

AN ABSTRACT OF THE THESIS OF

Fernanda de Vasconcellos Pêgas for the degree of Master of Science in Forest Resources presented on June 22, 2004.

Title: An Analysis of the Motivations of Oregon's Ranchers to Diversify into Agritourism.

Abstract approved:

Joanne F. Tynon

Agritourism is one way to sustainably conserve open space. Its potential to supplement Oregon ranchers' income may also preserve ranching culture. Research on agritourism in Oregon and elsewhere, however, is scarce. This study focused on the motivations of Oregon ranchers to diversify into agritourism, the congruence of conservation easements and agritourism, the feasibility of using sustainability indicators as tools to measure agritourism sustainability, and the future of agritourism in Oregon.

This study mimics the one conducted by Nickerson, Black, and McCool (2001), using a mailback survey. A total of 400 questionnaires were distributed to Oregon cattle ranch owners during the summer of 2002. Of those received, 177 were useable, for a response rate of 44%.

Agritourism is hardly pervasive in Oregon; only 21% of respondents indicated they engage in agritourism enterprises. Of those who do, working ranch and fee hunting/fishing are the main activities offered. Top reasons for cattle ranchers to operate an agritourism business are to fully utilize ranch resources, capture additional income, to offset fluctuations in ranch income, and to educate the consumer. Major barriers to agritourism are insurance and liability concerns,

lack of time, regulations, and lack of financial assistance and resources. Only 10% of Oregon ranchers and 19% of ranchers in agritourism had land protected under a conservation easement (both open and closed to the public).

Although none of the hypotheses were supported, significant relationships were found between cattle ranchers in agritourism and the number of years cattle ranchers have been in the ranching business and the presence of family members who work off-ranch part-time year round; and gross annual household income and the hiring of non-family members who work part-time year round in the agritourism business. The majority of respondents rely on livestock production as a source of income, but livestock production is responsible for only about half of ranchers' gross annual household income. Off-ranch income is the second major source of income. Findings indicate that agritourism may provide a profitable source of income allowing more ranchers to work full-time on the ranch while maintaining their ranching livelihood.

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An Analysis of the Motivations of Oregon's Ranchers to Diversify into
Agritourism.

by
Fernanda de Vasconcellos Pêgas

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In understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Fernanda de Vasconcellos Pêgas, Author

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I arrived at Oregon State University September 23, 2002. It was difficult to be away from my home back in Brazil and once again leave my parents, sister, and friends. Move to Corvallis meant starting a new life, learning new lessons, making new friends, and working towards my long-term dream of developing career skills that one day would make a difference; plant a seed to be harvested by the next generations.

At Oregon State University I received great support from the faculty and staff, which greatly helped me cope with the new encountered challenges. Since my arrival I received the attention, the care, and the guidance needed to not only achieve my professional goals but to also to achieve a superior level of understanding about the life learning experiences that are involved and acquired during the development of a master degree.

I came to Corvallis with many questions but I leave with many of these questions already answered. New questions, nonetheless, have been posted but life will provide me with the answers. I leave Oregon with many new memories and memorable moments. I now have new friends and new friendships, new goals and new prospects regarding my future career and personal paths. Such goals and dreams will be fulfilled as I move toward a new phase in my life.

This thesis is dedicated to those who have supported and guided me during these past months and have helped me build strength and perseverance to not give up on my dreams. In the department of Forest Resources, I must thank five special people who have become dear friends of mine: John Bliss, Karen Guthreau, Royal Jackson, Mary Roberts, and Jo Tynon.

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I would like to end this acknowledgment section with a poem that represents my feelings regarding this latest achievement in my life and the way I feel about the journey to where I stand today.

“Be thankful that you don't already have everything you desire. If you did, what would there be to look forward to? Be thankful when you don't know something, for it gives you the opportunity to learn. Be thankful for the difficult times. During those times you grow. Be thankful for your limitations, because they give you opportunities for improvement. Be thankful for each new challenge, because it will build your strength and character. Be thankful for your mistakes. They will teach you valuable lessons. Be thankful when you're tired and weary, because it means you've made a difference. It's easy to be thankful for the good things. A life of rich fulfillment comes to those who are also thankful for the setbacks. Gratitude can turn a negative into a positive. Find a way to be thankful for your troubles, and they can become your blessings.” Author Unknown

DEDICATION

I would like to dedicate my thesis to my loving parents, Maurício and Thania Pêgas, to my wonderful sister, Claudia Pêgas, and to my dear friend and advisor, Jo Tynon.

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An Analysis of the Motivations of Oregon's Ranchers to Diversify into Agritourism

Introduction

Cattle ranches are unique American cultural icons. But, in popular environmental writings, ranching is also associated with the exploitation of natural resources and labeled an environmentally destructive activity motivated by greedy and neglectful livestock operators (Jacobs, 1991; Wuerthner, 1990). Some researchers believe that livestock ranching is a major contributor to unsustainable land use practices in the western United States (Fleischner, 1994; Wuerthner, 1994). Stereotypes about cattle ranching and cattle ranching management practices have been slowly evolving, translating to a greater understanding and resulting in a more positive correlation between agricultural lands and conservation of unique landscapes. Such changes are especially evident on privately owned lands where conservation easements. It is theorized that land conservation easements can provide financial relief to ranchers and offer a sustainable approach to land use practices. Thanks to these official programs and ranchers' land stewardship management practices, ranching is now also being seen by some researchers as a way to sustainably conserve open space and wildlife habitat (Huntsinger & Hopkinson, 1996; Wright, 1993).

Another change that is taking place in the ranching business is diversification into agritourism. Putzel (1994) believes that agritourism is becoming a key factor in today's leisure destinations for many urban visitors. Agritourism is a commercial enterprise at a working farm, ranch, or agricultural plant managed for the enjoyment of visitors that generates supplemental income for the owner based on the development of nontraditional ranching activities (Agri-Business Council of Oregon, 2003). In this study, agritourism is defined as a commercial enterprise that is not necessarily part of traditional ranching activities, but an enterprise that generates additional income for ranchers through the implementation of recreation opportunities, such as lodging, heritage and cultural programs, hunting and fishing leases, and horse packing or other guided trips.

Agritourism, like any business operation, requires financial and social resources, in addition to natural resources, to be a successful enterprise.

Purpose of study

In Oregon, despite the potential of agritourism to add significant income for ranchers, research on motivations and barriers to implement agritourism is scarce. What is available on the topic is mostly focused on other regions, such as the studies done in Montana (Nickerson et al., 2001), Virginia (McGehee & Kim, 2002), and Hawaii (Cox & Fox, 1991). International research is more extensive, such as that done in England (Ilbery, 1991), Australia (Beeton, 2002), France (Rogers, 2002), and Portugal (Kastenholz et al., 1999). Previous research on agritourism has focused on either both farmers and ranchers (Schaller, 1988; Nickerson et al., 2001), or only on farmers (Benjamin, 1994; Ilbery, 1991; McGehee & Doyle, 2003).

This study followed questionnaire guidelines used by Nickerson, Black, and McCool (2001) for four reasons. Their study analyzed the motivations of farmers and ranchers in Montana to diversify into agritourism; their study is more current (i.e., 2001 instead of 1991); Oregon ranchers are more likely to resemble Montana than do Hawaiian ranchers (Cox & Fox, 1991); and the study was more comprehensive regarding labor distribution among family and non-family members.

The findings of this study offer Oregon ranchers and local rural communities an analysis of the needs, benefits, motivations, and barriers to the adoption of agritourism in Oregon from the cattle rancher's perspective. The results offer suggestions for implementing agritourism in organizations ranging from family owned operations to state level marketing agencies.

Agritourism background and terminology

Maetzold (1999) defined agritourism as a business enterprise that includes tourism recreation, agriculture practices, people, agricultural products, and conservation of the natural resources. Murphy (1985) defined agritourism as an enterprise that takes place on working farms that work as complementary businesses to the traditional

agricultural functions through the adoption of a tourism activity. Bowen, Cox, and Fox (1991) defined agritourism as an enterprise that produces agricultural products and welcomes visitors to enjoy local agricultural attributes and purchase agricultural products produced or obtained by the enterprise. For the purpose of this study, I define agritourism as a commercial enterprise that takes place in addition to the traditional ranching enterprise that generates supplemental income for the rancher through the implementation of agritourism activities, such as cultural programs, fee fishing, unguided hunting, and cattle drives. Agritourism activities vary widely from ranch to ranch depending upon the goals of the owner, the resources available, and the interests and talents involved in the adoption and implementation of the agritourism activity.

Conservation easement background and terminology

A conservation easement, also called a conservation restriction (Stockford, 1990), is a voluntary, legally recorded restriction in the form of a deed on the use of property in order to protect resources such as agricultural lands, historic structures, open space, and wildlife habitat (Oregon Public Broadcasting, 2004a). Through easements, it is theorized, not only could ranchers have financial incentives to restore deteriorated lands but ranchers might also be able to prepare selected land parcels for future agritourism practices. For example, restored riparian areas on livestock ranches can be used for wildlife watching, catch and release fishing activities, as well as provide the perfect landscape for scenic hiking, mountain biking and/or horseback riding. While land conservation easements should not be adopted for the sole purpose of profit, land conservation easement contracts can be financially desirable when funding and technical support are part of the agreement between the agency/organization and the landowner. A brief history of land conservation easements and the available alternatives of conservation easements to ranchers and farmers in the state of Oregon inform the study.

Sustainability indicators

Sustainability can be generalized in terms of land use practices, such as grazing patterns, water intake, carrying capacity, and farming operations (e.g., seed species used,

weed/insect control methods, and harvesting methods). Sustainability indicators are evaluation tools used to measure and calibrate progress towards sustainable goals, providing information that can be used to prevent and/or to diminish environmental damage (The United Nations, 2001).

