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Perceived Success in Agritourism: Results from a Study of US Agritourism Operators

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Abstract

Agritourism in the US is an emerging sector of the rural tourism economy and an increasingly popular choice for farmers interested in farm diversification. Motivations for engagement in agritourism are diverse, ranging from purely economic to social, familial, and personal. Recent studies have highlighted the benefits of agritourism for both providers and consumers, but there are still gaps in knowledge associated with success factors. To help fill these gaps, we use results from a national survey of agritourism operators to examine perceived success in achieving economic and non-economic goals. Focusing on the three goals ranked most important by agritourism operators, we apply ordinal logistic regression to measure associations between farmer-reported 'success,' farm demographics and farm characteristics. Operators who offer a broad array of products and experiences tend to perceive success across these goals. For example, operators who offer on-farm direct sales and accommodations have higher perceptions of their success at increasing revenue. Women tend to perceive less success in achieving revenue goals, highlighting an important direction of future research. These findings represent a significant contribution to the growing body of literature aimed at identifying success factors for agritourism and are valuable for agritourism operators, researchers, legislators, planners and other local decision-makers.

Keywords: agritourism, rural tourism, farm tourism, farm viability, success factors

Succès perçu en agrotourisme : Résultats d'une étude sur les exploitants d'agrotourisme aux États-Unis

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Résumé

L'agritourisme aux États-Unis est un secteur émergent de l'économie du tourisme rural et un choix de plus en plus populaire pour les agriculteurs intéressés par la diversification agricole. Les motivations pour s'engager dans l'agritourisme sont diverses, allant de purement économiques à sociales, familiales et personnelles. Des études récentes ont mis en évidence les avantages de l'agritourisme tant pour les fournisseurs que pour les consommateurs, mais il existe encore des lacunes dans les connaissances associées aux facteurs de succès. Pour aider à combler ces lacunes, nous utilisons les résultats d'une enquête nationale auprès des exploitants d'agrotourisme pour examiner le succès perçu dans la réalisation des objectifs économiques et non économiques. En nous concentrant sur les trois objectifs classés les plus importants par les exploitants d'agrotourisme, nous appliquons une régression logistique ordinale pour mesurer les associations entre le «succès» déclaré par les agriculteurs, la démographie des fermes et les caractéristiques des fermes. Les exploitations qui proposent une large gamme de produits et d'expériences ont tendance à percevoir le succès à travers ces objectifs. Par exemple, les exploitants qui offrent des ventes directes à la ferme et de l'hébergement ont une perception plus élevée de leur capacité à augmenter leurs revenus. Les femmes ont tendance à percevoir moins de succès dans la réalisation des objectifs de revenus, soulignant une direction importante de la recherche future. Ces résultats représentent une contribution significative au

corpus croissant de littérature visant à identifier les facteurs de succès de l'agrotourisme et sont précieux pour les exploitants d'agrotourisme, les chercheurs, les législateurs, les planificateurs et autres décideurs locaux.

Mots-clés : agrotourisme, tourisme rural, tourisme à la ferme, viabilité agricole, facteurs de succès

1.0 Introduction

Agritourism—visiting farms, ranches, and vineyards for experiences and product sales—is an important subset of rural tourism and is of growing interest to farmers and tourists alike due to increased interest in outdoor recreation and demand for local foods (Bagi & Reeder, 2012; Carpio et al., 2008; Chase & Grubinger, 2014; Quella et al., 2021). Agritourism offers farmers the potential to diversify income sources, create employment opportunities for family members, use underutilized farm resources, and diversify farm risk (Carter, 1998; Fuller, 1990; Veek et al., 2006). Small and medium farms in the US, in particular, are vulnerable to economic decline due to the impacts of globalization and climate change. However, past research suggests that non-production income can help stave off extreme financial stress due to loss of production-related income, and agritourism has been identified as a strategy to keep these farms viable (Key, 2019; Whitt et al., 2019). Indeed, the most recent Census of Agriculture data suggests many farmers are diversifying: agritourism revenue (exclusive of product sales) more than tripled between 2002 and 2017. In addition, agritourism revenue adjusted for inflation grew from $704 million in 2012 to almost $950 million in 2017 (USDA NASS, 2019; Whitt et al., 2019).

