

IMPORTANCE OF AGRITOURISM FOR AGRIPRENEUR GOAL  
ACCOMPLISHMENT

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by  
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The undersigned, appointed by the Dean of the Graduate School, have examined the thesis entitled

IMPORTANCE OF AGRITOURISM FOR  
AGRIPRENEUR GOAL ACCOMPLISHMENT

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A candidate for the degree of Master of Parks, Recreation and Tourism

And hereby certify that in their opinion it is worthy of acceptance.

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## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	ii
LIST OF TABLES .....	v
ABSTRACT .....	vii
Chapter	
1. INTRODUCTION .....	1
Study Purpose and Objectives .....	3
Need for the Study .....	4
Definitions.....	6
2. LITERATURE REVIEW .....	9
Defining Agritourism.....	9
Agripreneur Goals.....	11
The Benefits of Agritourism .....	13
The Economic Impacts of Agritourism for the Farm Household .....	15
The Intrinsic Impacts of Agritourism for the Farm Operator .....	18
3. RESEARCH METHODS .....	19
Research Design.....	19
Study Population and Sample .....	19
Survey Instrument.....	20
Survey Administration .....	23
Response Rate and Data Preparation .....	25
Statistical Analysis.....	27
4. RESULTS .....	29

Profile of Responding Farmers and their Farms .....	29
Economic Profile of Responding Farms .....	33
Attributes of Missouri Farm Offerings .....	35
Availability of Missouri Agritourism Offerings .....	39
Management and Marketing Resources of Missouri Agritourism Farms.....	41
Overall Performance of Agritourism as Perceived by Agripreneurs .....	45
Importance of Agritourism for Entrepreneurial Goal Accomplishment.....	47
Attributes Associated with Goal Accomplishment Importance.....	51
5. CONCLUSIONS.....	54
Discussion .....	54
Implications.....	61
Study Limitations.....	62
Recommendations for Future Research .....	63
REFERENCES .....	65
APPENDIX .....	69
A. Institutional Review Board Approval .....	69
B. Questionnaire .....	71

## LIST OF TABLES

Table	Page
Table 1. Date and number of communications sent.....	25
Table 2. Study sample size and response rate.....	26
Table 3. Study objectives and statistical analysis .....	28
Table 4. Size and location of responding farms.....	30
Table 5. Ownership and operator structure of responding farms.....	31
Table 6. Profile of responding farm households.....	32
Table 7. Non-recreation enterprise lines of responding farms.....	33
Table 8. 2008 Farm gross sales and recreation-related sales percentages and perceived importance for the continued operation of the farm.....	35
Table 9. Types and diversity of recreational activities offered by farms in Missouri .....	37
Table 10. Types of hospitality services offered by farms in Missouri.....	38
Table 11. Types and numbers of agritourists visiting Missouri farms .....	39
Table 12. Days, months and years receiving visitors on Missouri agritourism farms in 2008 .....	40
Table 13. Percentage and description of fees charged for agritourism activities .....	41
Table 14. Number of employees of Missouri agritourism farms working in agritourism and overall farm activities by employment category .....	42
Table 15. Family members employed on the farm .....	43
Table 16. Number and types of marketing methods used by agritourism farms .....	44
Table 17. Availability of business and marketing plans and association membership of agritourism farms .....	45

Table 18. Indirect indicators of overall agritourism satisfaction .....	46
Table 19. Stated farm economic situation and changes in farm profits after offering agritourism activities .....	47
Table 20. Perceived importance of agritourism to accomplish various agripreneur goals.....	48
Table 21. Perceived importance of agritourism to accomplish various agripreneur goals by goal dimensions .....	49
Table 22. Multiple linear regressions of farm and household characteristics on the importance means for goal accomplishment .....	52

## **ABSTRACT**

This study examines the importance of agritourism in accomplishing 16 economic and intrinsic entrepreneurial goals for farm operators receiving visitors for recreation, tourism or leisure activities, as well as the farm household and business attributes associated with the importance of agritourism in the accomplishment of goals in four dimensions driving agritourism development. Researchers collected data from Missouri farmers with diversified enterprises as identified by the Missouri Department of Agriculture, an internet search and snowball techniques. Study results indicated Missouri agripreneurs are rooted in the business of agriculture, rather than maintaining the farm solely to landscape a tourism destination. Respondents indicated that agritourism is important to accomplishing their goals in four dimensions: Farm Profitability, Market Driven, Family Connections, and Personal Pursuits. Four significant regression models also showed associations between farm business and household attributes and the importance of agritourism in accomplishing goals within those four dimensions.

# CHAPTER I

## INTRODUCTION

The agricultural context in the United States has gone through several structural changes in the last three decades, including the development of different enterprises using farm resources (Barbieri, Mahoney & Butler, 2008; Nickerson et al., 2001). Diversifying a farm to include recreation and leisure activities into agritourism is increasingly being adopted in the United States and is suggested to bring a myriad of economic and intrinsic benefits to farmers, visitors and communities. Agritourism promises the benefits of keeping family farms in business and preserving American agricultural heritage, maximizing the productivity of farmland resources through their recreational use, and even improving the economic situation of local communities (Ollenburg & Buckley, 2007; Veeck et al., 2006; Wilson, Thilmay & Watson, 2006; Nickerson et al., 2001; Ilbery, 1991).

From the farm unit perspective, agritourism is suggested to increase farm revenues and serve other farmer goals (Ollenburg & Buckley, 2007; McGehee & Kim, 2004; Nickerson et al., 2001). Farms that diversify into agritourism are likely to utilize existing resources or other low-input options (Fisher, 2006). Additional economic support for the farm business is especially important in the current time due to increased land values and agricultural input costs (Salamon, 2003; Busby & Rendle, 1999; Ilbery, 1991).

While the practices and benefits associated with agritourism development are a common topic in Europe, blending aspects of tourism and agricultural production has

been explored in a relatively limited scope in North America (Barbieri, Mahoney & Butler, 2008) and it has covered only a small number of regions in the United States (Barbieri & Mahoney, 2009; Veeck, Che & Veeck, 2006; Nickerson, Black & McCool, 2001). Specifically, although Bird (1963) and Miller (1972) report that the concept of visiting Missouri farms for recreation and leisure was studied and promoted as early as the 1960s, no recent studies were found related to agritourism in Missouri.

Despite the growing body of agritourism research, the literature remains somewhat inconclusive regarding the potential benefits of the industry, especially concerning the agritourism provider. That lack of consistency may be due to the broad range of activities, operational scale and level of involvement found in agritourism. However, one of the primary reasons appears to be the complex set of economic and non-economic goals associated with agritourism development (Barbieri, 2009; Ollenburg & Buckley, 2007; McGehee & Kim, 2004; Nickerson et al., 2001).

This study examines the importance of agritourism for entrepreneurial goal accomplishment as perceived by farmers. Taking into account the entrepreneurial nature of agritourism (Nickerson et al., 2001), this study deems it important to assess the importance of agritourism the accomplishment of several economic and intrinsic goals suggested to drive agritourism development in an effort to accurately portray the potential benefits for providers within the industry. Given the broad set of goals driving agritourism development, this study assesses goals associated with four dimensions as were found to be relevant among North American agripreneurs (i.e., agriculture-based entrepreneurs): farm profits, market opportunities, family links to farming and personal pursuits (Barbieri, 2009).

Understanding the importance of agritourism for entrepreneurial goal accomplishment as perceived by farmers is critical because as the agricultural context changes and costs associated with production increase attention may be directed to opportunities for diversification within the farm business (Salamon, 2003; Ilbery, 1991). Agriculture remains an important component of the state economy in Missouri, as well as one of the state's top industries (United States Department of Agriculture [USDA]: National Agricultural Statistics Service [NASS], 2007). Resources to assist in capitalizing on opportunities for the development of agritourism activities and programs have been made available through the state's Department of Agriculture (Missouri Department of Agriculture [MDA], 2009). However, additional exploration is necessary.

### **Study Purpose and Objectives**

This study explores the perceived importance of agritourism in the accomplishment of different economic and intrinsic entrepreneurial goals. Economic goals relate to financial and market drivers, such as reducing debts, while intrinsic goals include personal and family pursuits. The study also identifies farm household and business attributes related to those economic and intrinsic goals for agritourism.

Specifically, this study addresses the following two objectives:

1. To examine the level of importance of agritourism in accomplishing 16 economic and intrinsic entrepreneurial goals of agritourism providers representing four goal dimensions associated with agritourism: Firm profitability; market driven; family connections; and personal pursuits.

2. To identify farm household and business attributes related to the importance of agritourism in accomplishing the four entrepreneurial goal dimensions.

For the purposes of this descriptive-relational type study (Ary, Jacobs, Razavieh & Sorensen, 2006), research objectives were used rather than a non-directional hypothesis as the research was not experimental in nature (Patten, 2009).

### **Need for the Study**

In contrast to Western Europe where on-farm recreation and leisure activities are relatively entrenched, agritourism in North America remains an area of limited understanding. While studies have been conducted in several states, including Texas, Michigan, and Virginia, the agritourism industry stands to benefit from additional research (Barbieri & Mahoney, 2009; Barbieri et al., 2008; Veeck et al., 2006). Furthermore, the existing research on agritourism in Missouri dates to a regional study of on-farm recreational activities conducted in northeastern Missouri during the early 1960s. In addition, this study subscribed to a description of the recreational activities available, including hiking and picnicking on privately owned land (Miller, 1972; Bird, 1963), leaving room for more in-depth inquiry.

Specifically, little is known regarding the impacts of agritourism on the farm. The economic benefits of agritourism are not yet established, and have been an area of disagreement in the literature. There is a documented perception among producers that agritourism may serve as an acceptable method of creating an alternative income in the case of a poor production year (Juixia & Jigang, 2007; Ollenburg & Buckley, 2007;

Fisher, 2006) or to cope with the challenges of rising long-term costs for agricultural inputs and technologies coupled with lower crop prices (Barbieri & Mahoney, 2009; McGeehee, 2007; Nickerson et al., 2001). In addition to creating an alternative source of income from the farm, diversifying farms into tourism has been suggested as a means of expansion for some (Ilbery, 1991).

In contrast, some studies have shown that the benefits of agritourism for the farm are slight and that barriers to involvement are high. Perceptions are generally positive toward the introduction of tourism in rural areas, following the belief that blending the two industries may alleviate local issues, including labor shortages in tourism and market shortages in agriculture (Torres & Momsen, 2004; Andereck & Vogt, 2000). Although, in a study of poverty stricken areas in Mexico, proximity to rural areas and production agriculture rarely resulted in connections to the tourism industry (Torres & Momsen, 2004).

The non-economic benefits of agritourism involvement are also not well documented in the literature. While researchers have identified a number of motivating factors for agritourism involvement, additional exploration is needed (Barbieri, 2009; Ollenburg & Buckley, 2007; Nickerson et al., 2001). Maintaining the family farm and rural lifestyle is frequently referenced as an intrinsic goal driving agritourism involvement, as is the potential for education on agricultural practices and land use (Veeck et al., 2006). However, the importance of agritourism on accomplishing those goals warrants research.

Given the limited and dated scientific information on agritourism in Missouri, especially with regard to both those potential and realized benefits, this study explores

some of the benefits associated with involvement in on-farm recreation and leisure activities. Results of this study will improve the understanding of agritourism characteristics in Missouri. Furthermore, understanding the importance of agritourism on entrepreneurial goal accomplishment is imperative given the changing situation of production agriculture in the U.S. as the costs of equipment and materials increases and the public connection to agriculture decreases (Veeck et al., 2006; McGehee & Kim, 2004; Ilbery, 1991).

The results of this study may assist agencies and organizations promoting or supporting agritourism in Missouri as an avenue for farm diversification beyond production agriculture in the state's largest industry (USDA: NASS, 2007). Agritourism activities may also have a role in qualifying for government programs and increasing the sales of other farm products, such as wine, as well as in preserving local culture and heritage (Poitras & Getz, 2006; Sharpley, 2006; Sharpley & Vass, 2002). Information generated during the course of this study may also fuel future academic research through the development of a broad examination of both the available activities and the role of agritourism on accomplishing different entrepreneurial goals.

### **Definitions**

***Agripreneur:*** Expanding farm offerings to include agritourism activities indicates an entrepreneurial endeavor of the farm business based on a complex set of economic and intrinsic objectives (Barbieri, 2009; McGehee & Kim, 2004; Nickerson et al., 2001). In this study, we adopt the term agripreneur to refer to the individual managing an enterprise diversified farming operation (Barbieri, 2006).

***Agritourism:*** There is not a consistent definition of agritourism in the literature, and it has been used interchangeably with other labels. For example, some studies have previously been synonymously linked to rural tourism, farm tourism and agricultural tourism (Ilbery, 1998; Ilbery, 1991). More recent studies are consistently using the term *agritourism*, differentiating it from rural tourism. These studies define agritourism as those recreation-related enterprises incorporated into the activities of a working farm or other settings of agricultural production (Barbieri & Mahoney, 2009), while rural tourism comprises all travelling to rural areas for recreation or tourism purposes which may or may not include agriculture production settings (Barbieri & Mahoney, 2009; Fleischer & Tchetchik, 2005; Veeck et al., 2006; Ilbery, 1998).

For the purpose of this study, and given the still evolving definition of this term, we will adopt the operational definition of agritourism used in Missouri. The Agribusiness Development Division of the Missouri Department of Agriculture defines agritourism as, “visiting a working farm or any agricultural, horticultural, or agribusiness operation for the purpose of appreciation, enjoyment, education, or recreational involvement with agricultural, natural or heritage resources” (MDA, 2009).

***Farm:*** For the purposes of this study, a working farm included those agricultural operations producing items (e.g., crops, livestock, fish or timber) for commercial sale. While agribusinesses may focus in any of a number of areas, agricultural production is an important component (MDA, 2009).

***Tourism:*** tourism refers specifically to the industry built around meeting the needs of individuals traveling for leisure and recreation purposes, including activities, accommodations and services (Goeldner & Ritchie, 2009).

## **CHAPTER II**

### **LITERATURE REVIEW**

Structural changes in agriculture have drawn attention to diversification of farm activities and new opportunities to utilize farm resources (Barbieri et al., 2008; Nickerson et al., 2001). Among those diversification opportunities is the concept of agritourism, which has gained popularity in Europe and attracted attention in the United States for the many positive impacts suggested in the literature (Barbieri & Mahoney, 2009; Barbieri et al., 2008; Veeck et al., 2006). This chapter reviews the concept of agritourism and the several economic and non-economic benefits associated with this activity. The entrepreneurial goals driving agritourism development are also examined as a framework for assessing the importance of agritourism activities on goal accomplishment.