Maetzold (1999) stated that long-term agritourism sustainability depends upon maintaining the quality of the natural resources available, including sustainable and productive agriculture practices. In addition, sustainability indicators measure sustainability of the family ranching operation (Maetzold, 1999). In this study, I looked at indicators that, in the long term, could provide for an analysis of desirable levels of sustainability, both at the ranching and recreation operation levels.

Research questions

The researchable questions for this study are:

1. Why do Oregon cattle ranchers adopt agritourism practices?
2. How does the adoption of conservation easements relate to the adoption of agritourism practices?
3. Can we use sustainability indicators to determine agritourism sustainability?
4. What are the future prospects of agritourism practices by Oregon ranchers?

Rationale

Tourism is one of the fastest growing industries in the world and one that employs about seven percent of the world's workers (Cottrell, 2001). Tourism is also an attractive source of revenue for an individual and/or a community because it is considered a clean activity (because it does not produce waste streams associated with manufacturing), is economically feasible (\$545.5 billion dollars generated in 2002 in the United States alone) (Travel Industry Association of America (TIAA), 2003), and can be implemented at both community and individual levels (Lewis, 1998).

In Oregon, tourism is one of the state's major sources of revenues. In 2003, tourism generated approximately \$6.3 billion dollars in travel spending and directly employed about 90,000 people statewide (Dean Runyan Associates, 2003). The tourism industry, however, has been showing a slow growth for the past few years as reflected in limited growth in room sales, decreased total spending, and flat growth on local taxes (Oregon Tourism Commission, 2003). Nonetheless, research has shown that Oregon's natural resources offer unique and memorable activities (Dean Runyan Associates, 2003). In fact, the growth of tourism in rural areas, both at national and state levels, has generally been higher than the rates found in urban areas (Dean Runyan Associates, 2003).

Agriculture is one of the state's biggest industries, second only to greenhouse and nursery products (USDA Oregon Agricultural Statistics Service, 2003). In 2002 alone, cattle and calve operations statewide generated approximately \$384 million dollars in revenues (USDA Oregon Department of Agriculture, 2003). Even though sales are substantial, the agricultural sector is facing difficulties due to low market costs, environmental regulations, and competitive prices with other states and even other countries for the national market. Agritourism, therefore, could offer an additional source of income for ranchers and farmers. Agritourism income may enable ranchers to maintain their operations, make improvements, or provide financial support for habitat restoration. Other benefits of agritourism for ranchers are to increase revenues, to preserve ranching culture, and enhance public education on the importance of the preservation of rural communities.

Research hypotheses

There are four hypotheses tested in this study and 11 study objectives.

H₁: Agritourism practices are less likely to occur on long established cattle ranches than on newer established cattle ranches. That is, ranchers who have been in the ranching business for more than 20 years are more likely than are newer cattle ranchers to hold on to the tradition of operating a livestock production enterprise that is closed to the public. The study objectives related to this hypothesis are:

1. Examine sociodemographic characteristics of Oregon ranchers engaged in agritourism.
2. Examine the future prospects of agritourism practices on Oregon ranches.

H₂: Cattle ranchers who operate agritourism businesses are more likely to have higher income than comparably sized cattle ranches without agritourism.

H₃: Cattle ranchers who adopt conservation easements are more likely to implement agritourism practices than are those who do not adopt conservation easements. Most conservation easements offer funding for habitat restoration projects, making it easier for ranchers to offer agritourism activities related to habitat protection (e.g., wildlife watching). The research objective related to this hypothesis is:

1. Determine how the adoption of conservation easement programs relates to the adoption of agritourism practices.

H₄: Agritourism is more likely to occur on cattle ranches where family members hold off-ranch jobs than on cattle ranches where family members hold on-ranch jobs. Because they are already benefiting from off-ranch income, ranching families would be more amenable to agritourism practices as income generators. The research objective related to this hypothesis is:

1. Examine the role of on- and off-ranch jobs as they relate to agritourism.

Additional research objectives of this study are:

1. Analyze cattle ranch owners' motivations for adopting agritourism practices.
2. Examine the barriers that exist to adopting agritourism.
3. Differentiate perceived barriers with real barriers.

4. Understand the congruence between what ranchers are offering and what they perceive tourists are looking for in terms of agritourism activities.
5. Examine the marketing efforts in the promotion of agritourism operations by Oregon ranchers.
6. Compare results from this study with the results from the study done by Nickerson and others (2001) and by McGehee and Kim (2002).
7. Examine the capability of using sustainability indicators in agritourism enterprises.

The thesis is organized into six chapters. In chapter two, the literature review covers prior research on agritourism, offers a brief history of conservation easements, provides a brief coverage of cattle ranching operations in Oregon, and discusses the role of sustainable indicators as a measure of sustainability. Chapter three details the research design and the methods used to gather data and address the study objectives. Results are presented in chapter four. Chapter five highlights management implications of ranching diversification alternatives from research findings. Chapter six provides a conclusion and suggestions for future research.

CHAPTER TWO

A study done by the Travel Industry Association of America (TIAA) in 2001 found that about 62% of all U.S. adults have visited a small town or village in the U.S. within the past three years (TIAA, 2001). In 2002, about 118 million American travelers engaged in cultural and historical activities, a 13% increase from 92 million Americans in 1996 (TIAA, 2003). There is a growing interest in cultural heritage, in places that provide peace and solitude, and in ecotourism and agritourism vacation escapes (CNN, 2004). Agritourism meets the needs of a new clientele looking for authenticity, country hospitality, thematic holidays, naturalism, culture, and healthfulness (CNN, 2004). Agritourism activities take place in rural settings such as ranches, where profits stay within the community and are invested locally, directly or indirectly, providing multiple benefits to both owners and tourists. Furthermore, when ranchers become involved in an agritourism enterprise, the culture of cattle ranching can be experienced and better understood through experiences such as the ones acquired during children's programs, cattle drives, and guided horseback pack trips.

Agritourism as diversification

Agritourism has the potential to link agricultural culture with agricultural goods, an integrative approach that can be used by ranchers to expand and supplement their income while offering a recreational opportunity for the public (Maetzold, 1999; Murphy, 1985). For many ranchers, the adoption of an agritourism enterprise can be the result of external rewards (e.g., a better understanding of the ranching culture), intrinsic awards (e.g., for companionship with guests and visitors), financial independence (e.g., generation of additional income), and family security (e.g., employment of family members) (Kuratko et al., 1997).

The concept of farm/ranch diversification is interpreted differently in the literature. McInerney and others (1989) claim that farm diversification, at its simplest, can be defined as income generated by family members from off-farm or off-ranch activities, and any non-farming commercial enterprise that brings additional income into

the farm household. McInerney and Turner (2001) point out that this interpretation ties diversification to the activities exercised by family members rather than activities associated with ranch and/or farm land, machinery, and hired labor; therefore, diversification should be based on farm businesses which diversify, not farm families who look into other forms of job opportunities beyond ranch/farm jobs. The National Farmers Union (1986) agrees with this statement, referring to diversification as the development of nontraditional farm enterprises, covering a multitude of situations that can often only be adequately defined as different practices.

Slee (1986) sees a diversification approach as an enterprise that takes place on mainly agricultural units that are not based on the primary production of food and fiber. Griffiths (1987) believes that unconventional crops and livestock are not good representatives of farm diversification. Griffiths (1987) called these activities agricultural diversification practices while those geared towards the public and are marketing dependent, were called structural diversification. Structural diversification includes agritourism (e.g., accommodation and recreation) and passive diversification (e.g., leasing of land and/or buildings).

Agritourism is an effective vehicle for rural diversification and, in turn, can become a profitable option for ranchers who are looking for alternative sources of income. Putzel (1994) believes that agritourism is becoming a strategic area of tourism, offering escape to members of society who want a different experience from everyday life. It is also seen as an activity that revitalizes the true American character (Putzel, 1994). For Sharpley (2002), agritourism can bring extensive benefits to rural communities and individuals, such as job promotion and culture preservation. Moreover, many of today's tourists are looking to rural areas as their vacation destinations. Tourists expect rural areas to be unaffected by congestion and to provide access to open, undeveloped space (Cox & Fox, 1991; TIAA, 2003).

Ecotourism, cultural tourism, and agritourism

Ecotourism and cultural tourism are two categories of tourism that can be successfully explored by agritourism businesses. "Ecotourism is about preserving the

natural environment and giving the locals fair employment” (Zieger & McDonald, 1997, p. 84). Visitors play the role of stewards of the land, rather than land exploiters. Fennell and Weaver (1997) classified ecotourism as a “form of tourism which emphasizes the non-consumptive appreciation of natural attractions” (Fennell & Weaver, 1997, p. 468). Brown (2002) classified ecotourism, or nature based tourism, as the process of visiting natural areas for enjoying the local surroundings, its wildlife, and plants. Ralph (2001) categorized ecotourism as any activity in which the appreciation of the natural resources is taken into consideration. Ecotourism should be done on a small scale, be locally managed, and be an unobtrusive form of tourism.

Profits are also part of ecotourism businesses if revenues are gathered in a sustainable matter. That is, ecotourism enterprises should employ local residents instead of outsiders, and the capital generated should stay within and benefit the local community.

Despite the expected benefits, ecotourism, if poorly managed, can negatively impact local resources and communities. King and Stewart (1996) found, for example, that unless managed carefully, ecotourism could result in overcrowding and in disturbance to sensitive areas.

Cultural tourism, also called heritage tourism by Purcell (1991), offers a distinct alternative for tourists who desire to intimately explore culture and tradition. Cultural tourism emphasizes authenticity, long-term sustainability, and community involvement (Brown, 2002). Heritage tourism, on the other hand, aims to provide visitors the experience of visiting places and doing activities that symbolize the history of a region, a locale, and its people (USDA Natural Resources Conservation Service – Alternative Enterprises, 2003). Although differences in interpretation may exist, ecotourism, cultural tourism, and heritage tourism are compatible with ranching operations through agritourism.