Agritourism is generally perceived as positive for farmers, consumers, and community members for both economic and non-economic reasons (Tew & Barbieri, 2012). Studies suggest that agritourism may help boost local economies by alleviating unemployment, contributing to the tax base, and stimulating other local businesses (Andereck & Vogt, 2000; Barbieri, 2009; Sharpley, 2007; Veeck et al., 2006). Non-economic benefits, such as preserving local heritage, rural land conservation, and environmental benefits, have also been reported (Tew & Barbieri, 2012). LaPan and Barbieri (2014) find that agritourism operators can preserve tangible heritage in their farmlands, while Whitt, Low & Van Sandt (2019) noted agritourism's potential to educate the public about agriculture.

While agritourism research has increased steadily over the past decade, recent agritourism studies have noted a paucity of evidence on the information needed for agritourism operators to make sound business decisions, capitalize on national and local trends, and make informed investment and marketing decisions (Rozier Rich et al., 2016). In particular, national-level agritourism data in the US are extremely limited, thus making operator decision-making even more constrained.

To address these gaps, we conducted a national-level agritourism survey gathering data on firmographic information, product and experience offerings, motivations and goals, plans for agritourism, challenges, supports for success, and assistance needed. Past research suggests that farmers engage in agritourism for a variety of reasons, and thus 'success in agritourism' is not a one-size-fits-all concept. In order to help clarify operator success in agritourism, we focused on the following research questions: "What are the primary goals of US agritourism operators?" and "What farm characteristics, if any, contribute to increased perceptions of success in achieving agritourism goals?"

To answer these questions, we used data from a national online survey to create regression models for each of the three most important agritourism goals as the dependent variable and farm characteristics as independent variables.

2.0 Background and Conceptual Model

2.1 Defining Agritourism

One of the biggest challenges in agritourism research is the lack of consistent terminology and definition, particularly in the US, where agritourism policy is determined at the state, county, or even town level. Researchers have noted that the lack of consistency makes inter-study comparison difficult, and 'inconsistency in branding diminishes marketing effectiveness and hinders stakeholders' collaboration in agritourism' (Rauniyar et al., 2020, p. 7). For our survey, Chase et al.'s (2018) conceptual framework of five categories of agritourism provided the basis for our definition of agritourism: on-farm direct sales (such as u-pick and farm stands), education (such as classes and tours), entertainment, and events (such as corn mazes and on-farm festivals), hospitality (such as farm stays and dinners on farms), and outdoor recreation (such as horseback riding, fishing and hunting on farms and ranches). For this study, we considered agritourism to be any on-farm activities that involved visitors, paid or unpaid, including direct sales on farms.

2.2 Motivation and Goals

To understand success factors, it is crucial to understand how success is defined for operators and their businesses. Assessing perceptions of success and their effects on small firm performance, Reijonen and Komppula (2007) reported that non-financial measures of success are influenced by owner motivations and goals, which in turn influence financial performance. The authors also found that the small firm owners they studied were not necessarily profit-maximizing and were, therefore, likely to measure success by other criteria, such as job satisfaction and satisfied customers.

There is also evidence that entrepreneurial goals are notably different for women and men. McGehee et al. (2007) concluded that while the alternative agriculture goals of women and men were similar, the meaning and context of these goals differed widely. For example, both women and men sought independence, an opportunity to contribute to the community, and a diversity of products. However, when examined more closely, in the context of independence, women were more focused on *expense-reducing* while men preferred *income-inducing* activities. In a study on entrepreneurs' perceptions of success, Justo et al. (2006) found not only are definitions of success gendered, but they also depend on family factors, in particular parental status. They concluded that, compared to other types of entrepreneurs, women entrepreneurs with dependent children placed more importance on independence as a measure of success. More recent research suggests that, while women agritourism operators are perceived to be less successful than men economically, this is in part due to divergent and more comprehensive definitions of success used by women, which include other non-economic goals (Halim et al., 2020).

Findings specifically on agritourism operator motivations and goals are documented in previous literature. It is widely acknowledged that operator goals can be complicated, varied, and nuanced (Barbieri & Mahoney, 2009; Nickerson et al., 2001; Ollenburg& Buckley, 2007). In addition, the broad definition of agritourism can make operators' goals challenging to measure (Ollenburg& Buckley, 2007). Goals associated with agritourism vary widely depending on

region, agricultural product, individual characteristics, household position, gender, and stage in the business life cycle (McGehee et al., 2007; Nickerson et al., 2001; Ollenburg& Buckley, 2007).