#### **Defining Agritourism**

The practice of allowing visitors to engage in recreational activities while on the farm has decades of history in Missouri, but not under the label of agritourism (Miller, 1972; Bird, 1963). Research in the United States, as well as in Europe, has explored a variety of explanations during the subsequent decades, expanding and shaping the definition of agritourism to encompass nearly any activity in which a visitor to the farm observes or participates in an agricultural process (Barbieri & Mahoney, 2009; Fleischer & Tchetchik, 2005; Veeck et al., 2006; Ilbery, 1998). While some confusion exists in the literature regarding terminology, especially between agritourism and rural tourism (Ilbery, 1998; Ilbery, 1991), agritourism is understood to take place on a working farm,

generate income for or add value to the farm, and involve visitor participation in or observation of farm activities (Barbieri & Mahoney, 2009).

A farm diversified into agritourism is somewhat more complex than those operations focused solely on agricultural production or tourism. This complexity is created by the many different activities and functions that are incorporated into agritourism, including both agricultural production and managing daily visits and special events, as well as marketing and customer service (McGehee, 2007; Fleischer & Tchetchik, 2005). Further, diversification into lodging and other forms of accommodation for visitors has also been recognized among some researchers as both an aspect and unique form of agritourism (McGehee, 2007; Ilbery, 1991). Researchers have further honed the understanding of agritourism to include activities not typically associated with production agriculture, such as hunting, fishing, wildlife observation and other outdoor activities (Barbieri et al., 2008; Wilson et al., 2006; Ilbery, 1991). Agricultural activities developed outside the farm such as farmers markets and forests are excluded by the definition adopted in this study, but are included in the work of some researchers (Martin, 2008; Saxena et al., 2007; Fleischer & Tchetchik, 2005).

While many activities associated with agritourism are recognized in the literature, researchers have struggled to develop a classification system within the definition. A study of agritourism in Virginia identified the six most common activities, which included self-harvest crops, Christmas trees, hayrides, programs for children, petting zoos or farm animal displays and festivals (McGehee & Kim, 2004). Expanding upon the list of most popular activities, Veeck et al. (2006) described a 10-category classification of agritourism activities and seasonal offerings: 1) Berries, 2) Orchards, 3) Farm market, 4)

Fall harvest, 5) Christmas, 6) Animal products and attractions, 7) Farm experience, 8) Honey/maple or other food products, 9) Nursery, and 10) Vineyard. Veeck et al. (2006) classified agritourism operations using the single most financially lucrative activity or service. However, utilizing such classifications to organize agritourism involvement may further definitional challenges to operations identifying with multiple categories or blending categories to best fit farm resources (McGehee, 2007; Veeck et al., 2006).

### **Agripreneur Goals**

Goals are internal representations of desired outcomes, events or processes (Austin & Vancouver, 1996) that govern individual and entrepreneurial behavior (Hornsby & Kuratko, 2002). It is well-documented that a complex arrangement of many goals motivates diversification into and continued involvement in agritourism activities (Barbieri & Mahoney, 2009; Ollenburg & Buckley, 2007; Fleischer & Tchetchik, 2005), and that those motivating factors are challenging to measure under the broad definition of agritourism (Ollenburg & Buckley, 2007).

Not surprisingly, the goals most frequently associated with agritourism development are an area of continued discussion in the literature. For example, economic and intrinsic goals associated with agritourism development are linked to the agricultural context of a given region and may vary greatly among producers in a given geographic area (Nickerson et al., 2001). While goals for a diversified farm are unique to the individuals and their positions in the household and business life cycle (Ollenburg & Buckley, 2007), a level of consensus among researchers has been reached that includes both the financial and intrinsic motivations in the ongoing discussion of agritourism

(Barbieri & Mahoney, 2009; Ollenburg & Buckley, 2007; Veeck et al., 2006; McGehee & Kim, 2004; Nickerson et al., 2001).

Research has identified different goals associated with agritourism development, including: 1) fluctuations in agricultural income, 2) family employment, 3) additional income, 4) qualifying for government programs, 5) meeting needs in the tourism market, 6) tax incentives, 7) developing an interest or hobby, 8) better utilize farm resources, 9) observed agritourism successes of others, and 10) to educate the public (McGehee & Kim, 2004; Nickerson et al., 2001). Generating additional income and succession planning have been indicated as important economic considerations, while maintaining or improving the quality of life for the farm family has been documented as one of the most common non-economic goals associated with entrepreneurial development in the form of agritourism (Barbieri & Mahoney, 2009; Ollenburg & Buckley, 2007; Nickerson et al., 2001). The socialization aspect of agritourism involvement, from hosting visitors for recreational day use and farm activities to educational programs and lodging and accommodations, are also a benefit sought by some providers (Ollenburg & Buckley, 2007; Nickerson et al., 2001).

Examining farms with enterprise diversified operations in North America, Barbieri (2009) reduced twenty goals commonly suggested to drive entrepreneurial behavior, including agritourism, into four goal dimensions: Farm Profitability, Market Driven, Family Connections and Personal Pursuits. Within each of the categories, economic and non-economic objectives are considered as applied to both the farm and, in most cases, the farm household (Barbieri & Mahoney, 2009; Barbieri et al., 2008). The “farm profits” dimension includes goals related to stabilizing farm revenues, reducing

farm debts and generating income year-round. The “market driven” category includes goals related to market needs and opportunities for the farm business and the ability of the farm family to interact with customers. The “family connection” dimension is focused on providing for the farm family, keeping the farm within the family, and to continue farming. The fourth category, “personal pursuits” refers to the individual hobbies and interests of the farm operator (Barbieri, 2009).

Although important academic advances have been achieved regarding the goals driving farm enterprise diversification, and especially goals driving agritourism development, the assessment of accomplishment of these goals are still not yet understood. Given that a complex set of intrinsic and economic goals drive agritourism development, and given that agripreneurs may have different sets of goals, it is important to assess the importance of agritourism in accomplishing these goals.

### **The Benefits of Agritourism**

Agritourism promises many benefits for the farm and farm operators and even surrounding local communities. Benefits associated with the adoption of agritourism have been linked to both economic and non-economic (i.e., intrinsic) aspects of the human dimension in the literature, and are readily tied to the accomplishment of the farm operator’s entrepreneurial goals in the sense that the attainment of a goal is considered a benefit (Barbieri & Mahoney, 2009; Ollenburg & Buckley, 2007; Nickerson et al., 2001). From the economic perspective, farm diversification is believed to create a more stable, and often higher, income for the producer (Brandth & Haugen, 2007). In times of economic distress, such as a poor harvest or depressed prices, receiving visitors for

agritourism activities may provide an avenue for generating alternative or supplemental income for the farm family (Juixia & Jigang, 2007; Fisher, 2006; Nickerson et al., 2001) which is especially important as the agricultural context changes and costs associated with production increase (Salamon, 2003; Ilbery, 1991).

The positive influence of agritourism on the farm family income may also be compounded with the contribution the business makes to the local community, both via sales taxes and local employment (Veeck et al., 2006). Tourism has been suggested to stimulate the local economy and infrastructure as income from outside the local area is introduced to the micro system of local individuals, the community or hosting region (Saxena et al., 2007; Sharpley, 2007). The emphasis on agritourism as an economic engine for development in rural areas includes benefits resulting from that development. This includes, for example, employment opportunities with local businesses, especially shops and restaurants, which exist in response to market demand created by visitors (Juixia & Jigang, 2007; Saxena et al., 2007).

Intrinsic, or non-economic, benefits of agritourism have also been documented for both the participating farms and their local communities in terms of accomplishing individual goals and increasing opportunities within the local area. Other benefits have been identified for the farm family, as well, including maintaining rural lifestyles (Che, 2007; Ollenburg & Buckley, 2007) and encouraging youth to remain in rural areas by creating local employment opportunities (Barbieri, 2009). Local communities may also benefit from increased awareness and preservation of local customs, especially as related to food production and preparation aspects of tourism in agricultural settings (Everett & Aitchison, 2008).

## **The Economic Impacts of Agritourism for the Farm Household**

Agritourism is suggested as a solution to the economic stress facing many agricultural producers in an era of rapidly increasing land values and food production restrictions (Salamon, 2003; Busby & Rendle, 1999). As the agricultural context changes, producers may adapt to the challenge with new strategies, including developing non-agriculture enterprises on the farm (i.e., farm enterprise diversification) or away from full-time agricultural production (McGehee, 2007; Ilbery, 1991). For operators not farming full-time, tourism may serve as a substitute for off-farm employment to meet the economic needs of the farm business and household until the agricultural production situation improves (Ollenburg & Buckley, 2007).

Agritourism appears as a strategy that can bring additional incomes without excessive investments in farm infrastructure, labor or equipment. Farms that diversify into tourism are likely to focus on those activities that utilize their existing resources, rather than requiring additional investment as many producers view the diversification as a method to boost revenues or to cope with the rising cost of agricultural technologies and inputs (Fisher, 2006; Nickerson et al., 2001; Ilbery, 1991). For example, there exists a tendency among operators to offer activities similar to existing farm procedures, suggesting that agritourism activities may not dramatically alter farm production, especially among those with lower levels of investments in terms of land, equipment and labor resources (Ollenburg & Buckley, 2007). Closely related activities have the potential to increase farm revenues by taking advantage of the flexibility of individual schedules and experiences on small farms still highly involved in production agriculture (Fisher, 2006; Veeck et al., 2006; Fleischer & Tchetchik, 2005).

Several studies have measured the economic value of agritourism using farm revenues as an indicator of success (Veeck et al., 2006; Nickerson et al., 2001). Stable or increasing farm net income and a somewhat reduced dependence on revenue from production agriculture have also been associated with the economic impact of agritourism development (Veeck et al., 2006; Nickerson et al., 2001). Not surprisingly, many farm operators expect to generate additional revenues for the farm business after developing agritourism activities (Barbieri, 2009).

The majority of agritourism operations serve as supplemental sources of income while agricultural production remains the primary focus (Veeck et al., 2006; Nickerson et al., 2001). There is a documented perspective among producers to view agritourism activities as a substitute for income from crop sales during a poor harvest, or to show an interest in tourism during non-production seasons, only to abandon the practices when weather conditions were favorable to crop production (Fisher, 2006). It has also been suggested that diversifying from production agriculture to agritourism and other farm enterprises may serve as a lower-risk coping mechanism for farms that are no longer economically viable when faced with rising costs for agricultural inputs and new technology (Barbieri & Mahoney, 2009; McGehee, 2007; Fisher, 2006).

However, the benefits of revenue from agritourism activities as an alternative to revenue from other sources may be specific to individual farms and not all benefits are universal (Veeck et al., 2006). Family farms are likely to look toward agritourism to provide employment for family members and as a plan for farm succession compared to non-corporate farms (Ollenburg & Buckley, 2007; Veeck et al., 2006; Fleischer & Tchetchik, 2005). In addition, farms with greater acreage are also likely to seek tax

benefits and other financial management opportunities as an indirect economic benefit of agritourism development (Nickerson et al., 2001).

Although many seek the economic benefits of agritourism activities, it seems that the actual increase of revenues is not universal, rather specific to characteristics of the individual farms or the business development (Veeck et al., 2006). For example, the time during which an agritourism operation is most vulnerable because of economic considerations occurs during the early period of the development process, typically the first five years of operation (Busby & Rendle, 1999). With that vulnerability in mind, in the early stages of agritourism, providers are best able to facilitate activities directly related to their existing agricultural activity as they may draw from existing expertise and facilities, rather than facing high input costs typically associated with agricultural ventures (Fisher, 2006; Nickerson et al., 2001; Busby & Rendle, 1999). In addition, there is a regional effect influencing the generation of revenues derived from agritourism as the most economically successful agritourism operations generate revenues by offering multiple activities and are often located near other attractions (Saxena et al., 2007; Veeck et al., 2006; Fleischer & Tchetchik, 2005). The economic benefits of agritourism can also be perceived in different ways by farms with different characteristics. For example, farms with greater acreage can perceive agritourism as a convenient economic tool as these activities can alleviate the tax burden and other management costs (Nickerson et al., 2001).

## **The Intrinsic Impacts of Agritourism for the Farm Operator**

Beyond the economic impacts of agritourism, intrinsic ramifications have been identified as motivating factors for agritourism involvement among farm operators. Much of the research on North American agritourism has been based in the economic impacts, with social opportunities for farm operators viewed on a secondary level (Sharpley & Vass, 2006; Veeck et al., 2006; Nickerson et al., 2001). However, in some cases, researchers have identified the economic outcomes associated with agritourism involvement as gateways to achieving in more intrinsic areas (Nickerson et al., 2001).

Research has identified an opportunity for agritourism activities in promoting the survival of the farm business, allowing the farm operator and their family to continue farming and enjoying their rural lifestyle (Ollenburg & Buckley, 2007; Sharpley & Vass, 2006; Ilbery et al., 1998). More than the economics of the farming profession, being able to continue farming is associated with the intrinsic value of “being a farmer” in terms of self-identity as well as enjoying the practice of farming (Gasson, 1973). Similarly, operators of diversified farms reported identifying themselves by their profession as agriculturalists and feeling great personal attachment to that role (Sharpley & Vass, 2006). Furthermore, increased preservation of unique cultural traits of an area, from family traditions and local customs to a stronger regional awareness, has also been attributed to the addition of tourism activities in rural areas (Turnock, 2002). However, there is a lack of research on the role of agritourism in accomplishing the broad scope of intrinsic goals associated the development of this entrepreneurial activity.

## **CHAPTER III**

### **RESEARCH METHODS**

Chapter III discusses the methods and procedures used in this study, detailing the research design, participant selection, questionnaire content, data collection and preparation, and statistical analysis.

#### **Research Design**

This study was designed to collect quantitative data on a number of farm household and business characteristics, as well as on the importance of agritourism in goal accomplishment among Missouri providers. Data was collected using printed and electronic questionnaires in parallel forms. This survey research is descriptive-relational in nature, and therefore non-experimental.