The agritourism clientele

Agritourism businesses have a high potential for growth in today’s rural tourism market, especially among baby boomers (Hill, 1993; TIAA, 2003) and the elderly

(Guinn, 1980; Schoemaker, 1990; Hagan & Uysal, 1991). Another profitable market segment is the family group. In agritourism, family recreation activities take place when parents and/or grandparents bring their children to learn and experience firsthand what rural life is all about.

The desire to develop a relationship with visitors who are interested in the ranching culture and lifestyle or on the resources offered by the location may present a welcome break from the ranching routine. Many of today's visitors have had a "rural" experience during their youth but have moved to a metropolitan area as adults. Revisiting rural areas via agritourism can help bring back the experiences lived during childhood. On the other hand, there are those who do not have a rural background but, nonetheless, seek a connection with a rural setting. Some visitors may be satisfied being a cowboy for a day; others may be looking for softer adventures. Moreover, today's modern and relatively affluent society is looking for alternative sources of services, products, and resources that have been historically provided by local farmers and ranchers (McInerney & Turner, 1991). The adoption of agritourism is an opportunity for ranchers and farmers to exploit a growing niche in rural recreation.

Agritourism benefits

The benefits of agritourism are diverse. Agritourism benefits can be economical (e.g., generation of additional income and employment of family members) (Ilbery, 1991); social (e.g., companionship with visitors and guests) (Weaver & Fennell, 1997). Agritourism can also take advantage of available ranch resources (Nickerson et al., 2001). On a broader scale, agritourism can benefit the local community through the generation of job opportunities, preservation of local natural resources, and improving the local economy through direct tourism sales (Frederick, 1992).

According to Frederick (1992), benefits beyond income generation also emerge from agritourism, including the generation of jobs for nonmetro communities with emphasis on underdeveloped communities; improvement of the local quality of life through indirect and direct revenues generated by agritourism; support of local culture by encouraging restoration of historical buildings and sites as well as the use of traditional

costumes and festivities; and increased conservation efforts because visitors are attached to the resources.

Kastenholz et al. (1999) concur; they found that agritourism has important benefits not only to the landowners but also to the community involved because of income generation and use of local natural resources. They note that agritourism provides income in addition to revenues originated from traditional ranching; provides an alternative to use ranch machinery and personnel; increases public awareness about the needs of ranchers and their financial and liability challenges to keep a ranch in business; can be used as a tool to educate the public on ranching culture and natural resources use and allocation; creates an opportunity to use local products (e.g., hay harvesting, cattle herding, and wildlife hunting and watching in a profitable matter); and provides for a superior income generation and a reduction of ranch work if, for example, landowners decide to reduce the number of animals raised.

Weaver and Fennell (1997) found that agritourism: enhances employment opportunities; increases income potential for local residents and those directly involved with the operation; diversifies the local economic base through indirect and direct income generation opportunities; raises community visibility once tourists associate the region with agritourism opportunities; and increases tax revenues through tourism taxes.

Motivations to diversify into agritourism

Ilbery (1991) observed that the main reasons for farmers and ranchers to diversify into agritourism were the need for additional income, the availability of resources (land, labor, and capital), location, and personal reasons. He subdivided the larger group of farmers and ranchers in agritourism businesses into three main types of farmers: (1) the hobbyist, part-time and semi-retired farmers with minimal farm income and no farm debt; (2) the survivors through diversification (no other way to preserve the farming business); and (3) the accumulators of capital (capital invested in other forms of capital which became the main source of income for the family).

Based on this, one may think that most ranchers who are facing financial difficulties and/or want to be in contact with the public would be more than willing to

adopt agritourism as a coping strategy. However, external and internal negative factors may outweigh any positive outcomes generated by agritourism. Land-use planning control and restrictions (Ilbery, 1991; Nickerson et al., 2001); tenancy restrictions (increase in rental charges, break agreement issues); lack of money (due to the decline in farm income to invest in diversification); lack of marketing skills (Clarke, 1996); farmers' attitudes and beliefs that diversification is separate from the main agricultural business; and the lack of knowledge about potential customers (Thurston et al., 2002) have been found to affect ranchers' decisions to adopt agritourism (Ilbery, 1991).

Research has shown that there are three major areas of study when analyzing the role of diversification in the agricultural sector: (1) current policy influence and federal/state subsidiary support (e.g., Liffman et al., 2000), (2) motivations to diversify (e.g., Nickerson et al., 1997) and (3) characteristics of diversified properties (e.g., Ilbery, 1991). Clearly, in order to better understand agritourism development, more research needs to be done regarding rural residents and their aspirations (Castle, 2002) as well as the reasons or motivations for ranchers' decisions to diversify into agritourism (Nickerson et al., 2001).

Economic imperatives motivate European farmers and ranchers to diversify into agritourism (Ilbery, 1991). Economic imperatives are also key motivations for farmers and ranchers in Canada (Weaver & Fennell, 1997), Australia (Getz & Carlsen, 2000) and in the United States (Lynn & Reinsch, 1990; McGehee et al., 2002; Nickerson et al., 2001). However, Hjalager (1996) and Opperman (1995) found that agritourism provides little extra income to farm revenue, with the returns from such investments rarely meeting the desired expectations. One explanation is that most agritourism operations are small in scale and service a highly seasonal market (Fleischer & Pizam, 1997). Others have found that ranchers who use agritourism as an additional source of income can withstand the negative effects of seasonality and overcome recession many times more easily than those who depend on a single source of revenue (Frederick, 1992; Kastenholz et al., 1999; Nickerson et al., 2001).

Weaver and Fennell (1997) found that sharing the rural experience with outsiders, opportunities to socialize and meet new people, and gaining personal satisfaction were

important motivations for Canadian farmers and ranchers. Ilbery (1991), however, found that British farmers and ranchers ranked personal reasons as minor reasons to diversify. In the United States, farmers, whose main source of income derive from off-farm sources, identified social and personal reasons as key to diversifying into agritourism (Lobo et al., 1999; McGehee et al., 2002; Nickerson et al., 2001). Farmers offering accommodations as agritourism opportunities ranked the availability of resources and proximity to the urban fringe as major factors in their decision to diversify (Ilbery, 1991). American ranchers and farmers also emphasized that the ability to educate the public about agriculture made a difference when deciding to adopt agritourism (McGehee et al, 2002; Lobo et al, 1999; Nickerson et al., 2001).

Nickerson and others (2001) found that for both farmers and ranchers in Montana the main reasons to diversify into agritourism were to supplement their income, fully utilize available resources, and to overcome fluctuations in agriculture income. In addition, they also found significant differences in the motivations to diversify among farmers and ranchers who currently own an agritourism operation and those who plan to diversify. Current agritourism operators were more economically motivated than those who intended to diversify. Property size was significant: owners of properties up to 3,000 acres were more concerned with economic factors while those who did not own property or who owned more than 3,000 acres were more concerned with outside forces.

In some cases, the motivation to adopt agritourism may result from external difficulties or challenges imposed on the survival of farms and ranches (Evans & Ilbery, 1989). In such instances, agritourism may provide the necessary support for ranchers and their families to continue working on their land without ceasing the operation due to financial, social, and/or personal pressures. Therefore, agritourism can be a beneficial tool when accommodating for these external challenges. Agritourism, then, may hold the last hope for maintaining one's ranch by generating sufficient income to support both ranch operations and the family.

In critical circumstances, agritourism revenues may define the difference between survival and bankruptcy, "forcing" farmers and ranchers to diversify (McInerney & Turner, 1991). Embacher (1994) believes that agritourism can offset income fluctuations

so that ranchers can continue to be self-employed, eliminating the need to look for off-ranch jobs. One of the many ways agritourism can offer such opportunities is through the direct sale of ranch products to visitors (e.g., handcrafts items). Direct sale can promote a positive image of the ranch by using visitors as the ranch's public relations representatives through word-of-mouth marketing promotion because of the direct contact of visitors and ranchers.

Barriers to agritourism

Before ranchers consider an agritourism enterprise, they should examine the barriers to adopting agritourism. In the conceptual framework developed by Evans and Ilbery (1989), barriers to diversify into agritourism are classified into external environments (e.g., regulations, rules, and legal regulations, high rate of inflation) and internal environments (e.g., labor, land). Nickerson and others (2001) segmented these barriers into social reasons (e.g., companionship with guests/users), economic reasons (e.g., fluctuations in ranch income), and external influences (e.g., losing federal grazing permits).

Oregon ranchers' barriers were classified as internal and external barriers. Internal barriers are barriers that can be mitigated by the rancher and are under the control of the ranchers (e.g., lack of time). External barriers are barriers that cannot be mitigated by the rancher and are not under their control. These barriers take place independently from the rancher's actions and ranching management practices (e.g., liability and insurance).

The drawbacks of agritourism

Agritourism, like any other type of tourism, can negatively impact a community and individuals through undesirable economic, social, and environmental consequences (Sharpley, 2002). Such consequences must be addressed and their impacts and benefits weighed prior to developing an agritourism enterprise. Brown and Fazzone (1998) note that most agritourism jobs are seasonal low-paying jobs with limited benefits.

Additionally, agritourism changes the character of a rural area, changes land prices and, consequently, changes the property taxes on surrounding lands.

Brown (2002) reports that agritourism may cause a change in the rural sense of place through an increase in population number, traffic flux, and crime rate. An increase in the demand for services, such as police and fire protection, and an increase in the demand for infrastructure, run the risks of degrading local natural resources.

Some ranchers see agritourism as synonymous with the disruption of both job and property values. Moreover, developments can be interpreted negatively because they move ranchers away from traditional lifestyles (Brown, 2002). Nelson (2002) found that cultural aspects (e.g., family relationships and recreation activities) are important factors to be taken into consideration if one is to understand different perceptions of agritourism. Nonetheless, it is important to note that agritourism can also preserve local traditions, culture, and the natural resources (Nelson, 2002).