Nickerson et al. (2001) identified eleven motivations for diversification into agritourism that they further categorized into social reasons, economic reasons, and external influences. They further classified three types of farm/ranch entrepreneurs: (1) the *multidimensionals*, who have a variety of reasons for diversifying; (2) the *economists*, who are influenced by finances; and (3) the *influentials*, who are mostly influenced by outside forces. They found that these types of farmers differed based on location in their state.

McGehee & Kim (2004) took this classification one step further and analyzed it through Weber's theory of formal (economically oriented) and substantive (non-economic) rationality. They found that, while each operation had its place on the formal-substantive continuum, certain variables were associated with where they fell on the continuum. Specifically, acres-owned, dependence on farming operation, household income, and the existence of pick-your-own produce as a primary activity influenced motivations for agritourism business.

Other factors influencing motivations in agritourism include education, age of the operator, financial condition, and location of the farm (Khanal & Mishra, 2014). Chiodo et al. (2019) determined that goals also varied between beginning farmers and experienced farmers. Finally, using qualitative analysis, Quella et al. (2021) found that while operator motivations can be organized into thematic categories, the reality is that operator motivations are highly nuanced and intertwined, with farmer decisions at times failing to match professed goals.

2.3 Success Factors

While the literature suggests that definitions of success vary widely, most past studies of variables associated with success in agritourism have defined success by purely economic terms (Barbieri & Mshenga, 2008; Khanal & Mishra, 2014; Schilling et al., 2014; Lucha, 2016). A notable exception is Tew and Barbieri's 2012 study on the influence of farm and household characteristics on agritourism goals. They found operator age, operator off-farm employment, number of full-time, year-round employees, years in agritourism, and number of marketing methods used all had significant associations with four categories of operator goals.

Other studies linking farm attributes and profitability have found that "length of time in business, the number of employees and the farm acreage have a positive impact on performance in terms of annual gross sales of agritourism farms" and "owners of farms with greater annual gross sales than the rest are male or white or their main occupation is farming" (Barbieri & Mshenga, 2008, p. 1). Whitt et al. (2019) reported factors with a significant positive impact on agritourism economic activity included being located near natural amenities or in close proximity to other outdoor activities, being located in a more populated county, and producing grapes, fruit, and tree nuts, and specialty livestock. Schilling et al. (2014) found that agritourism positively affected profitability for small and intermediate farms, but not for commercial farms, though profit impacts differed based on the definition of agritourism used.

Financial measures, however, are only one way to define success. Fisher et al. (2014) studied perceptions of entrepreneurial success with the aim of developing a measurement scale for future research. Specifically, though there are many proxies used to measure entrepreneurial success, they focused on *perceptions* of success in order to produce something both meaningful and relevant to

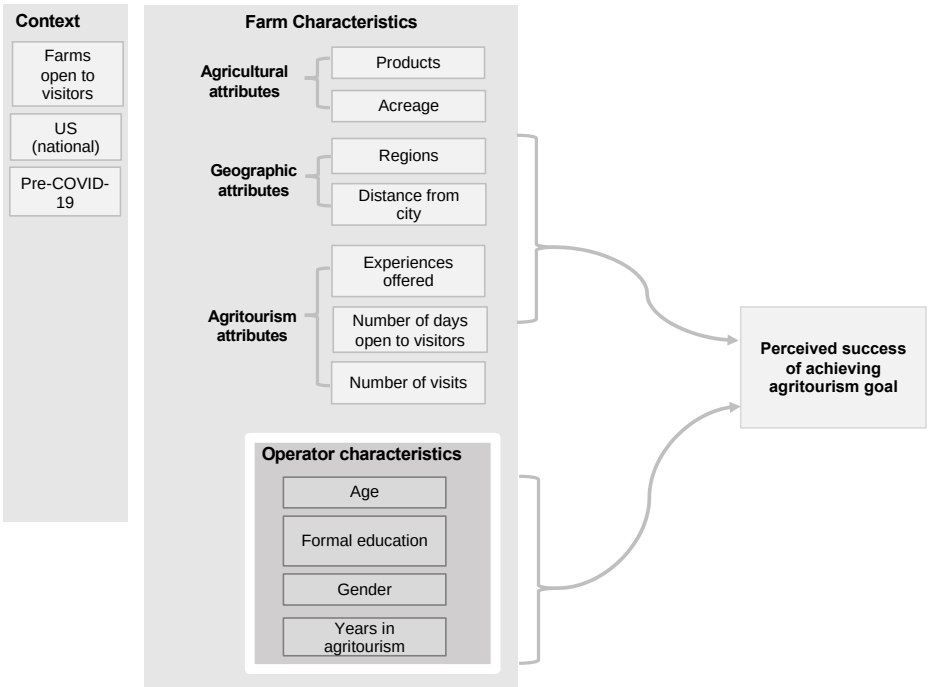
entrepreneurs themselves. They concluded that entrepreneurial success is indicated through macro and micro indicators, including a mix of personal goals and business achievements, all of which are personalized to each entrepreneur and business individually. Success is thus a mixture of financial and psychological performance measures as defined by each entrepreneur.