#### **Study Population and Sample**

Participation in the study was limited to individuals 18 years of age or older owning and/or operating farms with diversified enterprises in Missouri. The study sample was drawn from three sources: (1) the Missouri Department of Agriculture provided a list of farms affiliated with its agritourism and marketing programs, (2) an internet search for on-farm recreational activities available to visitors conducted by researchers using key words, and (3) a snowball sampling used to capture unaffiliated farms, as well as those without an internet presence, by asking participants to distribute survey materials to friends and colleagues as has been done in previous North American

studies (Barbieri & Mahoney, 2009; Barbieri et al., 2008; Barbieri, 2006). While many farms are registered with MDA, a comprehensive list of all farms was not available. The final study sample included 592 farms.

### **Survey Instrument**

A questionnaire addressing the study objectives was developed via adaptation of instruments from previous studies in the areas of agritourism and farm enterprise diversification (Barbieri & Mahoney, 2009; Barbieri et al., 2008; Barbieri & Mshenga, 2008). Researchers estimated that the questionnaire would require approximately 15 minutes for respondents to complete all questions. The questionnaire was distributed among faculty at the University of Missouri and personnel at MDA for a review of the readability and clarity of instructions. Face validity was established through a review conducted by representatives of the Missouri Department of Agriculture Agribusiness Development Division who are heavily involved in the development of agritourism in Missouri. The survey instrument was reviewed and approved as "Exempt" by the Campus Institutional Review Board on June 27, 2008 (see appendix A).

The questionnaire included 56 questions and collected information in the following areas: (1) profile of responding farmers and their farms; (2) economic profile of responding farms; (3) attributes of Missouri Agritourism offerings; (4) agritourism impacts, including those items related to goal accomplishment; and (5) market indicators for Missouri Agritourism farms, including their level of involvement with employees, networking organizations and methods of promoting farm products. Appendix B includes the survey questionnaire.

Sections I and II collected information on the physical and economic characteristics of the farm, including ownership situation, acreage used in production, total farm acreage and geographic location (i.e., distance from an urban area, distance from paved highway). Farm economics were assessed by asking respondents to indicate the economic situation of their farm (e.g., a profitable business, operating at a loss), and to select the monetary range that best represented their 2008 gross farm sales (e.g., less than \$1000, \$500,000 or more), as well as their types of farm products, services and practices, and the percentage of farm sales generated in those areas.

Sections III and IV gathered agritourism related information. Section III included a filter question to verify that respondents received visitors to the farm for recreation or tourism purposes. Those farms not involved in agritourism were advanced to Section V. Then, section III collected information on the number of years the farm had been receiving visitors and the number of days visitors were received in 2008, as well as the specific months and days of the week on which visitors were received. Respondents were asked to estimate the number of visitors to their farm for both 2008 and 2009, and to describe their farm visitors (e.g., families, school groups, couples, seniors). Section IV inquired about the activities offered on agritourism farms, using a multiple choice list of 20 activities. Questions covered any fees charged for activities or admission to the farm property and on other services (e.g., food, hospitality, event hosting) available on the farm.

Sections V and VI focused on the marketing and management aspects of operating an agritourism farm, including facilities available for visitors and methods used to market farm activities, indicating both the satisfaction with their experience and the

depth of their involvement in agritourism. This section also inquired about the importance of agritourism for accomplishing sixteen entrepreneurial goals using a five-point Likert type scale anchored in (1) Not Important and (5) Extremely Important. In Section VI, respondents were asked to indicate the number of farm employees and to specify how many of those employees work primarily in agritourism activities, as well as the number of paid and unpaid family farm employees. This section also gathered information on memberships in agricultural, business and marketing associations.

Sections VII used a combination of questions to collect information on family life cycle, including age, employment status (e.g., retirement) and children in the home. Respondents were asked to indicate the percentages of time spent in several areas (farming or ranching, tourism-related activities, other farm activities, off-farm job, and other) for themselves as well as their spouse or partner. Farm operators were also asked to indicate their level of formal education and household income.

As this instrument was adapted from previous surveys in agritourism and farm diversification (Barbieri & Mahoney, 2009; Barbieri et al., 2008; Barbieri & Mshenga, 2008) pilot testing for reliability was not conducted. However, internal consistency reliability tests were conducted utilizing a split-halves correlation approach on key variables (Huck 2008). Results showed no significant differences between both groups regarding the number of acres farmed, number of total full-time year round farm employees, economic situation of the farm, number of years receiving visitors, operator's age and household gross income.

## **Survey Administration**

Data was collected using in parallel electronic and printed surveys with similar instructions, word choice and formatting. The printed format comprised a four-page booklet. The electronic format was hosted by VOVICI, a North American company providing online survey software. Use of parallel formats allowed researchers to take advantage of the cost saving and efficiency benefits of a web-based questionnaire while continuing to provide paper copies for subjects with a preference for the hard copy, as well as those lacking access to or familiarity with internet technology.

Incorporating an electronic version of the questionnaire allowed researchers to capitalize on the cost and time-saving benefits of online surveys as compared to printed documents sent via U.S. Postal Service mail. The electronic format allows for cost savings in the areas of printing and postage, as well as for reduced personnel costs associated with data entry, as responses are easily transferred into the Statistical Packages for the Social Sciences (SPSS) for analysis (Dolnicar, Laesser & Matus, 2009). The increased ease to transfer responses into other software programs also offers the benefits of time savings for researchers, thus allowing a shorter time investment in preparing data for analysis. Furthermore, the electronic format allows researchers to utilize conditional logic programming as respondents moved through the questionnaire on-line, customizing or eliminating questions based on answers in previous sections (Dillman et al., 2009).

Prospective study participants were invited to participate in this study via both e-mail and U.S. Postal Service (USPS) mail, upon availability of appropriate contact information. In situations where both electronic and USPS addresses were available, first contact was made electronically. Invitation letters/emails described the purpose of the

study, confidentiality and privacy procedures and instructions and participation incentives. Electronic invitations included a personalized link to the survey while mailed invitations included a copy of the survey. As an incentive to participate in the study, MDA offered all respondents the chance to win one annual membership to the *AgriMissouri* program, or one of two *AgriMissouri* gift boxes containing a number of food items produced in Missouri.

Electronic invitations were sent on November 4, 2008 to 457 farmers. Six days later, a mailed invitation was sent to 571 farmers, including both those farmers that had not responded to the electronic invitation and farmers without an electronic address. A series of two postcard and four electronic reminders, as well as a second mailing of invitations was used to encourage participation following a modified version of the protocol developed by Dillman et al. (2009). Timing of electronic reminders was chosen based on the pace of respondents and to combine different weekdays. A final electronic message was sent February 5, 2009 to all subjects with valid addresses. The message thanked respondents for the time and efforts required to complete the questionnaire, and provided a final opportunity for non-respondents to access the questionnaire. Email addresses associated with undeliverable messages were removed from subsequent mailings. In addition, after completing the questionnaire or requesting to be removed from the list, subjects were no longer contacted. The survey was closed on March 2, 2009, after being open for about four months. Table 1 summarizes the type and time of communications to study participants.

Table 1. Date and number of communications sent

Types of Communication	Date Sent	Number Sent		
		All	Valid <sup>1</sup>	Invalid <sup>2</sup>
<b>Electronic Communications</b>				
Invitation E-mail	4-Nov-08	457	335	122
E-mail 1 (Reminder)	10-Nov-08	360	349	11
E-mail 2 (Reminder)	2-Dec-08	338	330	8
E-mail 3 (Reminder)	15-Dec-08	316	304	12
E-mail 4 (Reminder)	14-Jan-09	269	261	8
E-mail 5 (Thank You)	5-Feb-09	265		
<b>Printed Communications</b>				
Invitation Letter 1	18-Nov-08	571	-- <sup>3</sup>	-- <sup>3</sup>
Postcard 1 (Reminder)	8-Dec-08	515	475	40
Postcard 2 (Reminder)	29-Dec-08	407	402	5
Invitation Letter 2	9-Jan-09	382	-- <sup>3</sup>	-- <sup>3</sup>

<sup>1</sup>This excludes those with incorrect U.S. Postal Service or e-mail addresses.

<sup>2</sup>This represents those subjects who were undeliverable for each attempted communication.

<sup>3</sup>The number of invalid addresses is unknown because bulk-rate mailing does not provide address service information.

### **Response Rate and Data Preparation**

The survey produced 243 valid responses, representing a response rate of about half (43.6%), which is higher than in similar studies with farmers engaged in agritourism activities (Barbieri & Mahoney, 2009; Ollenburg & Buckley, 2007; Nickerson et al., 2001). Response rate was calculated by comparing the numbers of completed responses and eligible respondents in the form of a proportion (Vaske, 2008). Completed questionnaires included 20 respondents from a snowball sample. The composition of completed questionnaires between the printed (n = 116) and electronic (n = 107) formats was nearly evenly divided, and very few subjects (n = 19) refused to participate in the study. Table 2 summarizes the sample size, number of completed questionnaires received, and excluded respondents.

Table 2. Study sample size and response rate

Sample Frame	Total
<b>Sample</b>	
Sample size	592
Invalid mailing address	28
Out of business reply	7
Valid subjects	557
<b>Number of Responses</b>	
Total respondents <sup>1</sup>	243
Response rate <sup>2</sup>	43.6%

<sup>1</sup> This includes printed and electronic responses, as well as 20 completed questionnaires from the snowball effect.

<sup>2</sup> Response rate calculated as follows: Valid Responses/Valid Subjects (i.e., 243/557) following Vaske (2008).

Data collected electronically was stored online by the host company, VOVICI, in a format (.csv) compatible with Microsoft Excel software. Data from mailed questionnaires were input using the on-line survey system. After data collection was complete, the data was exported to an SPSS database. Responses were examined to determine suitability for further analysis based upon study criteria: 1) respondents were actual farms; 2) they were currently in business; 3) they were located in Missouri; and 4) they were receiving visitors for recreation and tourism. This scrutiny resulted in the removal of 96 respondents; hence analysis for this study includes responses representing 164 agritourism farms.

Statistical analysis was conducted to identify possible response bias introduced by the two different methods used to collect data, although none were expected as stated by Dillman et al. (2009). Farm land size, type of farm operation, total gross sales and number of generations in farming were compared between mail and online respondents. No significant differences were found between groups in all variables tested ( $p > 0.001$ ).

## **Statistical Analysis**

For this study, analysis was conducted using the Statistical Packages for the Social Sciences (SPSS) version 17.0, utilizing both descriptive and inferential statistics. Descriptive statistics were used to profile respondents based on their farm household and business attributes, followed by the use of inferential statistics on specific variables.

According to the first study objective, descriptive analysis was conducted to examine the importance of agritourism on agripreneur accomplishment of economic (e.g., controlling fluctuations in farm revenues) and non-economic (e.g., educating the public about agriculture) goals. Those goals represent four dimensions associated with agritourism development: (1) Firm profitability, (2) Market Driven, (3) Family Connections; and (4) Personal Pursuits (Barbieri, 2009). The importance of accomplishing those goals was measured using a five-point Likert-type scale, anchored in (1) Not Important and (5) Extremely Important. A composite mean was calculated to identify the overall importance of agritourism in accomplishing goals within each dimension. Table 3 displays the study objectives in relation to the statistical analysis conducted.

According to the second study objective regression analysis were used to determine the degree of relationships between the characteristics of the farm household and business (independent variables) and the importance of agritourism on accomplishing each of the four goal dimensions (dependent variables). In support of the exploratory nature of this study, a simultaneous multiple linear regression model was utilized. After handling issues of multicollinearity, the independent variables representing different farm and household business characteristics were simultaneously entered for comparison

(Huck, 2008). Dependent variables included: (1) Firm profitability – D1, (2) Market Driven – D2, (3) Family Connections – D3; and (4) Personal Pursuits – D4. Six independent variables were included to describe the farm household and business. Farm household descriptors were: 1) operator’s age; 2) household gross income; and 3) the percent of operator’s time in off-farm employment. Farm business descriptors were: 4) number of full-time year-round employees; 5) number of years offering agritourism; and 6) number of marketing methods used. Multicollinearity tests revealed no correlations among the independent variables.

Table 3. Study objectives and statistical analysis

<b>Objective</b>	<b>Analysis</b>	<b>Variables</b>
To examine the importance of accomplishing 16 economic and intrinsic entrepreneurial goals representing four goal dimensions associated with agritourism: Firm profitability; market driven; family connections; and personal pursuits.	Descriptive	Importance of agritourism in accomplishing 16 entrepreneurial goals representing four dimensions: <ul style="list-style-type: none"> <li>• Firm Profitability (D1)</li> <li>• Market Driven (D2)</li> <li>• Family Connections (D3)</li> <li>• Personal Pursuits (D4)</li> </ul>
To identify the farm household and business attributes related to the importance of agritourism in accomplishing the four entrepreneurial goal dimensions	Multiple Linear Regression	Independent Variables: <ul style="list-style-type: none"> <li>• Operator age</li> <li>• Household income</li> <li>• Operator off-farm employment</li> <li>• Full-time year-round employees</li> <li>• Years offering agritourism</li> <li>• Marketing methods used</li> </ul> Dependent Variables: Importance of agritourism in the accomplishment of four goal dimensions: D1; D2; D3 and D4.

## **CHAPTER IV**

### **RESULTS**

Chapter IV describes the results of the Missouri Agritourism Survey in terms of respondents offering agritourism activities on their farms. This chapter includes a profile of both Missouri agritourism farms and their operators. This chapter also addresses the study objectives to assess the importance of agritourism in accomplishing sixteen goals related to entrepreneurial development and to identify the household and business attributes associated with those importance levels.

#### **Profile of Responding Farmers and their Farms**

Respondents indicated an average farm size of 333.10 acres (Table 4), which is larger than the average Missouri farm (269 acres) according to a recent agriculture census (USDA:NASS, 2007). Nearly one-third (30.1%) of respondents farm less than ten acres while less than a tenth (9.8%) farm 500 acres or more. The majority (67.3%) of farms are located more than thirty miles from an urban area<sup>1</sup>. Nearly three-fourths (72.2%) are located over or within one mile of a paved road or highway.