Property and land use characteristics found in agritourism

McInerney and Turner (1991) examined ten thousand agricultural landowners with similar holdings in terms of size, regional location, and farming type in England and Wales. Of these landowners, 41% had at least one type of diversified activity in their agriculture operation. In terms of size, 84% had properties classified as very small to medium size properties (in British Size Units). The most diversified operations (26%) were classified as small.

McInerney and Turner (1991) compared property size with the number of agritourism activities offered and found that larger properties offered more agritourism activities than smaller properties. In another study, Ilbery (1991) found that about half of farms in which agritourism activities were implemented were larger than the average farm size for the area. Ilbery (1991), however, did not find a direct relationship between the size of the property size and type of agritourism activities (e.g., pick your own produce, wildlife watching) offered by the farmer. Nickerson and others (2001) found that fluctuations in ranch income were a concern for farmers and ranchers who owned

small properties, while large properties owners were less concerned about meeting a need in the recreation market and tax incentives.

In addition to size, McInerney and Turner (1991) found that 29% of the surveyed landowners had cropping farms, and 22% had lowland livestock. Nickerson and others (2001) found that property location influences the type of operation that takes place and the level of concern regarding losing government incentives, such as subsidy for irrigation alternatives.

In relation to the type of operation, Ilbery (1991) found that diversification tends to occur more often on farms with extensive livestock enterprises, although not on those with intensive dairying. Ilbery (1991) believes that dairy farms are more time-consuming than livestock operations and that the capital-intensive nature of dairy farming appears to restrict opportunities for diversification, except where dairy products could be directly produced for consumption (e.g., milk, cheeses, butter and yogurt).

Hiring outside labor may have some association with agritourism. McInerney and others (1991) found that hiring outside labor was relative to the region and type of operation. In their study, McInerney and others (1991) found that about 80% of surveyed farmers and ranchers did not hire an outside labor force. Researchers speculate that agritourism plays an accessory role to the farming business activity due to the small share of the labor time of farm operators and their families.

Land conservation easements

A century and a half ago, the Pacific Northwest, Oregon, and the Willamette Valley drew families from other regions of the country in search of a better life and a new beginning. Today, Oregon's newcomers prefer urban areas to agricultural lands (USDA Oregon Department of Agriculture, 2003). The shift in settlement can also be seen in land use practices, land stewardship approaches, and land values. For example, land can be worth more if developed as housing than if kept in agriculture. In addition to land use changes, pressures from the environmental community and from the global market pose additional and significant burdens on the livelihood of ranchers statewide and nationally.

In 1973, in an effort to effectively manage for such fast land conversion the Oregon Legislative Assembly passed the Land Conservation and Development Act (Ahr, 2004). Since then, Oregon cities need to file land use plans that are consistent with the state's land use goals. This change in land use planning has reduced the rate of urban sprawl by focusing land development to areas adjacent to Urban Growth Boundaries. These areas are specially zoned for rural residential, commercial, and industrial purposes (Ahr, 2004).

Conservation easement programs have also been used to address these challenges and they do so by offering technical and financial support to landowners to maintain their rangeland undeveloped, to restore deteriorated habitats, and to preserve unique ecosystems. Preservation also takes place through the permanent purchase of development rights, which protects the land from being sold for development (Land Trust Alliance, 2004a).

The first conservation easements were written to protect the parkways around Boston in the late 1880s and received a more extensive use in the 1930s by the United States National Park Service along the Natchez Trace and Blue Ridge Parkways (Haapoja, 1994). In 1969, conservation easements were first recognized in their current legal form in Massachusetts with the passage of the state's Conservation Easement Enabling Act (Van Ryn, 2002). The first official conservation easement took place in 1977 in Vermont, and now conservation easements exist in all fifty states.

A conservation easement, also called a conservation restriction (Stockford, 1990), is a voluntary, legally recorded restriction in the form of a deed on the use of property in order to protect resources such as agricultural lands, historic structures, open space, and wildlife habitat (Land Trust Alliance, 2004b). In granting the easement, the landowner conveys certain rights in the property to a governmental agency, or private/charitable organization for the public benefit. The rights given up and the duration of each contract vary according to the specific attributes of the property, the desires of the landowner, and requirements stipulated by the agency/organization from which the funding and support originates (Stockford, 1990). Stipulations could include such things as prohibiting the use of the land for housing development (Land Trust Alliance, 2004b), permanently

maintaining the land as a working forest (Sader et al., 2002), or designating the land as an area of prohibited tree removal (Haapoja, 1994).

Conservation easements can be sponsored by either a private organization (e.g., The Nature Conservancy), or local, state, and federal agencies. A 1985 survey listed 499 organizations and agencies that held a combined 1.8 million acres of land under conservation easements (Sand, 1998). As of December 2000, land trusts alone have conserved more than 6.2 million acres of open space (Land Trust Alliance, 2001).

Agritourism and land conservation easements

Munton (1990) found seven elements of agricultural survival strategies ranchers and farmers adopt to cope with the external and internal challenges imposed on the managerial efficiency of agricultural businesses. One of the survival strategies is ranch diversification. Huntsinger and Hopkinson (1996) also suggest using zoning, tax relief, and conservation easements as tools for protecting the rangeland landscape, open land, and the agricultural business itself.

In an effort to create financial incentives to ranchers and farmers to adopt restoration practices, government agencies and private organizations have developed programs that provide the necessary financial resources. These projects and programs aim for cooperative efforts between ranchers and the private, state, and/or federal agencies (Huntsinger & Hopkinson, 1996). Research done by Huntsinger and Hopkinson (1996) has shown success in the interaction of ranchers, agencies, and environmentalists in California and Colorado.

Land conservation easements can help keep land within a family's ownership thanks to financial support provided in exchange for the limitations imposed by the easement contract regarding land use conversion. Regardless of the type of easement (e.g., restoration of riparian areas for salmon habitat, grassland protection), a land parcel managed under a conservation easement contract is prevented from being subdivided and/or being used for urban development purposes. Some conservation programs also involve technical assistance during different stages of the conservation program

implementation and development processes, giving ranchers the unique, and sometimes essential, support to successfully implement a restoration plan.

Land conservation easements can also provide financial relief via reduction on inheritance and property taxes and offer a sustainable approach to land use practices (Ahr, 2004). Because the conservation easement lowers the property value, estate taxes are also lower, increasing the likelihood that family heirs will retain the land rather than sell it because of high tax costs (Society for the Protection of New Hampshire Forests (SPNHF), 1997). The financial incentive from a conservation easement can make the difference between implementing and not implementing a restoration plan and doing so without jeopardizing the ranching operation. Once an area within the ranch, or all the land coverage, is under a conservation easement, the market value of the ranch and, consequently the property taxes to be paid by the rancher, decrease in value (Haapoja, 1994).

Table 1 shows some of the advantages generated by conservation easements to landowners. Despite financial incentives present in certain conservation programs, intrinsic motivations (e.g., being good steward of the land) are also important factors to adopt a conservation easement (Ryan et al., 2003).

Table 1: Advantages generated by conservation easements to landowners (USFWS, 2003).

Private Ownership	The property remains in private ownership and continues to contribute to the local tax base. The landowner may choose to live on the land, sell it, or pass it on to heirs.
Flexibility	Conservation easements are flexible and can be written to meet a particular landowner's need while protecting the property's wildlife resources.
Permanency	Most conservation easements are permanent, remaining in force when the land changes hands. The easement holder ensures that the restrictions are followed.
Tax Reduction	There are significant tax advantages if easements are donated rather than sold.
Charitable Taxes	The donation of a conservation easement to a land trust is treated as a charitable gift of the development rights. The donation creates a charitable tax deduction, equal to the value of the conservation easement, on the landowner's federal and state income tax returns.
Estate Taxes	State taxes are significantly lower, sometimes making the difference between heirs holding onto the family land or selling it to pay inheritance taxes.
Property Taxes	Conservation easements will sometimes lower property taxes, a result of reduced valuation on property subject to the conservation easement.

Procedures to acquire a conservation easement

The landowner (e.g., rancher) is the grantor of the easement and the land trust, non-profit organization, or governmental agency is the grantee of the easement. The grantor and the grantee work together to write the easement, which will become part of the property deed in perpetuity (Ahr, 2004) or under the stated contract period. Once the contract is signed, the grantee will monitor the land allocated under the conservation easements and will visit the property to ensure land use limitations are not violated (Ahr, 2004).

Locally, property taxes are generally based on the value of taxable land and improvements found within the property (Stockford, 1990). Most states require that such taxes be based on a specified percentage of the fair market value of the property in

question. Fair market value is the amount in cash for which the property would have been sold on the effective date of the appraisal after a reasonable exposure of time on the open competitive market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer (Oregon Public Broadcasting, 2004b).

Fair market value of the conservation easement is ascertained through standard real property appraisal methods. The fair market value of the land is evaluated before and after the conservation easement is granted. This difference in land value equals the value of the conservation easement. If the conservation easement meets minimum conservation objectives, then its value can be deducted from income taxes (SPNHF, 1997). There are, however, differences in the amount and type of reimbursement derived from tax returns. The regulatory requisite considers the length in which the easement is to be held (ten years, fifteen years, or permanently) and the time it was conceived (during owner's lifetime or as stipulated in a will).

Critics of the system say that land conservation easements are an elitist approach because conservation easements benefit those in the upper and upper-middle class income brackets (The Economist (no author designated), 1997). Typically, once selected lands are in the program, adjacent property prices tend to rise, moving the land price out of the middle-class market and into a higher income bracket (The Economist (no author designated), 1997). In addition to preserving the land from development, the scenic view is also preserved, adding an intrinsic value to surrounding properties. Joyce (2000) also calls for attention to the possible judicial cost associated with the monitoring and protection of the easement in perpetuity.