More recently, Quella et al. (2021) analyzed interviews with agritourism operators across the country to further expand on operator definitions of success. Like others, they found that while financial goals were important, other goals related to community participation and families were just as much a priority for some farms. They posited that community engagement, including education and community leadership, could also be used as a way to reduce intergroup prejudice between non-farmers and farmers and improve community relationships.

2.4 Conceptual Framework and Hypotheses

Based on the previous literature, we hypothesized that the following variables could have relationships to perceived success in achieving agritourism goals related to revenue and family employment: farm production activities, products, size of the farm (in acres), location (region, distance from city), agritourism experiences offered, number of days open to visitors, number of visits, operator age, the highest level of formal education, gender, and level of experience (years in agritourism). Therefore, we organized variables into two general categories: farm characteristics and operator characteristics. Farm characteristics were further subdivided into agricultural, geographic, and agritourism attributes. Figure 1 shows a conceptual model of variables in relation to the research question "What farm characteristics, if any, contribute to increased perceptions of success in achieving agritourism goals?"

Figure 1. Conceptual model of perceived success in agritourism goals.



Source: Authors.

3.0 Materials and Methods

3.1 Survey Development and Sampling Methods

Beginning in November 2019 and ending in February 2020, we administered an online survey throughout the US titled "National Agritourism & Direct Sales Survey." The survey was developed based on previous literature and informed by findings from 23 semi-structured interviews. We used survey instruments from previous research projects to design our questionnaire, with a focus on consistency in questions and parameters (Barbieri, 2013 Barbieri & Mahoney, 2009; Chase et al., 2018; Gaede et al., 2016; Schilling et al., 2006; Tew & Barbieri, 2021). The definition of agritourism used in this survey is consistent with published research, and the survey questions have been vetted and used repeatedly by respected researchers in the field of agritourism. This definition differs from the USDA NASS Census of Agriculture definition in several respects, such as the inclusion of on-farm direct sales and nonedible products. For questions related to agricultural products, response options were categorized based on the USDA National Agricultural Statistics Service (NASS) Census categories, which use the NAICS classification system.

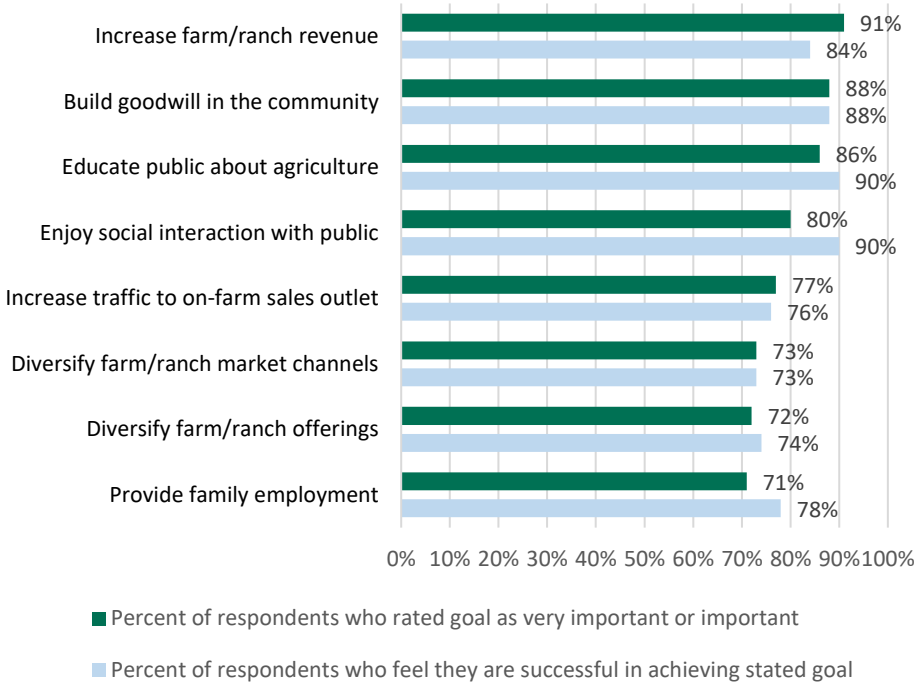
Respondents were screened using a required filter question asking if they had visitors to their farm, ranch, or vineyard. Respondents with direct-to-consumer sales that only took place off-farm (such as farmer's markets) were not included.

