levels of agritourism experience (first agritourism experience, frequency of agritourism participation over time and during childhood) are associated with preferences for appreciating different landscape features when visiting a farm for agritourism purposes. These results advance our understanding of the role that natural resources have on human behaviors, an overall under-explored topic (Henderson & Bialeschki, 2005). However, study results should be interpreted with caution, especially for generalization purposes, given the non-random nature of the study sample. Additionally, although a significant effort was placed in selecting three states representing different levels of agritourism development and a diversity of landscapes, results should not be extrapolated to other geographic regions with similar agritourism and landscape characteristics.

The outlined limitations associated with the study sample should not diminish the value of this exploratory study because it advances our understanding of the role of agricultural landscapes for agritourism purposes, and especially because of the practical implications this study carries for agritourism farmers. The recognition of landscape preferences can serve to enhance the farm aesthetic appeal, thus strengthen visitors' satisfaction levels by better responding to their needs and wants. The identification of demographic and agritourism experience indicators associated with landscape preferences provides marketing information to better target agritourists, thus increase farms' market share. For example, availability of water resources in the farmland should be advertised when promoting agritourism among younger audiences, while heritage resources when targeting older audiences. Advertising in specialized channels (e.g., agritourism magazines) should depict a variety of natural, agricultural and cultural landscape features to be more appealing to frequent agritourists.

While study results provide insight into the consumer's preferences for agricultural landscape features, it also sheds light into future research directions. Given that this study suggests that consumers, both current and potential agritourists, have different preferences for various agricultural landscape features, future studies should aim at unveiling farmers' perspectives of the landscape preferences of their clientele preferably using qualitative research methods. Similarly, it is advisable that future studies survey actual agritourists, on site if feasible, to better capture their preferences and account for romanticized images of the agricultural landscape commonly found in related literature (Buijs, Elands, & Langers, 2009). Finally, additional analysis is needed to explore preferences among different types of consumers and to deepen the examination within specific socio-demographic segments. For example, further analysis is needed to explore consumers' landscape preferences among residents living in different states, or residing in urban, suburbs, and rural areas, or between genders.

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