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<sup>1</sup>An urban area is defined as a designated area with a population equal to or greater than 50,000 people (USDA: NASS, 2007)

Table 4. Size and location of responding farms

<b>Farm Attributes</b>	<b>%</b>
<b>Total Acreage</b>	<b>(n = 160)</b>
Less than 10 acres	11.2%
10-29 acres	19.4%
30-99 acres	26.3%
100-499 acres	30.6%
500 acres or more	12.5%
Mean (in acres)	(333.1)
Median (in acres)	(76.0)
Range (Min.-Max.)	(1-8,000)
<b>Number of Acres Farmed</b>	<b>(n = 153)</b>
Less than 10 acres	30.1%
10-29 acres	18.3%
30-99 acres	22.2%
100-499 acres	19.6%
500 acres or more	9.8%
Mean (in acres)	(295.5)
Median (in acres)	(30.0)
Range (Min.-Max.)	(0-8,000)
<b>Distance from an Urban Area<sup>1</sup></b>	<b>(n = 162)</b>
In urban area	3.7%
Less than 5 miles	3.1%
5-9 miles	6.8%
10-29 miles	19.1%
30-59 miles	30.9%
60 miles or more	36.4%
<b>Distance from a Paved Highway</b>	<b>(n = 162)</b>
Over pavement	45.7%
Less than 1 mile	26.6%
1-2 miles	19.1%
3 miles or more	8.6%

<sup>1</sup> The U.S. Census Bureau defines an urban area as one having 50,000 or more people, with a population density between 500 and 1,000 people per square mile (Economic Research Service, 2007).

Almost two-thirds (65.0%) of the responding agritourism farms are individually (32.5%) or non-corporate family (32.5%) operated, which is lower than the 87.9% reported in Missouri (Economic Research Service, 2007)<sup>2</sup> as shown in table 5.

<sup>2</sup>Ownership structure as reported in the 2007 Census of Agriculture, with 94,818 of 107,825 Missouri farm operators indicating individual or non-corporate family ownership.

Furthermore, about one-fourth (23.9%) of the agritourism operations are incorporated family farms. Farm operators are nearly evenly divided between first-generation (48.8%) and multi-generation (50.6%) farmers. The majority of responding farms indicated that the husband serves as a primary farm operator (69.6%), however, in less than one-half of cases (41.1%) is the male figurehead the sole operator. Over a one-fourth of respondents (28.5%) reported both the husband and wife as main farm operators and 7.2% have their children involved as well.

Table 5. Ownership and operator structure of responding farms

<b>Farm Attributes</b>	<b>%</b>
<b>Ownership Structure</b>	<b>(n =163)</b>
Individual ownership	32.5%
Family farm (non-corporate)	32.5%
Family farm (incorporated)	23.9%
Other organization	11.1%
<b>Generations of Family Farmers</b>	<b>(n = 156)</b>
First generation farmers	48.8%
Multi-generation farmers	50.6%
Unknown	0.6%
<b>Farm Main Operator</b>	<b>(n = 158)</b>
Husband	69.4% <sup>1</sup>
Wife	29.3%
Child(ren)	7.2%
Parent(s)	3.6%
Other	6.8%
<b>Husband and Wife as Main Farm Operators</b>	<b>(n = 158)</b>
Husband only	41.1%
Husband and wife	28.5%
Wife only	12.7%
Other operators	17.7%

<sup>1</sup> Percentages sum to more than 100%, as respondents were able to select multiple categories.

Data also show an even distribution in terms of the age of agritourism farmers with about one-half (46.6%) of respondents younger than 55 years, which is similar to the

average age (57.1 years) of Missouri farmers according to the 2007 Agriculture Census (Economic Research Services, 2007) as shown in table 6. Over one-third (34.7%) of respondents received formal education in either agriculture (17.1%) or business (17.6%), and more than one-fourth (26.1%) have formal education in both agriculture and business. Consistent with the age distribution of respondents, about one-third (32.9%) are retired from another occupation. Respondents indicated that nearly one-fourth (22.4%) have annual gross farm sales greater than \$250,000, and that nearly two-thirds (64.9%) of operators are not employed outside the farm business.

Table 6. Profile of responding farm households

<b>Farm Household Attributes</b>	<b>%</b>
<b>Farm Operator Age</b>	<b>(n = 161)</b>
34 years or less	4.9%
35 – 44 years	15.5%
45 – 54 years	26.2%
55 – 64 years	33.5%
65 years or more	19.9%
<b>Educational Background of the Operator</b>	<b>(n = 153)</b>
Agriculture	17.1%
Business	17.6%
Agriculture and business	26.1%
Other area	39.2%
<b>Retirement Status</b>	<b>(n = 155)</b>
Retired from previous job	32.9%
Not retired	67.1%
<b>Farm Gross Sales (2008)</b>	<b>(n = 152)</b>
Less than \$9,999	28.3%
\$10,000-\$49,999	23.0%
\$50,000-\$99,999	11.8%
\$100,000-\$249,999	14.5%
\$250,000 or more	22.4%
<b>Operator Off-Farm Employment Time (percentage)</b>	<b>(n = 154)</b>
None (0%)	64.9%
1 to 14%	5.1%
15 to 40%	5.7%
More than 40%	23.8%

## **Economic Profile of Responding Farms**

The vast majority (85.2%) of respondents produce agricultural products for commercial sale on their farms (Table 7). A relatively large proportion of farms offering agritourism activities are involved in traditional agriculture producing commodity crops (19.5%) or raising livestock (26.0%).

Table 7. Non-recreation enterprise lines of responding farms

<b>Farm Enterprise Lines</b>	<b>%</b>
<b>Commercial Farm Production</b>	<b>(n = 149)</b>
Farming for commercial sale	85.2%
Farming for other uses	14.8%
<b>Agricultural Products<sup>1</sup></b>	<b>(n = 154)</b>
Specialty crops	58.4%
Livestock	26.0%
Commodity crops	19.5%
Rare or non-traditional animals	13.6%
Wood products	13.6%
Poultry or small animals	10.4%
Fish or shellfish in captivity	5.2%
Other products	32.5%
<b>Value Added Products<sup>1</sup></b>	<b>(n = 101)</b>
Processed foods	52.5%
Wine	26.7%
Decorative items	12.9%
Beer or liquor	3.0%
Other products	37.6%
<b>Services Provided to Others</b>	<b>(n = 156)</b>
Do provide services to others	37.2%
Do not provide services to others	62.8%
<b>Passive Diversification</b>	<b>(n = 151)</b>
Engaged in rentals, leases or timeshares	21.9%
No rentals, leases or timeshares	78.1%

<sup>1</sup> This only includes those products grown or processed on the farm.

The majority of respondents grow specialty crops (58.4%) and 13.6% raise rare or non-traditional animals. A very large proportion (61.6%)<sup>3</sup> of respondents are involved with value-added products, ranging from processed foods (52.5%) to wine (26.7%) and decorative items (12.9%).

Less than one-third (28.3%) of agritourism farms reported having sales of less than \$10,000 (Table 8). Nearly one-fourth (22.4%) of agritourism farms had 2008 gross sales of at least \$250,000, and nearly two-thirds (61.9%) of agritourism indicated that recreational activities accounted for none of their gross sales, as well as less than 30% of sales for another nearly one-fourth (23.2%) of the responding agritourism farms. While for the majority of farms recreation does not contribute directly to farm sales (61.9%), for some operations (8.4%) it accounts for sixty percent or more of their sales. Furthermore, while many farms do not generate income directly from their recreational activities, it is still perceived as important to very important (mean=3.28) to the continued operation of the business.

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<sup>3</sup> Includes all farm operators indicating at least one value-added farm product generated on their farm (101/164=61.58%).

Table 8. 2008 Farm gross sales and recreation-related sales percentages and perceived importance for the continued operation of the farm

<b>Farm Sales and their Importance</b>	<b>%</b>	<b><i>M</i></b>
<b>Farm Gross Sales (2008)</b>	<b>(n =152)</b>	
Less than \$10,000	28.3%	
\$10,000-\$49,999	23.0%	
\$50,000-\$249,999	26.3%	
\$250,000 or more	22.4%	
Mean <sup>1</sup>		(4.0)
<b>Recreation-Related Sales Percentage</b>	<b>(n = 155)</b>	
None (0%)	61.9%	
Less than 30%	23.2%	
30% to 59%	6.5%	
60% or more	8.4%	
Sales Percentage (Mean)		(13.1)
<b>Perceived Importance Means for Agritourism<sup>3</sup></b>		
Recreational, entertainment and tourism activities		(3.3)
Hunting and fishing		(1.6)
Lodging and accommodations		(1.9)
Restaurant, catering and food services		(2.1)
Perceived Importance (Mean) <sup>2</sup>		(2.2)

<sup>1</sup> Measured in an ordinal scale where: (1) Less than \$1,000; (2) \$1,000-\$9,999; (3) \$10,000-\$49,999; (4) \$50,000-\$99,999; (5) \$100,000-\$249,999; (6) \$250,000-\$499,999; (7) \$500,000-\$999,999; (8) \$1,000,000 or more.

<sup>2</sup> Means for importance to the continued operation of the farm, as measured using a 5 point Likert Type Scale anchored in (1) = Not important and (5) = Extremely Important and includes all respondents.

### **Attributes of Missouri Agritourism Offerings**

Missouri agritourism farms offer a large variety of recreational activities, ranging from tours and wineries to wildlife observation and festivals. The activities most commonly offered by respondents are tours, including those designed to be educational (50.0%) and tours more directed toward leisure (48.8%) as table 9 displays. Over one-third of respondents offer recreational self-harvest (37.7%), such as u-pick fruits or vegetables. Over one third of Missouri agritourism farms also offer the opportunity to observe and/or participate in agricultural processes (34.6%), such as a cider mill. Other

popular activities among respondents were educational activities including classes, seminars or workshops (30.9%), festivals and other similar events (30.9%), animal related displays such as petting zoos (29.6%) and different field rides (26.5%), such as tractor or hay rides. Nearly one-third of respondents (30.2%) indicated that their farms offered other activities not included in the list, however those responses did not show any frequently recurring activities or themes.

A cumulative index to measure the diversity of Missouri agritourism offerings was developed among the twenty recreational activities included in this study (range of 1 to 20 activities). More than one-third (35.3%) of farms offer one or two activities and another one-third (34.6%) offer at least five activities for visitors. Half of the farms offer three or more recreational activities (median=3.0) and on average they offer nearly four (mean=3.7). The most diversified farms offer thirteen recreational options for visitors.

Table 9. Types and diversity of recreational activities offered by farms in Missouri

<b>Recreational Offerings</b>	<b>%</b>
<b>Types of Recreational Activities</b>	<b>(n = 162)</b>
Educational tours	50.0% <sup>1</sup>
Leisure tours (e.g., orchard walks)	48.8%
U-pick or U-harvest	37.7%
Observation/Participation of agricultural processes	34.6%
Classes, seminars or workshops	30.9%
Festivals, events and shows	30.9%
Petting zoos or farm animal displays	29.6%
Field rides (e.g., hay rides, tractor rides)	26.5%
Holiday-related activities	19.1%
Winery	17.3%
Pumpkin patch	17.3%
Corn maze or other mazes	15.4%
Wildlife observation	13.6%
Hiking or biking	12.3%
Fishing for a fee	5.6%
Paid hunting or customized hunting tours	5.6%
Cultural or historic exhibits	5.6%
Horseback riding	4.9%
Rodeos, cowboy camps or events	1.9%
Other activities	30.2%
<b>Number of Recreational Activities Offered</b>	<b>(n = 162)</b>
One or two activities	35.3%
Three or four activities	30.1%
Five or six activities	21.8%
Seven or more activities	12.8%
Mean	(3.7)
Range	(1-13)

<sup>1</sup> Percentages sum to more than 100%, as respondents were able to select multiple categories.

Nearly two-thirds (64.6%) of agritourism farms offer at least one hospitality service including lodging and accommodations, food and beverages; and hosting services (Table 10). Food services are the most common form of hospitality available (53.0%), being the most common tasting rooms (25.0%), cookouts, barbecues or picnics (23.2%), private parties (23.0%) and food stands (21.3%). Over a one-third, offer at least one type

of hosting service (36.0%). Lodging and accommodation facilities were the least frequently offered hospitality service (15.2%).

Table 10. Types of hospitality services offered by farms in Missouri

Hospitality	Within Category <sup>1,2</sup>	All Agritourism <sup>1,3</sup>
<b>Overall Hospitality Involvement<sup>4</sup></b>		<b>(n = 164)</b>
All Hospitality Categories		64.6%
Food Services		53.0%
Hosting Services		36.0%
Lodging and Accommodations		15.2%
Other Services		10.4%
<b>Food Services</b>	<b>(n = 87)</b>	<b>(n = 164)</b>
Tasting rooms	47.1%	25.0%
Cookouts, barbecues or picnics	43.7%	23.2%
Food stand	40.2%	21.3%
Catering or customized meals	31.0%	16.5%
Sit-down dining	20.7%	11.0%
Take-out foods or beverages	20.7%	11.0%
Deli store	12.6%	6.7%
<b>Hosting Services</b>	<b>(n = 59)</b>	<b>(n = 164)</b>
Weddings or private parties	94.9%	23.0%
Corporate or business retreats	57.6%	14.0%
Relaxation/therapeutic services	13.6%	3.3%
<b>Lodging and Accommodations</b>	<b>(n = 25)</b>	<b>(n = 164)</b>
Bed & Breakfast	52.0%	7.9%
Cottages or cabins	52.0%	7.9%
Farm vacations	28.0%	4.3%
RV and camp sites	20.0%	3.0%
Hotel, inn, lodge or resort	12.0%	1.8%
<b>Other Services</b>	<b>(n = 17)</b>	<b>(n = 164)</b>
Other hospitality services	100.0%	10.4%

<sup>1</sup> Percentages sum to more than 100%, as respondents were able to select multiple categories.

<sup>2</sup> Percentages include only those who indicated involvement in at least one item of the category (e.g., offerings under food services). For example, 47.1% of the 87 farmers offering food services have a tasting room.

<sup>3</sup> Percentages include all respondents receiving visitors on their farms.

<sup>4</sup> Overall hospitality involvement includes all farms offering one or more services in the categories of: Lodging and Accommodations, Food Services, Hosting Services and Other Services.

### Availability of Missouri Agritourism offerings

The availability of agritourism offerings in Missouri was very diverse in 2008 in terms of the number of days farms were open to visitors. Importantly, this study captured the reality as some appeared to be dedicated to agritourism while receiving visitors is a casual business for others. Collectively, agritourism farms in Missouri estimated that they received more than 1.2 Million visitors (1,203,406) in 2008, with a median value of 425 visitors (Table 11). Within those visitors a number of groups were identified, including senior citizens, families and organized groups. Senior citizens (73.5%) and families with children (73.5%) are the most frequent visitors, while school groups (48.1%) are among the least frequent.