The snowball sampling method was used to identify suitable respondents from a population that is not easily accessible to researchers (Biernacki & Waldorf, 1981; Goodman, 1961). An online survey link was sent to researchers, Cooperative Extension System colleagues, agritourism associations, and tourism and agriculture state departments in all 50 states. These contacts forwarded the online survey link via listservs and professional networks and shared the link through newsletters, social media, and other communication channels targeting agritourism operators.

3.2 Analytic Strategy

Based on the survey results, we identified the goals that the respondents felt were most important. Figure 2 shows the percentage of respondents who rated a particular goal as "important" or "very important" and the percentage of respondents who feel "successful" or "very successful" in achieving a stated goal, on a five point Likert scale. The number of respondents varied among elements from 1222 to 1482, due to skipped responses. We report on all surveys that responded to any of these questions rather than only those that answered all. We acknowledge that either approach would lead to gaps, but choose to report on all responses to give a more complete report on response.

Figure 2. Agritourism operator goals.



Respondents also rated goals on a five-point Likert scale: "Very Successful," "Somewhat successful," "Neither successful nor unsuccessful," "Somewhat unsuccessful," "Very unsuccessful," and "Not applicable/not sure." "N/A" was recoded as missing. From those responses, we identified the goals that respondents felt were the most important: increasing farm/ranch revenue, building goodwill in the community, and educating the public about agriculture. We chose these goals because we wanted to focus on information that would have the highest impact on agritourism operators and researchers. Previous studies have highlighted the importance of community-related non-economic goals (McGehee & Kim, 2004; Quella et al., 2021).

Using Stata Version 16, we ran an ordinal logistic regression to determine which variables, if any, were statistically significantly associated with a higher or lower likelihood of perceptions of success in achieving each of the three goals.

The dependent variables for the regressions were:

- How successful are you at increasing farm revenue?
- How successful are you at building goodwill in the community?
- How successful are you at educating the public about agriculture?

Independent variables were recoded for regression analysis. Table 1 shows the final set of independent variables with their respective questions and recoding. A handful of regressors (number of visits and years in agritourism) were removed from the final models as a response to reviewer feedback surrounding potential endogeneity. We further removed producer age owing to high non-response rates on this variable. We used a logarithmic transformation for variables with broad distributions to normalize the data.

Table 1. *Independent Variable for Ordinal Regression Analysis*

Variable	Question	Code
Animals & animal-related products	What type of products did you produce on your farm/ranch in 2018?	1 = produced 0= not produced
Crops		
Value-added products		
Log total acreage	How many acres is your farm/ranch?	
Southern region	Please choose the state in which your farm/ranch is located.	1 = state in USDA ARS region 0 = not in region
Midwest region		
Western region		
Distance from city	How far is your farm/ranch from the nearest city of at least 50,000 people?	1 = 0 miles; 2 = 2.5 3 = 7; 4 = 19.5 5 = 39.5; 6 = 59
On-farm direct sales	Which of the following experiences did your farm/ranch offer in 2018?	1 = offered 0 = not offered
Accommodations		
Educational experiences		
Entertainment & events		
Outdoor recreation		
Off-farm sales		
Number of days open to visitors	About how many days per year is your farm/ranch operation open to visitors?	
Formal education	Please choose your highest level of formal education.	high school = 12 some college = 13 tech = 14; 4 year = 16 post grad = 20
Gender	Please indicate your gender identity.	1 = female 0 = not female

*We acknowledge that gender is non-binary. Our final sample included one non-binary person. For our results, we will be referring to respondent samples more generally as male and female or men and women.