In an effort to minimize undesirable surprises, ranchers must be aware that most easements prohibit "commercial, industrial, and mining uses of the land. These include: changing the topography, such as dredging and filling in wetlands or along shorelines; disturbing the habitat of rare or endangered species of plants or animals; erecting outdoor advertising structures such as billboards; removing topsoil and other surface or sub-surface materials; and constructing residential, commercial, or industrial buildings" (SPNHF, 1997, p. 14). One or more of the above land use limitations can be requirements found on programs sponsored by federal agencies (e.g., the Conservation

Reserve Program) or by a land trust (e.g., Greenbelt Land Trust) (Land Trust Alliance, 2004a).

The Conservation Reserve Program (CRP)

In 1985, the Food Security Act, as amended, provided the agricultural sector with the Conservation Reserve Program (CRP) (USDA Farm Service Agency, 2002). “The CRP is implemented through the Farm Service Agency (FSA) on the behalf of the Commodity Credit Corporation (CCC). The program is also governed by the regulations published in 7 CFR part 1410” (USDA Farm Service Agency, 2002, p.1).

The CRP is a voluntary program that offers annual rental, incentives, and maintenance payments for specific conservation activities (USDA Farm Service Agency, 2002). Contracts can have a duration of ten years or 15 years, with a possibility of continuous renewal. Cost-share assistance is available in an amount equal to, but not more than, 50% of the participant’s costs to establish approved cover on eligible cropland (USDA Farm Service Agency, 2003). Technical support is provided by local Soil and Water Conservation Districts, the Natural Resources Conservation Service, the Cooperative State Research and Education Extension Service, and state forestry services. Vendors from the private sector may also provide technical assistance if required (USDA Farm Service Agency, 2002).

The CRP’s original objective was to develop management practices that would establish the protection of soil and water resources on highly erodible lands (USDA Farm Service Agency, 2002). In addition, it was designed to provide an incentive to farmers and ranchers to adopt conservation practices in order to reduce erosion and sedimentation generated during the years of great production to supply the international demand market. Grasses and trees were planted in these selected land tracts, favoring habitat restoration, and erosion and sedimentation control (Butler, 1997).

In 1996, the CRP focused on environmental benefits instead of crop production. Unfortunately, ranchers who applied for the CRP between 1986 and 1996 were not qualified for re-enrollment into the new CRP program. As a result, these ranchers lost

the extra income generated by the CRP and many considered reusing the same parcels to reinitialize the agricultural cycle to replace the lost income (Butler, 1997).

In Oregon, as of April 2004, 1,701 farmers and ranchers have been involved in the CRP totaling 495,781 acres of conserved resource lands (USDA Farm Service Agency, 2004a).

The Oregon Conservation Reserve Enhancement Program (OCREP)

The Oregon Conservation Reserve Enhancement Program (OCREP) was developed in 1998 when then Agriculture Secretary, Dan Glickman, announced the creation of a new partnership program between the USDA and the state of Oregon. The OCREP received \$250 million in funds to protect Oregon streams that are home to endangered and threatened salmon and trout species (USDA Farm Service Agency, 1998a).

The OCREP is a “joint federal and state conservation program that targets significant environmental effects related to agriculture” (USDA Farm Service Agency, 1998a, p. 1). The OCREP is a voluntary program that uses financial incentives to encourage farmers and ranchers to enroll in the Conservation Reserve Program (CRP). Like the CRP, ranchers can choose between ten- or fifteen-year contracts (USDA Farm Service Agency, 1998b). Ranchers can also select land use rights under family inheritance, land use limitations, and land use restrictions (Stockford, 1990).

The OCREP aims for the long-term maintenance of resource conserving vegetative covers on environmentally sensitive areas adjacent to selected streams and rivers (USDA Farm Service Agency, 1998b). The objectives are maintenance of river and stream water temperatures at natural levels; reduction by 50% of sediment and nutrient pollution from agricultural lands adjacent to streams; stabilization of streambanks along critical salmon and trout streams; and restoration of natural hydraulic and stream channel conditions on 2,000 miles of streams (USDA Farm Service Agency, 1998a). Projects also promote shade and subsequent water temperature reductions through planting of native riparian tree species and improvement of riparian buffers that work as stream pollution filters (USDA Farm Service Agency, 1998c).

Ranchers enlisted in the program receive cost-share and technical assistance (USDA Oregon Department of Agriculture, 1998). There are four payment types: annual rental, cost-share assistance, a maintenance incentive, and a cumulative impact incentive. The federal government pays 50% of the installation cost (e.g., fences), and the state government pays 25% of the conservation cost (e.g., new vegetation) (USDA Farm Service Agency, 1998c). Participants receive a one-time incentive payment upon enrolling in the OCREP and another payment after all the contract phases have been completed. Participants also receive an annual rental payment for the land (USDA Farm Service Agency, 1998c). Technical support is provided by local Soil and Water Conservation Districts, the Natural Resources Conservation Service, the Cooperative State Research and Education Extension Service, and state forestry agencies (USDA Oregon Department of Agriculture, 1998).

The main differences between the CRP and the OCREP are the objectives of each program. While the CRP focuses on long-term conservation management practices to improve soil, water, and wildlife resources, the OCREP focuses on restoring riparian vegetation on agricultural lands along streams, to benefit and to improve aquatic and wildlife habitat (USDA Oregon Department of Agriculture, 1998). Otherwise, these two programs have similar payment forms and contract years.

In Oregon, as of April 2004, 358 farmers and ranchers have been involved in the OCREP totaling 12,580 acres of conserved resource lands (USDA Farm Service Agency, 2004a).

Grassland Reserve Program (GRP)

Grasslands make up the largest land cover on America's private lands, covering more than 525 million acres (USDA Natural Resources Conservation Service, 2003a). The Grassland Reserve Program was developed in 2002 and “it is authorized by the Food Security Act of 1985 as amended by the Farm Security and Rural Investment Act of 2002. The USDA Natural Resources Conservation Service (NRCS) and USDA Farm Service Agency (FSA) administer the program, in cooperation with the USDA Forest Service. Funding for the GRP comes from the Commodity Credit Corporation (CCC)”

(USDA Natural Resources Conservation Service, 2003a, p.1). The funding allocation for the GRP was \$254 million to be allocated for the fiscal years of 2002 to 2007 (USDA Natural Resources Conservation Service, 2003b).

The Grassland Reserve Program (GRP), like the Conservation Reserve Program (CRP) and the Oregon Conservation Reserve Enhancement Program (OCREP), is a voluntary conservation program created to conserve and protect two million acres of “restored or improved grassland, rangeland, and pastureland” (USDA Natural Resources Conservation Service, 2003c, p. 1). Conservation is done through the purchase of conservation easements (USDA Natural Resources Conservation Service, 2003a). Under the GRP, ranchers can request assistance for grazing management, prescribed burning, range seeding, fencing, and brush management.

There are two types of contracts: permanent easement and 30-year easement. (USDA Natural Resources Conservation Service, 2003c). Costs associated with appraisal fees, survey costs, title insurance and recording fees are covered by the USDA. Ranchers can also choose to apply for rental agreements, which can be ten years, 15 years, 20 years, or 30 years long. The USDA “will provide annual payments of 75% or less of the grazing value of the land” (USDA Natural Resources Conservation Service, 2003c, p. 2). On grasslands that have never been cultivated, the CCC covers up to 90% of the restoration costs (USDA Natural Resources Conservation Service, 2003c).

As of May 30, 2004, no information on the number of acres under the GRP in Oregon was available to the public.

American cattle ranching: a historical background

The first cattle herds were introduced in what is today Texas and California by Spanish settlers in the late 1700s and reached the states of Oregon, Nevada, Montana, and Idaho in the 1860s (Borman, 1999). Cattle numbers increased significantly after the Civil War and by the mid 1880s, there were about twenty-six million cattle and twenty million sheep in the western United States (Wilkinson, 1992). Most of the cattle grazed on open range because most of the private land consisted of small allotments (Borman, 1999).

Under the Homestead Act of 1862, the 160 acres of land allocated to homesteaders were complemented with large blocks from public rangelands, facilitating the growth of western ranches. In 1887, the General Allotment Act, or Dawes Act, set aside about ninety million acres of Native American land for low cost grazing activities. In 1906, the United States Forest Service created the AUM (an animal unit per month – one cow or one horse or five sheep or five goats per month). An AUM is a permit based grazing right that is systematically included in the cost of the property involved, which makes it an inextricable part of the ranching operation (Wilkinson, 1992).

The 1930s were marked by the Great Depression (Johnson & Beale, 1998). The Taylor Grazing Act of 1934 was a response to the Great Depression and the Dust Bowl phenomena. This Act established grazing permits for individual cattle ranchers who were dependent on public land use (Borman, 1999), setting aside eighty million acres of grazing land to be administered by the Bureau of Land Management (BLM). The Act gave ranchers grazing preference based on their historical use (Wilkinson, 1992).

Between the 1950s and 1960s, the AUM fees increased but did not reach the market value paid by non-permit holders. In 1969 the decision to authorize grazing (or not to authorize grazing) on public land had to be in compliance with the National Environmental Policy Act (NEPA), which took into consideration the number of animals involved, the kind and class of grazing animal, the grazing season and system, and planned improvements (Rangelands West, 2002). Other acts have emerged since the creation of NEPA, such as the 1976 Federal Land Policy and Management Act and the 1978 Public Rangeland Improvement Act (Wilkinson, 1992), introducing additional regulations on land use practices and bringing a new approach to traditional management practices and operations. Despite being criticized for its low market cost to permit holders, the AUM permit system is vital for many ranchers who want to maintain their ranch operations because the possession of AUMs allows ranchers to manage for livestock grazing with feasible grazing costs. The possession of AUMs also adds economic value to the ranch. The rancher can acquire a higher sale price when AUMs are included with the ranch land being purchased (Wilkinson, 1992).

An oscillation in the rural migration pattern occurred in the 1970s, with an actual increase in rural population numbers thanks, in part, to continued population growth in the large urban centers, fewer out-migrants from the rural areas to the urban areas, and higher immigration numbers (Johnson & Beale, 1998).