Table 11. Types and numbers of agritourists visiting Missouri farms

<b>Visitors</b>	<b>Total</b>
<b>Number of Visitors for 2008 (Estimated)</b>	
<b>(n = 152)</b>	
Total number of visitors	1,203,406
Average visitors per farm (mean)	7,917
Median	425
Range (min.-max.)	(0-350,000)
<b>Types of Visitors</b>	
<b>(n = 162)</b>	
Seniors	73.5% <sup>1</sup>
Families with children 12 or younger	73.5%
Couples without children	72.2%
Families with teens or young adults	66.7%
Organizations/groups	61.1%
School groups	48.1%
Others	16.0%

<sup>1</sup>Percentages may sum to more than 100% as respondents were able to select more than one.

About half (42.3%) of responding farms received visitors on more than sixty days, while less than one-fourth (20.9%) received visitors on fewer than fifteen days. More than one-third (36.9%) of agritourism farms receive visitors year-round (Table 12). More

than two-thirds (64.6%) of respondents received visitors six or seven days per week, with nearly all receiving visitors on Fridays (83.5%) or Saturdays (92.4%). About one-fifth of respondents (19.6%) have entered into agritourism in the last two years, while 40.6% have been receiving visitors for more than ten years, showing stability within the farm business and likely increased public awareness of farm offerings.

Table 12. Days, months and years receiving visitors on Missouri agritourism farms in 2008

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

<sup>1</sup> Percentages sum to more than 100%, as respondents were able to select multiple categories.

Results show varied approaches to charging visitors on Missouri agritourism farms. More than half (58.4%) of farms charge at least one type of fee to enjoy their recreational activities while 41.6% offer these experiences for free (Table 13). A very small proportion charge fees for all activities (14.9%); and about half (43.5%) charge fees for some activities. Charging fees for individual activities (43.5%) was found to be most

common, but followed closely by charging no fees for participation (41.6%) and distantly by the use of a single fee (14.9%) for visiting the farm (e.g., gate fee, general admission).

Table 13. Percentage and description of fees charged for agritourism activities

<b>Agritourism Fees</b>	<b>%</b>
<b>Farms Charging Agritourism Fees</b>	<b>(n = 161)</b>
Charges at least one fee	58.4%
Do not charge any fees	41.6%
<b>Extent of Fees Charged<sup>1</sup></b>	<b>(n = 161)</b>
Fees charged for some activities	43.5%
Fees charged for all activities	14.9%
(Fees not charged)	(41.6%)
<b>Types of Fees Charged<sup>2</sup></b>	<b>(n = 161)</b>
Individual activity fees	38.4%
General admission fee	15.9%
Other fees	8.5%

<sup>1</sup>Percentages sum to more than 100%, as respondents were able to select multiple categories.

<sup>2</sup>Percentages sum to more than 58.4% (percentage of agritourism farms charging at least one fee), as respondents were able to select multiple categories.

### **Management and Marketing Resources of Missouri Agritourism Farms**

Farms receiving visitors reported having more than eleven employees. (mean=11.67), and few farms indicated that they hire no employees, (13.0%) as shown in table 14. The majority (61.5%) of responding farms employed at least one person for duties related primarily to agritourism. The average number of employees primarily working in agritourism (mean=6.08) is slightly higher than the mean number of employees working in non-agritourism activities (mean=5.83). The average number of full-time seasonal employees (mean=2.08) and of part-time year-round employees (mean=0.72) working primarily on non-agritourism activities is higher than those primarily working on agritourism activities (means=0.45 and 0.69, respectively).

Table 14. Number of employees of Missouri agritourism farms working in agritourism and overall farm activities by employment category.

<b>Number of Employees</b>	<b>Total Number of Farm Employees</b>	<b>Employees Primarily Working in Agritourism</b>	<b>Employees Working in Non-Agritourism Activities</b>
<b>Total Employees</b>	<b>(n = 138)</b>	<b>(n = 130)</b>	<b>(n = 98)</b>
None	13.0%	38.5%	51.0%
1 to 4	40.0%	30.0%	26.5%
5 to 10	23.1%	16.1%	8.2%
More than 10	23.9%	15.4%	14.3%
Mean	(11.67)	(6.08)	(5.83)
Range (min.-max.)	(0-200)	(0-72)	(0-176)
<b>Employees by Category (mean)</b>	<b>(n = 138)</b>	<b>(n = 130)</b>	<b>(n = 98)</b>
Full-time-Year Round	2.7	1.4	1.4
Full-Time Seasonal	2.6	0.4	2.1
Part-Time Year-Round	1.2	0.7	0.7
Part-Time Seasonal	5.2	3.5	1.9

The majority of agritourism farms employ family members, in either paid or unpaid positions (Table 15). Respondents indicated that more than ninety percent (154 / 164 = 93.9%) employ at least one family member. More than one-third (34.2%) employ three or more family members in paid positions on the farm. On average, agritourism farms employ nearly two and one-half family members (mean = 2.41) with pay. In addition, agritourism farms are utilizing the resource of unpaid family employees, with more than one-hundred (n = 112) farms employing at least one. However, the majority of those farms are using only one or two unpaid family members, rather than relying on a large number of family volunteerism to accomplish farm tasks.

Table 15. Family members employed on the farm

Family Employees	%
<b>Total number of family employees</b>	<b>(n=154)</b>
One to two	48.1%
Three to four	31.2%
Five or more	20.7%
Mean	3.3
Median	3.0
Range	(1-13)
<b>Unpaid family</b>	<b>(n=112)</b>
One to two	63.3%
Three to four	22.3%
Five or more	14.4%
Mean	2.7
Median	2.0
Range	(1-13)
<b>Paid family</b>	<b>(n=82)</b>
One to two	65.8%
Three to four	23.2%
Five or more	11.0%
Mean	2.4
Median	2.0
Range	(1-9)

Farm operators promote their agritourism offerings in a number of ways, including both traditional (e.g., ads in media) and more innovative methods (e.g., blogs). Impressively, all agritourism providers (100.0%) are using some type of marketing tool (Table 16). Half (51.6%) of respondents use at least five different marketing tools. Operators are showing involvement with modern technology for communication as more than three-fourths (87.4%) using a Web page or blog to promote their products.

Table 16. Number and types of marketing methods used by agritourism farms

Marketing Methods	%
<b>Number of Marketing Methods Used</b>	<b>(n = 160)</b>
None	0.0%
One to two	20.1%
Three to four	28.3%
Five to six	32.1%
Seven or more	19.5%
Mean	(4.6)
<b>Marketing Methods Used</b>	<b>(n = 160)</b>
Web page or blog	87.4% <sup>1</sup>
Printed materials	69.8%
Ads in media	61.6%
Personal selling	59.7%
Listings in specialized directories	49.1%
Direct mail	47.2%
Specialized group or association	35.2%
Sales promotions	30.2%
Customer loyalty clubs or subscriptions	20.1%

<sup>1</sup> Percentages may sum to more than 100%, as respondents were able to select multiple categories.

Nearly two-thirds (60.5%) of respondents do not have written business or marketing plans and only one-fourth (25.5%) have both written business and marketing plans for guidance (Table 17). Agritourism farms are also involved with agriculture, business and tourism associations: *AgriMissouri* (48.3%) and the chamber of commerce (46.3%) are the most frequently reported associations for membership.

Table 17. Availability of business and marketing plans and association membership of agritourism farms

<b>Business Development</b>	<b>%</b>
<b>Availability of Business and Marketing Plans (n = 157)</b>	
Business plan only	11.5%
Marketing plan only	2.5%
Business and marketing plans	25.5%
None	60.5%
<b>Membership to Agriculture, Business &amp; Tourism Associations (n = 149)</b>	
AgriMissouri	48.3% <sup>1</sup>
Chamber of commerce	46.3%
Agriculture or commodity group	41.6%
Farm Bureau	37.6%
Tourism organization	30.9%
Farmers market association	23.5%
Convention/visitors bureau	15.4%
Direct marketing group	9.4%
Farmers Union	4.0%
Other association	14.8%

<sup>1</sup> Percentages may sum to more than 100%, as respondents were able to select multiple categories.

### **Overall Performance of Agritourism as Perceived by Agripreneurs**

This study examined the perceived performance of agritourism through two indirect indicators: their willingness to recommend agritourism to other farmers and their plans for further development of recreational activities. Overall, farmers engaged in agritourism are positive about their agritourism experience. Two-thirds (66.4%) of respondents indicated that they would recommend that others develop agritourism on their farms, while only a very small proportion (2.0%) would not recommend this activity (Table 18). Impressively, two-thirds (66.0%) of those currently offering agritourism on their farms plan to add more activities. Nearly one-third (32.7%) plan to add more recreational activities within the next year.

Table 18. Indirect indicators of overall agritourism satisfaction

<b>Indirect Indicators of Satisfaction</b>	<b>%</b>
<b>Willingness to Recommend Agritourism Development</b>	<b>(n = 152)</b>
Would recommend agritourism to others	66.4%
Would not recommend agritourism to others	2.0%
Uncertain about recommending	31.6%
<b>Planning to Add More Agritourism Activities</b>	<b>(n = 159)</b>
Plan to add additional agritourism activities	66.0%
Do not plan to add additional agritourism activities	34.0%
<b>Timeframe for Adding Agritourism Activities</b>	<b>(n = 159)</b>
Within 3 months	5.7%
Within one year	27.0%
Within two to three years	9.4%
At some point in the future	23.9%
(No plans to add activities)	(34.0%)

This study also explored the perceived economic impact of agritourism on the farm. The majority of agritourism providers (54.5%) indicated that their farms are profitable (Table 19). Importantly, more than one-third (36.2%) reported that their profits significantly increased after adding agritourism activities on their farms and an additional 28.2% of respondents saw a slight increase in their profits. Less than one percent (0.6%) of respondents indicated that their profits decreased. Nearly one-fourth (21.1%) of farms reported a profit increase of 100% or more, and on average respondents reported a profit increase of 55.6%.

Table 19. Stated farm economic situation and changes in farm profits after offering agritourism activities

<b>Economic Impacts</b>	<b>%</b>
<b>Stated Farm Economic Situation</b>	<b>(n =158)</b>
Very profitable	22.2%
Generating some profit	32.3%
Breaking even	17.7%
Operating at a loss	27.8%
<b>Nature of Change in Profits after Agritourism Development</b>	<b>(n = 162)</b>
Significantly increased	36.2%
Slightly increased	28.2%
Did not change	35.0%
Slightly decreased	0.0%
Significantly decreased	0.6%
<b>Profit Increase after Agritourism Development (in percent)</b>	<b>(n = 90)</b>
1% to 10%	27.8%
11% to 30%	23.3%
31% to 99%	27.8%
100% or more	21.1%
Percent Increase (Mean) <sup>1</sup>	(55.6%)

<sup>1</sup> Data for profit decreases not reported due to low number of responses in the category.

### **Importance of Agritourism for Entrepreneurial Goal Accomplishment**

Results show that agritourism is important to accomplish various entrepreneurial goals. Specifically, agritourism appears to be very important to capture new customers ( $M = 4.05$ ;  $SD = 1.190$ ), to educate the public about agriculture ( $M = 3.90$ ;  $SD = 1.075$ ), to enhance family quality of life of the farm family ( $M = 3.83$ ;  $SD = 1.251$ ) and to retain current customers through providing improved or additional services ( $M = 3.68$ ;  $SD = 1.249$ ). However, agritourism is perceived as being less important for reducing the effects of catastrophic events ( $M = 2.59$ ;  $SD = 1.507$ ) and providing employment for family members ( $M = 2.80$ ;  $SD = 1.543$ ).

Table 20. Perceived importance of agritourism to accomplish various agripreneur goals

<b>Goals</b>	<b>n</b>	<b><i>M</i><sup>1</sup></b>	<b><i>SD</i></b>
Capture new customers	152	4.0	1.2
Educate the public about agriculture	150	3.9	1.1
Enhance family quality of life	148	3.8	1.2
Better serve current customers	149	3.7	1.2
Keep you active	153	3.6	1.4
Increase direct-sale of value-added products	145	3.5	1.4
Additional revenues to keep farming	149	3.4	1.5
Increase direct-sale of other products	149	3.4	1.5
Decrease revenue fluctuations	153	3.3	1.3
Enhance ability to meet financial obligations	154	3.3	1.5
Keep the farm in the family	148	3.2	1.6
Better utilize farm resources	147	3.1	1.4
Make money from a hobby/ interest	148	3.0	1.5
Off-season revenue generation	149	2.9	1.5
Provide jobs for family members	143	2.8	1.5
Reduce impact of catastrophic events	148	2.6	1.5

<sup>1</sup> Measured using a 5 point Likert Type Scale anchoring in (1) = Not important and (5) = Extremely Important.

These goals were grouped according to four dimensions: (1) Firm profitability, (2) Market Driven, (3) Family Connections; and (4) Personal Pursuits. The four dimensions were examined for reliability with respect to the Missouri operators in this study, both for the overall model and each of the four goal dimensions. Cronbach’s alpha showed strong internal reliability within the four dimensions. Reliability estimates for the dimensions all fell within the acceptable range, being greater than 0.60 (Nunnally, 1978; Leech, Barrett & Morgan, 2005): (1) Firm Profitability ( $\alpha = 0.89$ ), (2) Market Driven ( $\alpha = 0.78$ ), (3) Family Connections ( $\alpha = 0.79$ ); and (4) Personal Pursuits ( $\alpha = 0.68$ ) as shown in table 21.

To better understand the importance of agritourism on the accomplishment of different goal dimensions, a composite mean was calculated by averaging the means of the goals comprising each of the four dimensions (*M D1*, *M D2*, *M D3* and *M D4*).

Among the four dimensions, (D2) Market Driven goals were collectively perceived as being the most important ( $M = 3.70$ ,  $SD = 1.050$ ) as shown in table 21. Goals related to (D3) Family Connections ( $M = 3.26$ ,  $SD = 1.268$ ) and (D4) Personal Pursuits ( $M = 3.33$ ,  $SD = 1.135$ ) were both important, but not extremely. Goals related to (D1) Firm Profitability were least important overall, but not unimportant ( $M = 3.16$ ,  $SD = 1.237$ ).