We tested for multicollinearity among independent variables. The Variance Inflation Factors ranged from 1 to 10, suggesting a low degree of multicollinearity. We also ran a restricted model excluding any variable with a Wald statistic less than 1. The results of a Likelihood Ratio test suggested the use of the full models.

4.0 Results and Discussion

4.1 General Survey Results

We received useable responses from 1,834 farms representing all 50 states, with the largest contributions of data coming from Vermont, Oregon, Tennessee, and California. Respondents' average age was 55, and the majority (58%) were women. Almost three-quarters had a college degree. Most farms were between 10 and 49 miles from a city of 50,000, and the average acreage was 370 acres. Over 25% of responding farms made no profit from agritourism or operated agritourism enterprises at a loss in 2018. Seven percent of farms generated profits over $100,000 from agritourism, and the largest number of responding farms generated profits between $10,000 and $100,000 from agritourism. Since the survey was conducted in the winter of 2019-20, responses reflect the state of agritourism in the US before the COVID-19 pandemic.

4.2 Motivations and Goals

Respondents ranked the level of importance (from "Not at all important" to "Very important") and level of success ("Very unsuccessful" to "Very successful") in regard to motivations and goals in their development of agritourism operations, including on-farm direct sales (see Figure 2). Over 90% of respondents felt that increasing farm/ranch revenue was important or very important to their agritourism operation. Generally, respondents felt they had been successful in all the goals listed, though community- and education-related goals were notably more successful than the rest.

Though farmers reported success in reaching goals, the relative levels of success achieved in meeting different goals did not mirror the importance of their goals, with the greatest successes (90% of respondents) reported in educating the public about agriculture and enjoying social interactions. Additionally, 88% of respondents felt successful in building goodwill in their community. Less successful were farm viability and market-related goals, such as increasing revenue, diversifying market channels and offerings, and increasing traffic to on-farm sales. Finally, in the realm of family goals, providing family employment was in the midrange of success.

4.3 Regression Results

Tables 2-4 provide results for each dependent variable; Table 5 gives a summary of the three regression results.

Table 2. *Ordered Logistic Regression Results for the Goal of Increasing Farm/Ranch Revenue*

Increasing farm/ranch revenue	**Odds Ratio**	**St.Err.**	**t-value**	**p-value**	**Sig.**
Animals & animal products	**0.719**	**0.087**	**-2.74**	**0.006**	*******
Crops	0.881	0.107	-1.05	0.295	
Value-added products	**1.258**	**0.150**	**1.93**	**0.054**	*****
On-farm direct sales	**1.963**	**0.316**	**4.18**	**0.000**	*******
Accommodation & lodging	**1.508**	**0.232**	**2.67**	**0.008**	*******
Educational experiences	0.993	0.120	-0.05	0.957	
Entertainment & events	1.188	0.141	1.45	0.146	

Table 2 continued

Outdoor recreation	**1.256**	**0.168**	**1.71**	**0.088**	*
Off-farm sales	**0.762**	**0.091**	**-2.28**	**0.023**	**
Number of days operating	**1.001**	**0.000**	**2.40**	**0.016**	**
Formal education	**0.941**	**0.020**	**-2.88**	**0.004**	***
Gender (female=1)	**0.760**	**0.087**	**-2.39**	**0.017**	**
Total farm acreage (log)	**1.121**	**0.038**	**3.36**	**0.001**	***
Distance from the city	**0.993**	**0.003**	**-2.71**	**0.007**	***
Southern region	1.014	0.157	0.09	0.931	
Midwest region	0.962	0.161	-0.23	0.819	
Western region	**1.473**	**0.245**	**2.33**	**0.020**	**
Pseudo r-squared	0.036	Number of obs		1212	
Chi-square	101.79	Prob > chi2		0.000	
Akaike crit. (AIC)	2754.02	Bayesian crit. (BIC)		2861.12	

*** p<.01, ** p<.05, * p<.1*

Table 3. *Ordered Logistic Regression Results for the Goal of Educating the Public About Agritourism*