In 1973, the United States permitted the expansion of exports of agricultural commodities resulting in an increase in farming acreage nationwide (Butler, 1997). Unfortunately, expanded agriculture exports did not survive the farm crisis of 1980-1986 (Johnson & Beale, 1998). The once profitable international market was closed in 1979, leaving many ranchers and farmers in economic hardship and burdened with environmental problems (Butler, 1997).

During the same period, the North American Free Trade Agreement (NAFTA) brought alterations to the nation's export and import markets. Live cattle from Mexico and Canada were imported to supply the demand of American feedlots (The Eagle, 2002), making the United States the world's biggest beef importer, reaching 1.47 million tons by 2002 (USDA Farm Service Agency, 2002). Prior to NAFTA, between 1991 and 1994, the United States agricultural trade surplus with Mexico and Canada increased by \$203 million dollars. Since then, the surplus fell by \$1.498 billion dollars (Public Citizen, 2002). In the 1990s, the United States was the leading beef exporter, but has since dropped to third (USDA Farm Service Agency, 2002).

The 20th century closed with the cattle market in decline even though the agriculture sector prospered in general (Copple, 2002). A social negative impact occurred with the loss of many jobs in the agriculture sector (Johnson & Beale, 1998). As of June 1, 2004, the U.S. was still the country that imports the highest amount of beef worldwide (USDA Economic Research Service, 2004a).

Import values decreased in 2003, but beef imports are forecasted to increase 11% in 2004 thanks to strong demand from the American consumer (USDA Economic Research Service, 2004a). Competition among other beef producers and tight U.S. beef supply has increased U.S. beef imports (USDA Economic Research Service, 2004a). Imports of live cattle are estimated to come primarily from Mexico since Canadian live

cattle are still banned from import due to a case of bovine spongiform encephalopathy (BSE) (USDA Economic Research Service, 2004b).

American exports are estimated to drop 83% from 2003 exports levels (USDA Farm Service Agency, 2004b). The United States Department of Agriculture estimates that in 2004, beef exports will be just 17% of 2003 exports, a direct consequence of the impacts caused by one case of BSE found in the state of Washington in December 2003 (USDA Farm Service Agency, 2004b).

The challenges posed by the local beef market will continue affecting, economically and socially, Oregon ranchers and ranchers nationwide, a direct consequence of globalization (Stephenson, personal communication, May, 2004). Nonetheless, cattle and calves are one of the state's top commodities (USDA Oregon Agricultural Statistics Service 2002-2003, 2003). As of January 30th, 2004, Oregon's cattle inventory was 1,440,000 head (USDA Oregon Agricultural Statistics Service, 2004).

Land conservation practices and livestock ranching

In 2002, the Sierra Club Oregon Chapter launched a conservation campaign to end livestock grazing on public lands (The Sierra Club, 2002). Wuerthner (1994) argues that livestock production, including irrigation for pasture and haying, has been more harmful to western regions than "all the subdivisions, malls, highways, and urban centers combined" (1994, p. 905). Wuerthner (1994) acknowledges the impact caused by exurban development on the landscape but states that unlike livestock ranching, urban sprawl impacts are centralized, land intensive, and restricted to a small area. Like Wuerthner (1994), Fleischner (1994) argues that livestock not only impacts native ecosystems but also disrupts the "fundamental ecosystem functions of nutrient cycling and succession" (Fleischner, 1994, p. 629).

These pressures demonstrate the current challenges ranchers face when managing their livestock operation. While certain livestock management practices can cause ecosystem damage, such as water pollution and soil erosion, the business of cattle ranching can also take place without detrimental effects to the resource and the habitat of

threatened and endangered species (USDA & USFS, 2004). Studies have shown that native plants and faunal biodiversity may be better maintained on ranches and protected areas than where urban sprawl has occurred (e.g., Maestas et al., 2001). Maestas et al. (2001) also found that properties in their study area conserved biodiversity as well as, or better than, equivalent protected areas.

In addition, research on rangeland vegetation management has demonstrated that the use of livestock as a grazing control tool can efficiently manage for certain species of noxious weeds (Rangelands West, 1990). Noxious weeds generally carry one or more of the following characteristics: they are aggressive and difficult to manage; they are poisonous and toxic; they are parasitic and carry or host serious insects or diseases that are native or new to or not common in the region (USDA & USFS, 2004). Rangeland health management through grazing can be an efficient tool to minimize and control the proliferation, infestation, and germination of different noxious weed species. Positive results on weed stock reduction were found utilizing sheep and cattle (Institute of Grassland and Environmental Research, 2003); goat (Owsley, 1999; Williams, 2002); cattle (USDA & USFS, 2004); cattle, sheep, and goat (Nelson, 2003); and sheep (Oregon State University Extension Service, 2003).

Such mitigation efforts to reduce grazing impacts on rangelands can be adopted by Oregon ranchers. Alternatives to reduce livestock impact on rangeland include, but are not limited to fencing off animals from riparian zones, rotating graze patterns on water intake regions, and respecting the carrying capacity of grazed fields (USDI BLM, 1997). Fencing, however, is an expensive mitigation alternative and is financially unfeasible for many ranchers. This cost, among others, can be covered by restoration and conservation programs sponsored by land easements.

Impacts of urban sprawl on Oregon ranchers

Today, rural areas throughout the western states are being affected by urban sprawl, outmigration of youth, population growth, large lot development, globalization, market volatility (USDA Natural Resources Conservation Service, 2002), lack of employment opportunities (Johnson & Beale, 1998), and an overall lack of stable

infrastructure (Lewis, 1998). Despite differences in worldviews, environmentalists, ranchers, and farmers agree upon the detrimental consequences of urban sprawl on agricultural lands and on the uncertain future of open lands in general (Huntsinger & Hopkinson, 1996).

Exurban development, also called urban sprawl, is defined as an area of low density that is dependent on car transportation and is developed outside the general city limits and employment areas (Knight, 1999). Urbanization brings subdivisions, roads, and other forms of development (Beatley, 2000) to what once was open and undeveloped land.

According to the American Farmland Trust (2001), more than six million acres of the country's agricultural land were converted to developed use between 1992 and 1997, a 51% increase from the reported average annual conversion documented between 1982 and 1992 (American Farmland Trust, 2001). While Oregon was not among the states losing the most prime farmland between 1992-1997 (American Farmland Trust, 2002), 293,400 acres of resource lands were converted to nonagricultural practices from 1987 to 1997 (USDA Natural Resources Conservation Service - Oregon, 2003).

Urban sprawl is also the result of regional factors. Population growth in general is one of the major forces behind urban sprawl. From 1982 to 1997, the U.S. population grew 17% and the urbanized land grew 47% (American Farmland Trust, 2002). Walker (2003) argues that the expansion of urban real estate markets, the relocation of regional labor forces, and the proliferation of high-tech industries help explain the exurban movement witnessed in the American west. Exurban migration into rural areas not only causes changes to the physical residential structure of an area but also results in changes to the species that inhabit and/or use an area (Knight, 1999). Such changes only increase challenges to management for native species on private lands (Knight, 1999).

"Urban sprawl is the second leading cause of the decline in federally listed threatened and endangered species" (Maestas et al., 2001, p. 1). Land development and urbanization can also cause fragmentation of agricultural land and forestland and loss of prime agricultural land and wildlife habitat (USDA Natural Resources Conservation Service - National Resources Inventory, 2001). In ranchlands, land conversion can be

causing a simplification of biodiversity, favoring species that thrive in association with humans over those that are more sensitive to human contact (Knight, 2002).

On social and cultural levels, exurban migration exerts pressure on private landowners who are not able to continue ranching and farming due (but not limited) to an increase in land values (Nelson, 2002), an increase and/or change in demographics, and/or a loss of the traditional cultural setting (Knight, 1999). The quality of life of rural areas is one of the main forces behind the increasingly flow of urban residents to rural areas (Power, 1996). Unfortunately, the same qualities that attract urban residents to move to rural areas can cause social and ecological edges that eventually diminish the rangeland ecosystem (Huntsinger & Hopkins, 1995).

In Oregon, pressures imposed by urban sprawl and urbanization can lead to a loss of already scarce pastureland and rangeland, especially on prime farmland west of the Pacific Crest Trail, where land allocated by farms and ranches are pressured from significant population growth (Oregon Blue Book, 2003). Diversification into agritourism, could minimize the economic and social constraints imposed by urban sprawl and population growth.

Agritourism and sustainability

Sustainability indicators “can help to measure and calibrate progress towards sustainable goals. They can provide early warning, sounding the alarm in time to prevent economic, social and environmental damage” (The United Nations, 2001, p. 2). In describing the role of sustainability indicators, Hetch (2003) noted that these indicators go beyond simple measures of environmental quality or economic well-being because they capture tradeoffs among social goals, such as standard of living, environmental protection, health, and equity (Hetch, 2003).

Sustainability indicators are also being used in the management of small-scale businesses. Kelly and Moles (2002) emphasized that to be effective at both local and regional levels, sustainability indicators need to mirror a community’s needs and wants and accommodate available resources to achieve the expected future goals. For

indicators to be effective at a small scale they need to address the needs, wants, and goals of the landowner.

Sustainability can be generalized in terms of land use practices, such as grazing patterns, water intake, carrying capacity, and farming operations (e.g., seed species used, weed/insect control methods, and harvesting methods). Such concepts can be better understood by the public, land officials, and ranchers because they address the common idea of using the land in a sustainable manner, minimizing habitat deterioration, and providing expected yield for a sound livestock production. However, such information is very much site-specific and generalizations should be treated with caution.

Social indicators must be considered. Benjamin (1994) analyzed the influence of agritourism on off- and on-farm work by both husband and wife on diversified French farms. Benjamin (1994) found that, not surprisingly, diversification activities and off-farm labor supplements farm income. Evans and Ilbery (1989) speculate that in order to generate sufficient funds to develop and implement rural recreation opportunities, family members may take off-farm jobs. As the recreation business is implemented, off-farm jobs compete for time and labor. One theory is that once agritourism occurs, off-ranch jobs will yield to on-ranch jobs. While this appears to be the case with operations that focus solely on hunting and fishing fees, it does not consider extensive operations that include lodging and guiding services.