Table 21. Perceived importance of agritourism to accomplish various agripreneur goals by goal dimensions

Goals by Categories <sup>1</sup>	n	$M^2$	$SD$
<b>(D1) Farm Profitability (<math>\alpha = 0.89</math>)</b>			
Decrease revenue fluctuations	153	3.3	1.3
Enhance ability to meet financial obligations	154	3.3	1.5
Better utilize farm resources	147	3.1	1.4
Off-season revenue generation	149	2.9	1.5
Reduce impact of catastrophic events	148	2.6	1.5
Overall D1 Mean (MD1)		3.2	1.2
<b>(D2) Market Driven (<math>\alpha = 0.78</math>)</b>			
Capture new customers	152	4.0	1.2
Educate the public about agriculture	150	3.9	1.1
Better serve current customers	149	3.7	1.2
Increase direct-sale of value-added products	145	3.5	1.4
Increase direct-sale of other products	149	3.4	1.5
Overall Mean (MD2)		3.7	1.0
<b>(D3) Family Connections(<math>\alpha = .079</math>)</b>			
Enhance family quality of life	148	3.8	1.2
Keep the farm in the family	148	3.2	1.6
Provide employment for family members	143	2.8	1.5
Overall Mean (MD3)		3.3	1.3
<b>(D4) Personal Pursuits (<math>\alpha = 0.68</math>)</b>			
Keep you active	153	3.6	1.4
Additional revenues to keep farming	149	3.4	1.5
Make money from a hobby/ interest	148	3.0	1.5
Overall Mean (MD4)		3.3	1.1

<sup>1</sup> Accomplishment categories were constructed based on the Barbieri (2009) goals factor model.

<sup>2</sup> This is measured using a 5 point Likert Type Scale anchoring in (1) = Not important and (5) = Extremely Important.

Results show that goals within (D1) Firm Profitability ( $MD1 = 3.16, SD = 1.237$ ) are important to agritourism operations. That importance is higher in terms of decreasing revenue fluctuations associated with the farm business ( $M = 3.34, SD = 1.348$ ) and enhancing their ability to meet financial obligations, such as debts ( $M = 3.30, SD = 1.518$ ). Lesser levels of importance were indicated for generating farm revenues during the off-season ( $M = 2.91, SD = 1.521$ ) and for reducing the impact of catastrophic events ( $M = 2.59, SD = 1.507$ ).

Perceived importance of agritourism was highest for goals within the (D2) Market Driven ( $M D2 = 3.70, SD = 1.050$ ) dimension, especially for capturing new customers ( $M = 4.05, SD = 1.190$ ) and educating the public about agriculture ( $M = 3.90, SD = 1.075$ ). Operators also perceived that agritourism is important to better serve their current customers ( $M = 3.68, SD = 1.249$ ). Among (D2) Market Driven goals, those related to sales were perceived as being less important but still higher than goals in other dimensions. Increasing direct sales of value-added products ( $M = 3.50, SD = 1.458$ ) and of other farm products ( $M = 3.37, SD = 1.517$ ) are important goals for agritourism activities.

In terms of the third goal dimension, (D3) Family Connections, farm operators indicated that agritourism is important for the farm family. Specifically, enhancing the quality of life for the farm family is a highly important goal for many operators ( $M = 3.83, SD = 1.251$ ). Keeping the farm in the family is also an important goal ( $M = 3.15, SD = 1.612$ ) for many operators within the (D3) Family Connections dimension. The goal to provide employment for family members ( $M = 2.80, SD = 1.543$ ) was indicated as

being of lowest importance, but not unimportant, among the three goals associated with family connections.

The fourth dimension, (D4) Personal Pursuits, was also indicated as being an important area of goals for the agritourism operation ( $M_{D4} = 3.33, SD = 1.135$ ). Among goals in the category of personal pursuits, operators indicated their highest levels of importance in goals related to keeping the farmers active ( $M = 3.60, SD = 1.384$ ) and to keeping them farming ( $M = 3.42, SD = 1.484$ ). Notably, respondents indicated lesser importance for earning an income from an existing hobby or interest ( $M = 2.98, SD = 1.503$ ) than in other areas.

### **Attributes Associated with Goal Accomplishment Importance**

Simultaneous multiple linear regressions resulted in four significant models indicating that different farm business and household attributes are associated with agripreneur's perceived importance of agritourism in accomplishing four goal dimensions derived from entrepreneurial theory.

The first significant model ( $R^2 = .160, p = .005$ ) shows that two of the independent variables, the number of years in agritourism ( $\beta = -.203, p = .039$ ) and the number of marketing methods used to promote farm offerings ( $\beta = .349, p < .001$ ) are associated with the Market Driven dimension (D1). Notably, the number of years in agritourism was negatively associated with the importance of agritourism in accomplishing goals related to market opportunities, while the number of marketing methods was positively associated with the perceived importance of those market-related goals.

Table 22. Multiple linear regressions of farm and household characteristics on the importance means for goal accomplishment

Independent variables	DV – goal accomplishment factors <sup>1</sup> (standardized $\beta$ and significance)			
	D1	D2	D3	D4
Operator age	-.007	.052	.191**	-.068
Household income	.016	.098	.133	.008
Operator off-farm employment	-.091	-.186*	-.041	-.129
Full-time year-round employees	-.038	-.212**	-.224**	-.137
Years in agritourism	-.203**	-.026	-.217**	-.070
Number of marketing methods used	.349***	.447***	.302**	.302**
<i>p</i> Value	.005	.001	.001	.035
<i>R</i>	.400	.514	.447	.348
<i>R</i> <sup>2</sup>	.160	.264	.199	.121
Adjusted <i>R</i> <sup>2</sup>	.111	.221	.153	.070

\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.001$

<sup>1</sup> (D1) Market Driven, (D2) Firm Profitability, (D3) Personal Pursuits, (D4) Family Connections.

The second significant model ( $R^2 = .264$ ,  $p < .001$ ) shows the percentage of time the operator devotes to a job off the farm ( $\beta = -.186$ ,  $p = .042$ ), the number of full-time year-round farm employees ( $\beta = -.212$ ,  $p = .024$ ), and the number of marketing methods used to promote farm offerings ( $\beta = .447$ ,  $p < 0.001$ ) were associated with (D2) Farm Profitability. Both the operator's off-farm employment and the number of full-time year-round farm employees were negatively associated with the importance of agritourism in accomplishing goals related to farm profitability. In contrast, the number of marketing methods showed a positive association.

Four independent variables were significant related to importance of agritourism in accomplishing goals associated with the Personal Pursuits dimension ( $R^2 = .199$ ,  $p = .001$ ). The age of the primary farm operator ( $\beta = .191$ ,  $p = .045$ ) and the number of marketing methods used to promote farm offerings ( $\beta = .302$ ,  $p < .001$ ) were positive associated to the importance of agritourism in accomplishing the personal pursuits goals

while the number of full-time year-round farm employees, ( $\beta = -.224, p = .023$ ) the number of years in agritourism ( $\beta = -.217, p = .025$ ) and the number of marketing methods used to promote farm offerings ( $\beta = .302, p = .001$ ) were negatively associated.

In the last significant model ( $R^2 = .121, p = .035$ ), the number of marketing methods used to promote farm offerings ( $\beta = .302, p = .002$ ) was the only independent variable significantly associated with the importance of agritourism in accomplishing the Family Connections (D4) goal dimension.

## **CHAPTER V**

### **CONCLUSIONS**

Chapter five discusses key study findings in four areas: profile of agritourism providers, characteristics of agritourism offerings, the importance of agritourism in accomplishing various entrepreneurial goals and the farm business and household attributes associated with the importance of accomplishing those goals. Chapter five also includes study implications, limitations and recommendations for future research.

#### **Discussion**

Study results show that agritourism farms in Missouri are still in the business of agricultural production, rather than maintaining their land exclusively for landscaping a tourism destination. The average farm size of respondents ( $M = 333.1$  acres) was very similar to the average acreage farmed ( $M = 295.5$  acres) and the majority of agritourism farms (85.2%) were generating products for commercial sale. However, while operators remain in the business of farming, focus is not on the commodity crops traditionally associated with production agriculture. Less than one-fourth (19.5%) produce commodity crops such as corn, soybeans and wheat on their agritourism farms, while the majority of farms (58.4%) are producing specialty crops such as fresh fruits and vegetables and herbs. However, this makes sense given the unique and experiential opportunities available in specialty crop production that may be less attractive in the context of the large-scale monoculture typical of commodity crop production.

Agritourism farms are somewhat closely aligned with traditional family farm structures. The majority of farms are owned and operated by an individual (32.5%) or a

non-corporate family (32.5%), supporting agritourism as a way to diversify the farm and potentially increase revenues (Barbieri et al., 2008). Respondents represented an even distribution between first (48.8%) and multi-generational (50.6%) farm families suggesting that previous farming experience should be viewed as neither an impediment nor an advantage to developing agritourism on the farm. Farmers engaged in agritourism reported a slightly lower average age than Missouri farmers overall, which is interesting to note in conjunction with the trend of aging farm operators within both Missouri and American agriculture (USDA: NASS, 2007). The lower average age for the agritourism farm operators in this study deserves further exploration, as it may be suggesting either the incorporation of new skills within a younger generation of farmers or the farm diversification to facilitate succession of the business among family members. The lower average age may also be suggesting the entrance of younger people into the farming business and a more entrepreneurial approach to production agriculture.

Diversification among Missouri agritourism operators who responded to the survey included value-added products, hospitality and recreation, as well as other activities. A very large proportion of respondents (61.6%) are involved in value-added products, ranging from processed foods (52.5%) to wine (26.7%) and decorative items (12.9%), which is an entrepreneurial phenomenon already reported across North America (Barbieri et al., 2008; Veeck et al., 2006). It may also suggest some beneficial synergies between agritourism and other farm enterprises that are not yet clearly understood (Barbieri, 2009).

Missouri agritourism operators offer a large variety of recreational activities on their farms, 3.7 on average; and they received more than 1.2 Million visitors in 2008

(1,203,406 visitors). The prevalence of families with young children among farm visitors (73.5%) suggests an important relationship with farm offerings, specifically those friendly to the youngest visitors, such as petting zoos, mazes and field or hay rides which are relatively prevalent in Missouri. Community organizations (61.1%) and school groups (48.1%) are also common visitors to agritourism farms, further supporting the importance of farm offerings for educating the public (Barbieri et al., 2008; Ollenburg & Buckley, 2007).

The majority of farms (61.9%) reported that their agritourism activities do not contribute directly to farm sales, which is likely due to the large proportion of farms (41.6%) that do not charge a fee for these activities. However, these activities were widely perceived as being important ( $M = 3.28$ ) for the continued operation of the businesses. Furthermore, the majority of agripreneurs (64.4%) reported an increase in farm profits since adding agritourism to their operations. These results may suggest that the economic benefits derived from agritourism are not related directly to the activities but to other on-farm enterprises (Barbieri et al., 2008). Future studies should further investigate the economic benefits agritourism may bring to Missouri farms with a broad scope.

While activities attract visitors to the agritourism farm, marketing and promotional tactics for farm offerings also play a role, and those opportunities have been identified by and capitalized upon by many farm operators (McGehee, 2007; Fleischer & Tchetchik, 2005). Study agripreneurs were actively involved in marketing their products using a variety of printed materials (69.8%), advertisements in mass media (61.6%) and more avant-garde methods like personal selling (59.7%) and internet technology to reach

their customers. Importantly, blogs and web pages were widely used (87.4%) and may be related to the adaptable and creative entrepreneurial attributes of agripreneurs (Barbieri, 2009; Nickerson et al., 2001). The large proportion engaged in personal selling may be related to the rural and agricultural lifestyle associated with agritourism and the hands-on aspects of providing a visitor experience on a working farm or to the low-cost and personal nature of such contacts. Interestingly, the most frequently used marketing techniques vary greatly in their price points, from the generally costly approach of mass media to low-cost methods like blogging.

Results show that operators perceived that agritourism was important for accomplishing a diversity of marketing, personal and social goals. In order, capturing new customers ( $M = 4.05$ ), educating the public about agriculture ( $M = 3.90$ ) and enhancing quality of life for the farm family ( $M = 3.83$ ) were perceived as the most important goals agritourism served. The emphasis on attracting new customers was not unexpected in conjunction with Missouri agripreneurs' interest in growing farm sales and visitor numbers, as well as their proactive attitudes toward marketing and advertising. It also reinforces the notion that agritourism is a successful strategy for bringing visitors to the farm that will buy other farm products as previously suggested. Educating the public about agriculture ( $M = 3.90$ ) and enhancing the quality of life for the farm family ( $M = 3.83$ ) speaks to the importance of promoting and preserving the rural and agricultural lifestyle for those living on the farm and in the surrounding area (Barbieri & Mahoney, 2009).

Interestingly, this study shows that agritourism in Missouri is not as important for reducing the impacts of catastrophic events ( $M = 2.59$ ), contradicting previous findings in

which agritourism has been considered a main coping mechanism for poor harvests or other situations leading to financial hardship for the farm business (Ollenburg & Buckley, 2007; Fisher, 2006). Results also show that agritourism is not as important for providing employment for family members, ( $M = 2.80$ ) confirming another study conducted in Texas (Barbieri & Mahoney, 2009). The lower importance rating for agritourism in terms of family employment is disappointing when considering the desires of farmers to maintain their rural and agricultural lifestyle for themselves and their families as has been suggested (Veeck et al., 2006).

Organizing the sixteen goals for agripreneurs into four dimensions (i.e., Market Driven, Firm Profitability, Personal Pursuits and Family Connections) results showed that agritourism is perceived as most important for accomplishing (D1) Market Driven goals ( $MD2 = 3.70$ ) suggesting that the economic role that agritourism may have in farms should not be limited to direct revenues from visitors, but should also include marketing benefits in terms of increased awareness and market share of farm products and services, and branding benefits, among others. Results in the goal dimension associated with income and farm sales, (D1) Farm Profitability, were somewhat surprising. Agripreneurs reported that their agritourism activities were collectively least important ( $MD1 = 3.16$ ) for accomplishing goals associated with increasing revenues, paying debts and minimizing financial risks for the farm business. While still important to farm operators, financial goals appear somewhat disconnected from the economic gains attributed to developing agritourism activities identified in previous studies (Ollenburg & Buckley, 2007; Veeck et al., 2006; Fleischer & Tchetchik, 2005). This may be due to the importance of agritourism mainly as marketing tool in Missouri, rather than as a direct

revenue stream, especially considering that a large proportion of respondents did not charge for their recreational offerings.