Increasing farm/ranch revenue	**Odds Ratio**	**St.Err.**	**t-value**	**p-value**	**Sig.**
Animals & animal products	1.064	0.131	0.50	0.617	
Crops	**0.806**	**0.101**	**-1.72**	**0.086**	*
Value-added products	**1.229**	**0.150**	**1.69**	**0.091**	*
On-farm direct sales	**1.963**	**0.316**	**4.18**	**0.000**	***
Accommodation & lodging	1.019	0.160	0.12	0.905	
Educational experiences	**2.840**	**0.357**	**8.30**	**0.000**	***
Entertainment & events	0.954	0.116	-0.38	0.701	
Outdoor recreation	**0.636**	**0.086**	**-3.35**	**0.001**	***
Off-farm sales	0.873	0.106	-1.12	0.264	
Number of days operating	1.000	0.000	-0.55	0.581	
Formal education	**0.962**	**0.021**	**-1.73**	**0.083**	*
Gender (female=1)	1.212	0.143	1.64	0.102	
Total farm acreage (log)	**1.077**	**0.038**	**2.13**	**0.033**	**
Distance from the city	0.999	0.003	-0.43	0.669	
Southern region	1.104	0.177	0.62	0.536	
Midwest region	1.031	0.177	0.18	0.860	
Western region	**1.341**	**0.228**	**1.73**	**0.085**	*
Pseudo r-squared	0.044	Number of obs		1208	
Chi-square	104.47	Prob > chi2		0.000	
Akaike crit. (AIC)	2324.34	Bayesian crit. (BIC)		2431.37	

*** p<.01, ** p<.05, * p<.1*

Table 4. *Ordered Logistic Regression Results for the Goal of Building Community Goodwill*

Increasing farm/ranch revenue	**Odds Ratio**	**St.Err.**	**t-value**	**p-value**	**Sig.**
Animals & animal products	0.903	0.109	-0.85	0.395	
Crops	1.163	0.142	1.24	0.215	
Value-added products	1.091	0.131	0.72	0.472	
On-farm direct sales	1.165	0.188	0.95	0.343	
Accommodation & lodging	0.787	0.120	-1.57	0.117	
Educational experiences	**1.247**	**0.152**	**1.81**	**0.070**	*
Entertainment & events	**1.308**	**0.157**	**2.23**	**0.026**	**
Outdoor recreation	**0.745**	**0.099**	**-2.20**	**0.028**	**
Off-farm sales	0.844	0.102	-1.40	0.161	
Number of days operating	1.001	0.000	1.56	0.119	
Formal education	**0.947**	**0.020**	**-2.53**	**0.012**	**
Gender (female=1)	1.097	0.128	0.79	0.427	
Total farm acreage (log)	1.023	0.036	0.64	0.522	
Distance from the city	0.997	0.003	-1.24	0.214	
Southern region	0.968	0.152	-0.21	0.834	
Midwest region	0.861	0.147	-0.88	0.380	
Western region	1.138	0.191	0.77	0.444	
Pseudo r-squared	0.015	Number of obs		1212	
Chi-square	37.87	Prob > chi2		0.003	
Akaike crit. (AIC)	2448.57	Bayesian crit. (BIC)		2555.67	

*** $p<.01$, ** $p<.05$, * $p<.1$

Table 5 shows variables significantly correlated with perceptions of success with the dependent variable on an ordinal scale. A positive variable indicates a higher likelihood of reported success. A negative variable indicates a lower likelihood of reported success.

4.3.1. Increasing farm/ranch revenue. For the goal of increasing farm or ranch revenue—an important goal for 91% of respondents—many significant and positive variables emerged. Offering on-farm sales and accommodations/lodging had positive associations with increased success, as did the number of days open, farm acreage, and being in the Western region. Variables with negative associations included working with animals/animal products, operator education, gender (female) and distance from the city. The positive effect of on-farm sales and different food and experiential products is similar to previous findings by Tew and Barbieri (2012) that agritourism operators may benefit from multiple income channels.

"Formal education" and "female gender" both had significant and negative associations with perceived success at increasing farm/ranch revenue. For "formal education," this may be due to several factors. First, since we measured perceptions of success, perhaps those with higher levels of education perceive success as more difficult to achieve. Previous studies on education and success

in self-employment reported that, generally, education has a stronger positive association with success in entrepreneurship than experience alone (Robinson & Sexton, 1994). However, this study uses earnings as a measure of success and therefore is subject to the issues of self-perception mentioned above.