Regardless of education level, gender, and age, ranchers and their families are most likely to not adopt an off-ranch job if there is sufficient income generated on-site that allows for the ranching operation to continue taking place. On the other hand, off-ranch jobs can help ranchers cope with economic hardship. Both associations are examined in this study.

Agritourism may be a viable alternative to off-ranch jobs. Off- and on-ranch jobs, along with conservation easements, are used as indicators to analyze for sustainable land use practices and economic sustainability via family employment. Conservation easements and agritourism can take place simultaneously despite differences in land use regulations and development. Agritourism and conservation easements can be used by ranchers to minimize economic, social, and operational constraints imposed by economic

pressure (e.g., low market price for livestock) preserving both the social and the natural environments.

Sustainability indicators used in this research were the total percentage of area of conservation easement (either open or closed to the public); annual household gross income; labor distribution of family members and non-family members working in agritourism (full-time and part-time, year round and seasonal); labor distribution of family members and non-family member working on the ranch (full-time and part-time, year round and seasonal); labor distribution of family members working off ranch (full-time and part-time, year round and seasonal); and income sources.

Sense of place and place attachment

Sense of place and place attachment are terms usually associated with the emotional, cognitive, and behavioral components of one's sense of belongingness to a leisure or recreational activity and/or tourist location (Stokowski, 2002). Nonetheless, such emotions can and are associated with non-recreational locations. Sense of place is classified as a concept that "implies a certain distance between self and place that allows the self to appreciate the place" (Tuan, 1980, p. 4). Place attachment is recognized as a sense of belonging between an individual and place (Inalhan & Finch, 2004),

Sense of place and place identity help explain the connections ranching families have to nature. In a study of California ranchers in urban Alameda and Contra Costa counties, Liffmann and others (2000) found that ranching is not done just for financial gain but also because of social factors, values, and attitudes. Ranching is seen as a lifestyle, a way of living, rather than a way of solely generating income. Economists and others describe sense of place, place identity, and place attachment as reasons to keep ranching operations "alive" despite low profit revenues characteristic to the industry (Gribsby, 1980).

CHAPTER THREE

Study area

The study area for this research is the state of Oregon (Appendix A). From a total area of approximately 62 million acres of mostly mountains, valleys, deserts, and forests, farmland totals approximately seventeen million acres while approximately 31 million acres (50.3%) are made up of federal land (USDA National Agricultural Statistics Service, 2002). Private land cover is made of about nine million acres of rangeland (14.9%), about two million acres of pastureland (3.2%), about 845 thousand acres of urban land (1.4%), and about 1.1 million acres allocated for rural transportation, farmsteads, farm structures, field windbreaks, barren land, and marshland. (USDA National Resources Conservation Service, 2000). Farmland includes land used in crop and livestock acreage, in addition to woodland, pasture, land in summer fallow, idle cropland, and land enrolled under the Conservation Reserve Program (CRP) (USDA National Agricultural Statistics Service, 2002). Public lands, industrial lands, lands operated by establishments not qualifying as farms, grazing association lands, and nonagricultural lands are not included in this classification (USDA National Agricultural Statistics Service, 2002). Therefore, statistical data for “farmland” means all those listed above as well as lands used for livestock production.

Ranching operations are found throughout the state, but cattle country is concentrated east of the Cascades mountain range (USDA Oregon Department of Agriculture, 2003). Cattle and calves made up of 49% of the total percentage value of livestock production in Oregon (USDA Oregon Agricultural Statistics Service 2002-2003, 2003). There are approximately 41,000 farms in Oregon (USDA National Agricultural Statistics Service - Oregon, 2002). Farms are classified as “any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold” (USDA National Agricultural Statistics Service, 2002, p. 1).

Study population

I examined what motivates Oregon ranchers to move beyond their comfort levels to adopt agritourism by means of a mailback survey. The questionnaire was based on the one originally developed by Nickerson, Black, and McCool (2001) for Montana ranchers and farmers. The main differences between the two studies are population source and population type with respect to agricultural activity employed. In Montana, the sample group was formed by respondents who had participated in recreation workshops, were listed in the 1996-1997 Montana Travel Planner, and/or were members of the Montana Ranch Vacation Association. Oregon respondents were sampled from the 2002 membership list of the Oregon Cattlemen's Association (OCA). The Montana study focused on farmers and cattle ranchers, while the Oregon study focused only on cattle ranchers. Accordingly, some adjustments to the questionnaire were made to better fit with the sample population. Examples of changes that took place refer to the barriers and motivations to diversify into agritourism, land use allocation, popular agritourism activities, income sources, and labor distribution.

The limitations of using the OCA as the source of the study population are associated with the small membership numbers in comparison with the total number of ranchers found in Oregon. Therefore, there is a risk of not accurately representing Oregon's ranchers in terms of both agritourism and ranching activities. Nonetheless, due to the lack of other sources of information regarding ranchers in Oregon, the OCA is the most appropriate source given its 80-year history in Oregon. The findings, therefore, are estimates and the provided suggestions are solely based on the data gathered from the OCA members, rather than from the total population of Oregon ranchers.

In 2002, the OCA had 2200 members with 1540 ranchers from Oregon, California, and Washington. I drew a random sample of 400 ranch operators from the total population of 1490 Oregon ranchers using a random number table. I stratified Oregon ranchers by their location in reference to the Pacific Crest Trail (PCT). This distinction is very important due to significant differences found on demographic, topographic, and climatic differences between the east and west regions of the Pacific Crest Trail. There were 1015 ranchers east of the PCT and 475 ranchers west of the PCT.

I randomly selected 276 ranchers east of the PCT and 124 ranchers west of the PCT as the sample population to examine the possibility of finding regional distinctions between ranchers and between agritourism characteristics based upon differences in topographic, climactic, and ranching practices. The unit of analysis is cattle ranchers.

Methods

Unlike the Montana study, which examined farmers and ranchers, the study population for this research was based on cattle ranchers only. Because of this distinction, necessary alterations in the questionnaire were implemented to address the needs, the characteristics, and the motivators of Oregon ranchers in adopting agritourism. Some of the alterations were: type of agritourism activity offered and desired to be implemented, size of the property, and proposed activities from a rancher's point of view.

The length of the survey was extended to nine pages (Appendix B). The questionnaire included 22 questions, both closed- and open-ended, to solicit information about both agritourism and livestock operations. Questions that focused on demographic information asked about the number of years ranching; size of the ranch in number of mother cows; motivations to operate an agritourism operation; land use allocation by category; gross income; and labor distribution among family and non-family members. Questions that focused on agritourism activities asked about the agritourism activities offered; the number of years in agritourism; the motivations in adopting agritourism; the barriers in adopting agritourism; the perceived popular agritourism activities; the visitor origins; and agritourism marketing tools. Questions that focused on sustainability indicators asked about the percentage of acres used for conservation easements open and closed to the public; the gross household annual income; the income sources; family labor distribution on ranch; family labor distribution off-ranch; family labor distribution in the agritourism operation; non-family labor distribution on the ranch; and non-family labor distribution in the agritourism operation. Questions that focused on conservation easements asked about the percentage of acres used for conservation easements open and closed to the public. Respondents were asked to rate the motivations and barriers to

adopting an agritourism enterprise, and their perceptions of the most popular agritourism activities visitors seem to prefer.

The mailback survey was administered according to Dillman's Total Design Method (Dillman, 2000). Surveys were sent in three mailing sessions, consisting of a first mailing with the questionnaire and a personalized letter describing the research, and a self-addressed, stamped return envelope (Appendix C). A reminder postcard was sent to all nonrespondents two weeks after the first mailing (Appendix D). Finally, a third mailing with another letter, a questionnaire, and a return envelope was sent to all nonrespondents one week after the postcard (Appendix E). All three mailing sessions were conducted in two-week intervals beginning June 2003.

Ten questionnaires were replaced by new questionnaires using the same selection procedure developed in the original sample selection. Questionnaires eliminated were then substituted by ranchers from the same region, either east or west of the PCT. In ten instances, the ranchers sampled were not available to complete the survey (i.e., ranch owner had died, the property had been sold, the property was classified as a corporation and/or a feedlot, and/or the property had been used for other purposes outside the ranching business).

A copy of the questionnaire used and frequencies obtained from the gathered data are included in Appendix B.

Data analysis

Data analysis was conducted in two phases. The first phase involved descriptive statistics. The second phase involved inferential statistics to test among cattle ranchers in agritourism, cattle ranchers not engaged in agritourism, and cattle ranchers in both agritourism and cattle ranching operations.

The original data was coded and entered into an SPSS v.10.0 software program. Frequencies were run on all variables. Cross-tabulations, Chi-squares, and ANOVA tests were inconclusive due to small cell sizes, therefore, recoding of variables was conducted, with one exception. The dichotomous variable measuring the success of agritourism operations was not recoded.