Results showed that several farm business and household characteristics are related to the perceived importance of agritourism for accomplishment in the agripreneurial goal dimensions. However, these farm business and household characteristics were not found to be consistently associated across the four dimensions. Annual household income was the only attribute that was not associated with any of the four goal dimensions which was especially surprising in terms of (D2) Firm Profitability as accomplishing the individual goals related to increased sales and revenues were rated as being important contributions of agritourism involvement. Furthermore, goals related to providing for the farm family and sustaining the farm business were also rated with high importance, but were not similarly reflected in terms of annual household incomes among respondents.

In contrast, the number of marketing methods used to promote farm offerings was significantly associated with all four dimensions, suggesting that the perceived role of marketing goes beyond increasing revenues (sales) and advertising farm products, but to facilitating the accomplishment of personal and family related pursuits. Increased marketing activity and use of other techniques for raising public awareness of farm offerings should attract more visitors to the farm. Hence, it is expected that greater numbers of farm visitors are also likely to increase farm sales and income, as well as profitability. Greater advertising efforts could also grow the farm business to maintain the operation for future generations, or in response to lifestyle considerations of those living on the working farm (Veeck et al., 2006).

The negative relationship between the number of years offering agritourism experiences and the importance of those activities for meeting goals related to market opportunities and accomplishing personal pursuits are very important for promoting agritourism. Promotion efforts can emphasize the role of agritourism as a strategy to capture new markets as that outcome seems more evident during early stages of the entrepreneurial development. That is notable as efforts for filling a market niche with agritourism activities wanes as the operation becomes entrenched in a given aspect of the industry. Similarly, promotion efforts targeted to certain audiences (e.g., hobby farmers, those adopting an agrarian lifestyle) should emphasize the adoption of agritourism as a strategy for accomplishing various personal pursuits rather than goals in a single area (e.g., increasing profitability).

The negative association between the proportion of time the operator devoted to off-farm employment and (D2) Firm Profitability are expected considering the level of financial dependence the farm operator places on revenues from agritourism activities. Operators working outside the farm are likely less dependent on the farm business for their livelihood, hence they have a lower perception of the importance of agritourism on the farm profitability. Similarly, it was not surprising to find that the older the agripreneur, the higher their perceived importance of agritourism on accomplishing their personal goals when considering the family life cycle. Operators at or above the average age range (55 years or older) are likely parenting adult children and have somewhat lower time and economic barriers to pursuing their personal interests than individuals in earlier stages of the family life cycle.

## **Implications**

The comprehensive profile of agritourism farm operators presented in this study has the potential to become a great resource for representatives of the Missouri Department of Agriculture as they promote a hybrid of two high-profile industries – agriculture and tourism. The entrepreneurial aspect of the agritourism farm was evident in terms of operator’s goals for and perceptions of their businesses, as well as their interests in the agricultural lifestyle. Future promotional, educational and other marketing tools should reflect that entrepreneurial perspective, with special attention paid to the opportunity to grow an agribusiness via agritourism in terms of capturing greater market share and increasing public awareness. Such messages should also be framed to reflect the somewhat lower importance farm operators in Missouri perceived of agritourism for mitigating risks and coping with catastrophic events.

Results of this study further suggest opportunities for tailored promotional messages regarding the entrepreneurial opportunities associated with agritourism. Specifically, developing agritourism activities may be presented as a very good way for older individuals to achieve their personal goals related to farming and a rural lifestyle as a second career choice or retirement activity. Furthermore, messages intended for individuals thoroughly entrenched in the existing agritourism industry should be built upon alternative business strategies, as longevity in the industry was negatively associated with the importance of accomplishing goals of the farm operator, household and business.

## **Study Limitations**

One of the primary study limitations relates to the generalizability of study results as caution should be exercised if they are to be extended to a population beyond that of this study. Generalizing inferences beyond the purposive sample is possible, based on five criteria outlined by Shadish, Cook and Campbell (2002). The farms in this study exhibit (1) surface similarity in the sense that they are all located in Missouri and engaged in agritourism activities. Those similarities allow for greater (2) discrimination for any generalizations, as those boundaries prevent (3) extrapolation to farms without similar characteristics. Furthermore, as this study is not concerned with showing causality, the remaining criteria of (4) eliminating irrelevancies and providing a (5) causal explanation are minimized.

Despite the reasoning that generalization may be acceptable in this case as described following the Shadish et al. (2002) criteria, it is suggested to generalize study results to other Missouri agritourism farms with caution as it may not be representative of a larger population. For example, the study sample is likely to contain a disproportionate number of farms that use the internet to promote their offerings, as a keyword search was one of the methods used to identify subjects. The sample frame is also likely to over-represent those that are proactive about networking with government agencies, as many subjects were obtained from Missouri Department of Agriculture program rosters. Likewise, the sample frame likely under-represents operations with lesser use of technology for marketing and advertising purposes, as well as farms with highly localized clientele or offerings because they are less likely to engage in web-based advertising or networking outside the local area. Furthermore, farms advertising only their primary

product or products, rather than all items, services and activities available on-farm are likely to be insufficiently represented in this study as a result of the keyword search.

### **Recommendations for Future Research**

While the results of this study provide insight into both the characteristics of Missouri agritourism farm operators and their perceptions of the importance of agritourism in goal accomplishment, this study also sheds light to future research. Study results suggest that future research is needed to address more comprehensively the economic impact of agritourism on the farm, especially regarding its marketing benefits. Future studies should evaluate the impact of agritourism on market share in terms of number of clients captured, farm products awareness and branding and cross sales of other farm products by recreational visitors.

The number of household and farm characteristics associated with the perceived importance of agritourism on personal pursuits suggest that closer look should be directed to understand the role of agritourism in personal aspirations as compared to economic purposes (i.e., market development and firm profitability). For example, whether there are differences in the level and extent of agritourism (e.g., number of visitors, number of activities) and the operator characteristics (e.g., age) between those agripreneurs primarily motivated by personal drivers and those who are primarily economic driven. In addition, results suggest that further examination is needed to assess agritourism farms with different number of employees.

Research into agritourism from stakeholder perspectives beyond those of the agripreneur should also be considered. While farm operator's may perceive agritourism

as an important avenue for accomplishing farm goals, and the accomplishment of those goals as a benefit to themselves, their families and their farms, those individuals are not alone in the industry. A great opportunity exists for future research exploring the agritourism industry from the visitor and stakeholder perspectives. The marketing methods used to promote farm offerings, as well as the offerings themselves, could be strengthened with the support of academic research into the motivations of farm visitors.

In addition, opportunities for future academic research exist in terms of the agritourism industry in both Missouri and North America, where understanding is somewhat limited. Definitions of agritourism vary greatly in both terminology and labels, as well as with respect to the activities offered. While most definitions agree that agritourism must occur on a farm producing items for commercial sale, research into visitor perceptions of the cultural and colloquial definition of agritourism are lacking (Barbieri & Mahoney, 2009; Fleischer & Tchetchik, 2005; Veeck et al., 2006; Ilbery, 1998; Ilbery, 1991).

Finally, it is recommended that agencies and organizations within Missouri partner to inventory farms engaged in agritourism. The primary organizations responsible for such an inventory might include the Missouri Department of Agriculture and the Missouri Division of Tourism. Developing such an inventory will assist in strengthening awareness among both the public and other providers of available opportunities, as well as facilitating two-way communication among all stakeholders.

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**APPENDIX A**

**INSTITUTIONAL REVIEW BOARD APPROVAL  
UNIVERSITY OF MISSOURI**

## Campus IRB Exempt Approval Letter: IRB # 1117938

Bryant, Erin Lea [bryantel@missouri.edu]

Sent: Friday, June 27, 2008 9:43 AM

To: Barbieri, Carla E.; cet337@mizzou.edu

Dear Investigator:

Your human subject research project entitled A Preliminary Assessment of Agritourism in Missouri was reviewed and APPROVED as "Exempt" on June 27, 2008 and will expire on June 27, 2009. Research activities approved at this level are eligible for exemption from some federal IRB requirements. Although you will not be required to submit the annual Continuing Review Report, your approval will be contingent upon your agreement to annually submit the "Annual Exempt Research Certification" form to maintain current IRB approval. You must submit the "Annual Exempt Research Certification" form by May 13, 2009 to provide enough time for review and avoid delays in the IRB process. Failure to timely submit the certification form by the deadline will result in automatic expiration of IRB approval. (See form: <http://irb.missouri.edu/eirb/>) If you wish to revise your activities, you do not need to submit an Amendment Application. You must contact the Campus IRB office for a determination of whether the proposed changes will continue to qualify for exempt status. You will be expected to provide a brief written description of the proposed revisions and how it will impact the risks to subject participants. The Campus IRB will provide a written determination of whether the proposed revisions change from exemption to expedite or full board review status. If the activities no longer qualify for exemption, as a result of the proposed revisions, an expedited or full board IRB application must be submitted to the Campus IRB. The investigator may not proceed with the proposed revisions until IRB approval is granted.

Please be aware that all human subject research activities must receive prior approval by the IRB prior to initiation, regardless of the review level status. If you have any questions regarding the IRB process, do not hesitate to contact the Campus IRB office at (573) 882-9585.

Campus Institutional Review Board

**APPENDIX B**  
**MISSOURI AGRITOURISM SURVEY**

PLEASE ENTER THE FOLLOWING INFORMATION:

<b>Your name:</b>	<b>Your position with the farm:</b>	
<b>Farm name (required):</b>	<b>E-mail address:</b>	
<b>Farm Address:</b>	<b>City:</b>	<b>Zip code:</b>
<b>Website address:</b>	<b>Operator's name:</b>	

SECTION I: INFORMATION ABOUT YOUR FARM

<b>1. Which of the following best describes your farm organization?</b>		
<input type="checkbox"/> Individual ownership	<input type="checkbox"/> Family farm (non- corporate)	<input type="checkbox"/> Incorporated family farm <input type="checkbox"/> Other
<b>2. What is the total acreage of your farm, including acres that you own or rent?</b> _____ acres		
<b>3. What is the total acreage you farmed in 2008?</b> _____ acres		
<b>4. How far is your farm from a city of at least 50,000 people?</b>		
<input type="checkbox"/> We are located in a 50,000 pop. city	<input type="checkbox"/> Less than 5 miles	<input type="checkbox"/> 5 – 9 miles
<input type="checkbox"/> 10 – 29 miles	<input type="checkbox"/> 30 – 59 miles	<input type="checkbox"/> 60 miles or more
<b>5. How far is your farm from a paved highway?</b>		
<input type="checkbox"/> We are located over a paved highway	<input type="checkbox"/> Less than 1 mile	<input type="checkbox"/> 1 – 2 miles
<input type="checkbox"/> 3 – 5 miles	<input type="checkbox"/> 6 – 9 miles	<input type="checkbox"/> 10 miles or more
<b>6. Which of the following best describes the economic situation of your farm?</b>		
<input type="checkbox"/> My farm is a profitable business	<input type="checkbox"/> My farm makes some profit	<input type="checkbox"/> My farm breaks even
<input type="checkbox"/> My farm operates at a loss (i.e., costs are greater than revenues)		
<b>7. What will be the total gross sales for your farm in 2008?</b> Include sales from <u>all</u> of your agricultural and non-agricultural on-farm enterprises.		
<input type="checkbox"/> Less than \$1,000	<input type="checkbox"/> \$1,000 - \$9,999	<input type="checkbox"/> \$10,000 - \$49,999 <input type="checkbox"/> \$50,000 - \$99,999
<input type="checkbox"/> \$100,000 - \$249,999	<input type="checkbox"/> \$250,000 - \$499,999	<input type="checkbox"/> \$500,000 - \$999,999 <input type="checkbox"/> \$1,000,000 or more

SECTION II: YOUR FARM PRODUCTS AND SERVICES

<b>8. Do you raise or produce agricultural products (e.g., crops, livestock, fish, timber) for commercial sale?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>9. Which of the following agricultural products do you grow, raise or produce on your farm?</b> Check all that apply.		
<input type="checkbox"/> Commodity crops (e.g., wheat, corn, soybeans)	<input type="checkbox"/> Specialty crops (e.g., produce, herbs)	
<input type="checkbox"/> Livestock (e.g., cattle, hogs, horses, sheep, goats)	<input type="checkbox"/> Poultry and small animals (e.g., chicken, rabbits)	
<input type="checkbox"/> Rare or non-traditional animals (e.g., deer, bison, alpacas)	<input type="checkbox"/> Fish or shellfish in captivity	
<input type="checkbox"/> Wood products (e.g., Christmas trees, logs)	<input type="checkbox"/> Other agricultural products (e.g., eggs, honey, milk, furs)	
<b>10. Besides agritourism, does your farm provide any agricultural or non-agricultural services to others (e.g., contract cutting hay, landscape design or accounting services)?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>11. Which of the following value-added products do you process on your farm?</b> Check all that apply.		
<input type="checkbox"/> Processed fruits, vegetables, berries, meats or dairy products (e.g., juices, hams, frozen berries)	<input type="checkbox"/> Beer or liquor	
<input type="checkbox"/> Dried or arranged herbs and flowers (e.g., teas, floral arrangements)	<input type="checkbox"/> Wine	
<input type="checkbox"/> Other value-added products (e.g., soaps, candles, gift boxes)	<input type="checkbox"/> None	
<b>12. Do you lease or rent land to others, or have any easements or timeshares on your land?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>13. In 2008, what percentage of your farm sales came from each of the following types of products?</b> The total should add up to 100%		
<input type="checkbox"/> Crops, livestock or other agricultural products	_____ %	
<input type="checkbox"/> Recreational, entertainment or tourism activities (e.g., tours, weddings)	_____ %	
<input type="checkbox"/> Hunting and fishing	_____ %	
<input type="checkbox"/> Lodging and accommodations (e.g., Bed & Breakfast, cabins)	_____ %	
<input type="checkbox"/> Restaurant, catering and food services	_____ %	
<input type="checkbox"/> Classes, workshops and educational services	_____ %	
<input type="checkbox"/> Other farm products and services (e.g., jams, arts, landscape design)	_____ %	
<b>Total:</b>		<b>100%</b>

<b>14. How important are the following types of products for the continued operation of your farm?</b>	<b>Not Important</b>	<b>Somewhat Important</b>	<b>Important</b>	<b>Very Important</b>	<b>Extremely Important</b>
Crops, livestock or other agricultural products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreational, entertainment or tourism activities (e.g., tours, weddings)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hunting and fishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lodging and accommodations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restaurant, catering and food services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Classes, workshops and educational services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other farm products (e.g., jams, arts, landscape design)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SECTION II: YOUR FARM PRODUCTS AND SERVICES (CONT')**