Table 5. *Summary of Regression Results*

Goal	**Significant independent variables**	
Increase farm/ranch revenue	(+) Value-added products	(-) Animals & animal products
	(+) On-farm direct sales	(-) Off-farm sales
	(+) Accommodations & lodging	(-) Formal education
	(+) Outdoor recreation	(-) Gender (female=1)
	(+) Number of days operating	(-) Distance from the city
	(+) Total farm acreage (log)	
	(+) Western region	
Educate the public	(+) Value-added products	(-) Crops
	(+) On-farm direct sales	
	(+) Educational experiences	
	(+) Total farm acreage (log)	(-) Outdoor recreation
		(-) Formal education
	(+) Western region	
Build goodwill	(+) Educational experiences	(-) Outdoor recreation
	(+) Entertainment & events	(-) Formal education

The negative association with "female gender" is consistent with previous findings on economic gains among women agritourism operators (Barbieri & Mshenga, 2008; Hollas et al., 2021). As mentioned in section 2.0, previous studies have criticized the use of economic indicators as measures of entrepreneurial performance (Ahl, 2006). In addition, other studies have noted that female agritourism operators have markedly different goals than their male counterparts; therefore, negative associations between profitability and gender should be interpreted in that context (Halim et al., 2020). Our findings suggest that women agritourism operators who have the goal of increasing farm/ranch revenue are less likely to feel successful in achieving that goal, thus suggesting consistency between the perceived and actual achievement gap between male and female operators.

4.3.2. Educate the public. Educating the public about agriculture is a motivator for farmers/ranchers engaged in agritourism and is well documented in the literature as a crucial part of operator engagement, as discussed in section 2.0 of

this article. Unsurprisingly, offering education as an agritourism experience has a strong positive association with perceived success in education-related goals. Other significant variables associated positively with perceived success in education goals include offering value-added products and on-farm sales.

"Outdoor recreation" has a negative association with perceived success in the model, which is perhaps due to the fact that many outdoor recreation activities, such as skiing, hiking, and wildlife viewing, are low-interaction experiences that do not provide agricultural education for the visiting public. The negative effects of offering crops may have a similar explanation. The negative effect of operator formal education is also subject to the aforementioned issues of self-perception.

4.3.3. Building goodwill. The significant positive coefficients in the model for the goal of building goodwill in the community—offering educational experiences and entertainment—suggest that, when building community goodwill, offering interactive experiences is key. Conversely, the negative association with outdoor recreation in this final model may again be attributable to decreased interactions and focus on recreation to the detriment of other forms of community engagement. Lastly "formal education" is again negatively associated with self-perceived success.

5.0 Conclusion

Agritourism operator goals are as varied as farm businesses themselves, and perceived success in achieving goals depends on a variety of factors, including the goal itself. Perhaps the most important theme is the importance of offering a variety of both food and experiential products. The negative relationship between two out of three goals and "outdoor recreation" also supports the conjecture that having a farm property open to the public might not be enough to support some agritourism goals and that visitor interactions drive the "tourism" part of 'agritourism.'

Gender is another noteworthy theme. While it is well documented that women, on average, are less likely to meet revenue goals, we found no significant association between gender and education or goodwill goals. This highlights the nuanced role of gender in agritourism management, a topic we posit as an important future research direction.

As noted earlier, agritourism operators benefit from information that helps them guide their businesses. Using the results from our analysis, our findings indicate that operator goals are divergent and, while there were commonalities between goals, variables influencing success are specific to a given goal. Our hope is that operators use this information as a guide for making decisions for their businesses, their families, and their communities by providing potential success factors tailored to specific goals.

Our results contribute to the growing body of research on success in agritourism. Due to the limited amount of national-level agritourism data, this study adds novel information to the literature. Given that there is no 'one-size-fits-all' approach to agritourism ventures, decision-makers at all levels of government and support organizations who want to help agritourism operators should consider policies that give them maximum flexibility. Our findings show that operators have many different goals for their agritourism businesses; given all the benefits of agritourism, policymakers should also consider support for operators to explore offering different experiences and products with less financial risk.

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Declaration of Interest Statement

The authors declare no competing interests.

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