**15. Which of the following stewardship methods do you currently practice on your land?** Check all that apply.

<input type="checkbox"/> Water conservation	<input type="checkbox"/> Farm/ranch waste management (e.g., composting)	<input type="checkbox"/> Other
<input type="checkbox"/> Soil conservation	<input type="checkbox"/> Protect, propagate or encourage native plants	<input type="checkbox"/> None
<input type="checkbox"/> Wildlife habitat improvement	<input type="checkbox"/> Fisheries habitat improvement	

**16. Have you preserved or restored any heritage or cultural buildings, equipment, artifacts or other objects on your farm?**

No → If no, please go to Section III

Yes → If yes, please continue with questions 16a and 16b

**16a. If yes, what have you preserved or restored?** Check all that apply.

<input type="checkbox"/> Building (e.g., barn, mill, centennial farm house)	<input type="checkbox"/> Equipment (e.g., tractor, tools, oil rigs, windmills)
<input type="checkbox"/> Other (e.g., Indian ceramics, fossils)	

**16b. If yes, how important are the following reasons to preserve those heritage/cultural objects?**

	Not Important	Somewhat Important	Important	Very Important	Extremely Important
<input type="checkbox"/> To preserve American rural heritage	<input type="checkbox"/>				
<input type="checkbox"/> Intrinsic value to me and my family	<input type="checkbox"/>				
<input type="checkbox"/> To re-use it for other purposes (e.g., turning a barn into a gift shop)	<input type="checkbox"/>				
<input type="checkbox"/> To increase farm tourism attractions (e.g., displaying antique tools)	<input type="checkbox"/>				
<input type="checkbox"/> To increase farm revenues (e.g., charge to tour an old chapel)	<input type="checkbox"/>				
<input type="checkbox"/> Other	<input type="checkbox"/>				

**SECTION III: ABOUT YOUR FARM VISITORS**

**NOTE: IN THIS SURVEY, VISITORS ONLY INCLUDE THOSE THAT COME TO YOUR FARM FOR RECREATION OR TOURISM PURPOSES.**

**17. Do you receive visitors on your farm for recreation or tourism?**

Yes → If yes, go to question 18

No → Continue with questions 17a and 17b. → Then skip to **Section VI**

**17a. In the past, have you received visitors on your farm at least 15 days per year for recreation or tourism?**

Yes  No

**17b. Do you have any plans to receive visitors to your farm regularly?**

No  Yes, within the next 3 months  Yes, within one year

Yes, within the next 2-3 years  Yes, but not sure when

**After responding to 17a and 17b, please go to Section VI**

**18. How long have you been receiving visitors for recreation or tourism on your farm?**

Less than 1 year  1 – 2 years  3 – 5 years  6 – 9 years  10 years or more

**19. How many days did your farm receive visitors in 2008?**

Less than 15 days  15 – 29 days  30 – 59 days  60 days or more

**20. During which months do you receive visitors on your farm?** Check all that apply.

<input type="checkbox"/> January	<input type="checkbox"/> February	<input type="checkbox"/> March	<input type="checkbox"/> April	<input type="checkbox"/> May	<input type="checkbox"/> June
<input type="checkbox"/> July	<input type="checkbox"/> August	<input type="checkbox"/> September	<input type="checkbox"/> October	<input type="checkbox"/> November	<input type="checkbox"/> December

**21. On which days of the week do you receive visitors?** Check all that apply.

Monday  Tuesday  Wednesday  Thursday  Friday  Saturday  Sunday

**22. How many people would you estimate visited/will visit your farm in 2008 for recreational or tourism purposes?** \_\_\_\_\_ people

**23. How many people do you expect to visit your farm in 2009 for recreational or tourism purposes?** \_\_\_\_\_ people

**24. How would you describe your farm visitors?** Check all that apply.

<input type="checkbox"/> Families with teenagers or young adults	<input type="checkbox"/> Families with children 12 or younger	<input type="checkbox"/> Couples without children
<input type="checkbox"/> Organization groups (e.g., churches, companies)	<input type="checkbox"/> School Groups	<input type="checkbox"/> Seniors <input type="checkbox"/> Other

**25. How did your farm profits change after you began receiving visitors to your farm for recreational/tourism purposes?**

Profits significantly increased → Please indicate the percent increase: \_\_\_\_\_ %

Profits slightly increased

Profits did not change

Profits slightly decreased → Please indicate the percent decrease: \_\_\_\_\_ %

Profits significantly decreased

**SECTION IV: ABOUT YOUR AGRITOURISM ACTIVITIES**

**26. Which of the following activities do you offer on your farm?** Check all that apply.

<input type="checkbox"/> Tours	<input type="checkbox"/> Corn maze or other mazes	<input type="checkbox"/> U-pick or U-harvest (e.g., berries, Christmas trees)
<input type="checkbox"/> Winery	<input type="checkbox"/> Classes seminars or workshops	<input type="checkbox"/> Observation of agricultural processes (e.g., cider mill)
<input type="checkbox"/> Pumpkin Patch	<input type="checkbox"/> Petting zoos or farm animal displays	<input type="checkbox"/> Cultural or historic exhibits (e.g., museums, antiques)
<input type="checkbox"/> Fishing for a fee	<input type="checkbox"/> Rodeos, cowboy camps or activities	<input type="checkbox"/> Festivals, events and shows (e.g., harvest festival)
<input type="checkbox"/> Hiking or biking	<input type="checkbox"/> Educational tours	<input type="checkbox"/> Field rides (e.g., wagon, tractor or hay rides)
<input type="checkbox"/> Horseback riding	<input type="checkbox"/> Paid or customized hunting tours	<input type="checkbox"/> Wildlife observation (e.g., bird watching)
<input type="checkbox"/> Holiday-related activities (e.g., haunted house, Christmas hot-cocoa rides)		
<input type="checkbox"/> Other activities, please specify:		

**27. Do you charge a fee for any of the agritourism activities offered at your farm?**

No, all of my activities are free of charge → *If no, go to question 28*

Yes, some of my activities are offered for a fee → *If yes, continue with question 27a*

Yes, all of my activities are offered for a fee

**27a. Which types of fees do you charge for your agritourism activities?** Check all that apply.

A general admission fee (e.g., gate fee)       Activity based       Other

**28. Which of the following accommodations and food services do you offer on your farm?**

<input type="checkbox"/> Bed and Breakfast	<input type="checkbox"/> Cottages or cabins	<input type="checkbox"/> Farm vacations (e.g., dude ranch)	<input type="checkbox"/> RV and camp sites
<input type="checkbox"/> Deli store	<input type="checkbox"/> Tasting rooms	<input type="checkbox"/> Catering or customized meals	<input type="checkbox"/> Hotel, inn, lodge or resort
<input type="checkbox"/> Food stand	<input type="checkbox"/> Sit-down dining	<input type="checkbox"/> Cookouts, barbecues or picnics	<input type="checkbox"/> Take-out foods or beverages
<input type="checkbox"/> Other activities, please specify:			

**29. Which of the following do you host/offer on your farm?** Check all that apply.

Weddings or private parties       Corporate or similar retreats       Relaxation or therapeutic services (e.g., spas, massages)

**SECTION V: MARKETING AND MANAGING YOUR AGRITOURISM OFFERINGS**

**30. Which of the following services or facilities does your farm offer visitors?** Check all that apply.

<input type="checkbox"/> Credit or debit cards accepted	<input type="checkbox"/> Private label products	<input type="checkbox"/> Permanent restrooms	<input type="checkbox"/> Portable hand washing stations
<input type="checkbox"/> Permanent hand washing stations	<input type="checkbox"/> Portable restroom units	<input type="checkbox"/> Handicap accessible	<input type="checkbox"/> Bottled water or soft drinks

**31. Do you have any plans to add more recreational/tourism activities to your farm?**

No     Yes, within the next 3 months     Yes, within one year     Yes, in the next 2-3 years     Yes, but not sure when yet

**32. Would you recommend others to develop agritourism activities on their farm?**     Yes     No     Don't know

**33. Which of the following methods do you use to market your agritourism offerings?** Check all that apply.

<input type="checkbox"/> Web page or blog	<input type="checkbox"/> Direct mail to current and potential customers (e.g., customer newsletters)
<input type="checkbox"/> Printed materials (e.g., brochure)	<input type="checkbox"/> Listings in specialized directories (e.g., tourism directories)
<input type="checkbox"/> Sales promotions (e.g., coupons, specials)	<input type="checkbox"/> Customer loyalty clubs or product subscriptions (e.g., wine club)
<input type="checkbox"/> Ads in media (e.g., newspapers, radio, TV)	<input type="checkbox"/> Personal selling (e.g., farmers markets, speaking engagements)
<input type="checkbox"/> Through an association (e.g., Christmas trees, Bed and Breakfast)	

**34. If you were not receiving visitors on your farm, would have more, the same or fewer paid family employees on your farm?**

Fewer paid family employees     The same number of paid family employees     More paid family employees

<b>35. How important are your agritourism activities and farm visitors to accomplishing the following goals?</b>	<b>Not Important</b>	<b>Somewhat Important</b>	<b>Important</b>	<b>Very Important</b>	<b>Extremely Important</b>
Decrease fluctuations in your farm revenues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce impacts of catastrophic events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enhance your ability to meet financial obligations (e.g., debt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generate revenues during off-season	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Better utilize your farm resources (buildings, equipment, labor)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Better serve your current customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Capture new customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase the direct sale of your other agricultural products (e.g., vegetables)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase the direct sale of your value-added agricultural products (e.g., jellies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional revenues keep you and your family farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Keep the farm in the family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide employment for your family members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Make money from a hobby or interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enhance the quality of life for yourself or your family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educate the public about agriculture and nature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Keep you active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SECTION VI: MARKETING AND MANAGEMENT INFORMATION**

**36. How many people did you employ on your farm in 2008? How many of those employees were working in primarily agritourism-related activities? Please estimate totals for the remainder of 2008.**

	Number of Employees	Agritourism Employees
▪ Full-time year-round	_____	_____
▪ Full-time seasonal	_____	_____
▪ Part-time year-round	_____	_____
▪ Part-time seasonal	_____	_____

**37. How many paid and unpaid family members did/will work on your farm in 2008?**  
 Paid family members: \_\_\_\_\_ Unpaid family members: \_\_\_\_\_

**38. Do you have written business and marketing plans?**  
 No     Yes, a written business plan     Yes, a written marketing plan     Yes, written business and marketing plans

**39. Are you currently a member of any of the following business associations? Check all that apply.**

<input type="checkbox"/> A tourism organization	<input type="checkbox"/> A farmers market association	<input type="checkbox"/> Farmers Union	<input type="checkbox"/> Chamber of Commerce
<input type="checkbox"/> AgriMissouri	<input type="checkbox"/> A direct marketing association	<input type="checkbox"/> Farm Bureau	<input type="checkbox"/> Convention or visitor's bureau
<input type="checkbox"/> An agricultural or commodity association (e.g., apple growers)		<input type="checkbox"/> Other. <i>Please specify:</i>	

**40. What type of information would you need or like to receive to begin or enhance your agritourism operation?**

<input type="checkbox"/> Agritourism opportunities (e.g., types of activities offered)	<input type="checkbox"/> Direct marketing and advertising strategies
<input type="checkbox"/> Financial sources and opportunities (e.g., grants, loans)	<input type="checkbox"/> Government agriculture policy and the farm bill
<input type="checkbox"/> Risk management and liability/insurance programs	<input type="checkbox"/> Other. (Please explain below)

**SECTION VII: INFORMATION OF THE FARM OPERATOR**

**41. Who is the main farm operator?**     Husband     Wife     Parent(s)     Child(ren)     Other

**42. Are the operators the first generation of farmers in their family?**     Yes     No     I don't know

**43. What is the age of the farm operator?**

<input type="checkbox"/> 24 years or less	<input type="checkbox"/> 25 – 34 years	<input type="checkbox"/> 35 – 44 years	<input type="checkbox"/> 45 – 54 years
<input type="checkbox"/> 55 – 64 years	<input type="checkbox"/> 65 – 74 years	<input type="checkbox"/> 75+ years	

**44. What is the education background of the farm operator?**

<input type="checkbox"/> Agriculture	<input type="checkbox"/> Business	<input type="checkbox"/> Agriculture and business	<input type="checkbox"/> Other
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**45. What percent of their working time did the operator spend in the following areas in 2008?**  
 (The total should add up to 100%)

▪ Farming or ranching	_____ %
▪ Tourism related activities	_____ %
▪ Other farm activities	_____ %
▪ Off-farm job	_____ %
▪ Other	_____ %
<b>Total Working Time:</b>	<b>100%</b>

**46. Is the operator retired from a previous profession/job?**     Yes     No

**47. With whom does the operator live on the farm? Check all that apply.**

<input type="checkbox"/> The operator does not live on the farm	<input type="checkbox"/> Child(ren) 6 years or less	<input type="checkbox"/> Child(ren) 16 – 20 years old
<input type="checkbox"/> The operator lives alone	<input type="checkbox"/> Child(ren) 7 – 15 years old	<input type="checkbox"/> Child(ren) 21 years old or older
<input type="checkbox"/> Spouse → <b>If you chose "Spouse" indicate the percent of time the spouse spent in the following areas in 2008.</b>		
▪ Farming or ranching	_____ %	
▪ Tourism related activities	_____ %	
▪ Other farm activities	_____ %	
▪ Off-farm job	_____ %	
▪ Other	_____ %	
<b>Total Working Time:</b>	<b>100%</b>	

**48. In 2008, what percentage of your total household income came from each of the following sources?**

▪ Your farm sales	_____ %
▪ Off-farm employment	_____ %
▪ Other income (e.g., social security benefits, investments)	_____ %
<b>Total Income:</b>	<b>100%</b>

**49. Which of the following best represents the operator's annual household income before taxes?** Include all sources of income.

<input type="checkbox"/> Less than \$25,000	<input type="checkbox"/> \$25,000 - \$34,999	<input type="checkbox"/> \$35,000 - \$49,999	<input type="checkbox"/> \$50,000 - \$74,999
<input type="checkbox"/> \$75,000 - \$99,999	<input type="checkbox"/> \$100,000 - \$149,000	<input type="checkbox"/> \$150,000 - \$199,999	<input type="checkbox"/> \$200,000 or more

**Thank You Very Much!!!**