- Based on the frequency distributions, the number of years in the ranching business was recoded into three categories (i.e., 1 to 20 years; 21 to 40 years, and more than 40 years).
 - The size of the ranch based on the number of mother cows collapsed into two categories (i.e., less than 200 mother cows and more than 200 mother cows). This change was made because there were too few entries in the category with 300 or more mother cows.
 - Nominal categories of “yes” and “no” substituted for responses to three questions: (1) adopting (or not adopting) an agritourism operation; (2) adopting (or not adopting) a conservation easement not open to the public; and (3) adopting (or not adopting) a conservation easement open to the public. This allowed me to differentiate for analysis purposes.
 - The nominal categories of “yes” and “no” for adopting (or not adopting) an agritourism operation were used to represent the number of ranchers who operated an agritourism activity at the time of the study.
 - The gross household income variable was collapsed into three categories (i.e., less than \$50,000; \$50,000 - \$100,000; and more than \$100,000). This change was made because there were too few entries in the categories with more than \$200,000.
 - On Question 7, collapsed “extremely important” and “quite important” categories. On Question 8, collapsed “extremely restrictive” and “quite restrictive” categories. On Question 9, collapsed “very dissimilar” and “somewhat dissimilar” categories. On Question 10, collapsed “extremely popular” and “moderately popular” categories.
 - Based on the frequency distribution, “part-time” and “full-time” seasonal workers not analyzed for significance. This decision provided a more accurate estimate of the off- and on- ranch labor positions used in the state.
- Cross-tabulations, Chi-Squares, Fisher’s Exact, and Cochran-Mantel-Haenszel tests were then conducted on the recoded data. ANOVA tests could not be run

because the database contained categorical variables rather than continuous data as in the original data set. Inferential statistics were employed using SPSS and S+ software. Bivariate correlation analysis (Pearson's Correlation Coefficient) was used to test the strength of association between selected variables using Excel, SPSS v. 10.0, and S+ software. Significance is reported at $p\text{-value} \leq 0.05$ level, unless otherwise noted. The results, unless noted, are based on the recoded database.

CHAPTER FOUR

Of the 187 questionnaires received, 177 were useable questionnaires, for a total response rate of 44%. The response rate for ranchers located west of the Pacific Crest Trail (PCT) was 45% (n=57) and for those east of the PCT it was 44% (n=120). Only 21% of respondents (n=37) operate an agritourism enterprise, and only 10% of respondents (n=18) reported holding a conservation easement. Results from respondents in agritourism (n=37) are reported first. Only significant results are reported here. This information is followed by results for respondents not in agritourism (n=140). Last are results from the entire sample (n=177), which are for respondents who operate an agritourism enterprise and for respondents only in the cattle ranching business. These results are stratified by those east and west of the PCT. Significant values were calculated using Fisher's Exact Test and are based on p-values ≤ 0.05 . Because of the small sample size of respondents in agritourism (n=37), stratification with reference to the Pacific Crest Trail was not implemented. Therefore, the only information provided with reference to stratified data is on ranchers not in agritourism (n=140).

Oregon ranchers engaged in agritourism business

Only 21% (n=37) of respondents indicated they engage in agritourism (Appendix F). Of those, 30% have been in the agritourism business five years or less, for an average of 12 years (Table 2).

Table 2: Number of years in agritourism business (n=37) (Cattle ranchers in agritourism)

Years	Percentage
1 – 5	30%
6 – 10	15%
11 – 20	11%
> 20	8%

H_1 is that agritourism practices are less likely to occur on long established cattle ranches than on newer established cattle ranches. The null hypothesis is that the adoption of agritourism and the number of years cattle ranchers have been in the ranching business are not related. There was not a significant relationship between the number of years in which a rancher has been operating and the adoption of an agritourism enterprise (Fisher's Exact Test, p -value=0.509). Therefore, we fail to reject the null hypothesis that agritourism practices and the number of years cattle ranchers have been in the ranching business are not related.

Fifty-four percent of respondents who currently operate an agritourism activity have been in the ranching business for 30 years or less (Table 3).

Table 3: Number of years in ranching business (n=34) (Cattle ranchers in agritourism)

Years	Percentage
≤ 10	14%
11 - 20	16%
21 - 30	24%
31 - 40	16%
41 - 50	5%
51 - 60	11%
> 60	5%

Almost 60% of ranchers in the agritourism business have a ranching operation with 200 or fewer mother cows (Appendix F). Only 11% of ranchers who offer agritourism have larger ranches (more than 600 mother cows).

Almost 65% of respondents who currently operate an agritourism enterprise have a gross income of \$100,000 or less (Table 4).

Table 4: Gross annual household income (n=33) (Cattle ranchers in agritourism)

Income	Mean
< \$50,000	35%
\$50,000 - \$100,000	30%
\$100,001 - \$150,000	5%
\$150,001 - \$200,000	3%
\$200,001 - \$250,000	3%
\$250,001 - \$300,000	3%
> \$300,000	11%

H₂ is that cattle ranchers who operate agritourism businesses are more likely to have higher income than comparably sized cattle ranches without agritourism. The null hypothesis is that there is no difference in the gross household annual income between cattle ranchers in agritourism and cattle ranchers not in agritourism. There is not a significant relationship between cattle ranchers who operate an agritourism business and gross income (Fisher's Exact Test, p-value=0.067). In addition, no significant relationship was found when comparing agritourism, income, and property size. Therefore, we fail to reject the null hypothesis that there is no gross household annual income differences between cattle ranchers in agritourism and cattle ranchers not in agritourism based on comparable property size (Cochran-Mantel-Haenszel, p-value=0.217).

Most respondents who engage in agritourism still relied on livestock production (84%) for their income (Table 5). Just over 40% of respondents relied on off-ranch income. On average, agritourism contributed only 8% to gross annual income.

Table 5: Gross annual household income by category (n=35) (Cattle ranchers in agritourism)

Activities	Reported sources of income	Mean sources of income
Agritourism	43%	8%
Animal boarding/grazing leases	8%	31%
Extractive activities (e.g., timber)	16%	18%
Livestock production	84%	53%
Land-use leasing	19%	19%
Off-ranch income	43%	48%
Value-added activities	5%	3%

Note: Reported sources of income represent the total percentage of respondents (out of 35 respondents) who have any portion of their income from that activity.

Almost 60% of all ranch land is allocated for grazing, followed by pasture and haying activities (35%), agritourism (28%), and extractive activities (14%) (Table 6). Conservation easement allocations (both open and closed to the public), on average, take up 14% and 10%, respectively.

Table 6: Of the total number of acres owned or privately leased, mean acreage allocated by activity (n=37) (Cattle ranchers in agritourism)

Ranch activity	Mean acreage
Agritourism	28%
Conservation Easement not open to the public	10%
Conservation Easement open to the public	14%
Extractive Activities	14%
Grazing	60%
Pasture and haying	35%
Agritourism	28%
Conservation Easement not open to the public	10%

H₃ is that cattle ranchers who adopt conservation easements are more likely to implement agritourism practices than are those who do not adopt conservation easements. The null hypothesis is that the adoption of agritourism is not related to the adoption of conservation easements. In this study, only 19% (n=7) of the 37 ranches currently employ a conservation easement. There was no significant relationship between agritourism activities and the adoption of conservation easements (Fisher's Exact Test, p-value=1.000). Therefore, we fail to reject the null hypothesis that the adoption of conservation easements is not related to the adoption of agritourism.

Of those who engage in agritourism, most offer working ranch (41%) and fee hunting and fishing (41%) opportunities (Table 7).

Table 7: Agritourism activities offered by respondents (n=37) (Cattle ranchers in agritourism)

Rank	Activity	Percentage
1	Working ranch	41%
1	Fee hunting/Fishing	41%
3	Campground	11%
3	Guiding/Outfitting	11%
5	Horseback riding	8%
5	Bed and Breakfast	8%
7	Dude/Guest Ranch	3%

Oregon ranchers stated that the main reasons to operate an agritourism business are to fully utilize their ranch resources (54%), to capture additional income (51%), followed by fluctuations in the ranch income (41%), and to educate the consumer (41%) (Table 8).

Table 8: What motivates Oregon ranchers to adopt agritourism? (Cattle ranchers in agritourism)

Rank	Motivations to adopt agritourism	Percentage
1	To fully utilize ranch resources	54%
2	Additional income	51%
3	Fluctuations in ranch income	41%
3	To educate the consumer	41%
5	Employment for family members	22%
6	Companionship with guests/users	19%
7	Losing Federal grazing permits	16%
7	To meet a need in recreation/vacation marketing	16%
7	It is an interest/hobby of ours	16%
7	Observed agritourism successes of others	16%

We asked Oregon ranchers which activities visitors seem to prefer. The top five are unguided hunting opportunities (51%), watching wildlife (41%), cattle drives and riding herd (32%), cookouts/BBQs (30%), and followed by guided hunting, horseback riding, and ranch chores (27%) (Table 9).

Table 9: Most popular agritourism activities visitors and guests seem to prefer (n=37) in rank order. (Cattle ranchers in agritourism)

Rank	Most popular agritourism activities	Percentage
1	Unguided hunting	51%
2	Watching wildlife	41%
3	Cattle drive/riding herd	32%
4	Cookouts/BBQs	30%
5	Guided hunting	27%
5	Horseback riding	27%
5	Ranch chores	27%
8	Unguided fishing	24%
9	Camping	22%
9	Family style meals	22%
11	Hiking/nature walks	19%
11	Cabins	19%
14	Children's programs	14%
15	History programs	11%
16	Rafting/canoeing	8%
17	Horseback riding lessons	6%
18	Skeet shooting	5%
18	River float trips	5%
18	Swimming	5%
18	Photo safari	5%
18	Hay rides	5%
18	Guided fishing	5%
23	Cross-country skiing	3%
23	Mountain biking	3%
23	Hot tubs/saunas	3%
23	Gold panning	3%

Major barriers and challenges to the adoption of an agritourism enterprise are concerns about insurance and liability (65%), lack of time (57%), regulations and lack of financial assistance and resources (43%), followed by lack of personnel (41%) (Table

10). Despite these barriers, 51% of respondents revealed that their agritourism operation was a success (Appendix B).

Table 10: Major barriers respondents face in adopting agritourism (n=37) in rank order (Cattle ranchers in agritourism)

Rank	Barriers to adopt agritourism	Percentage
1	Insurance and liability concerns	65%
2	Lack of time	57%
3	Regulations	43%
3	Lack of financial assistance and resources	43%
5	Lack of personnel	41%
6	Lack of agritourism business knowledge	27%
6	Excessive taxation	27%
8	Lack of information (marketing, demand, etc)	24%
9	Lack of social networks with others involved in agritourism	22%
10	Lack of family and/or public support	16%
11	High rate of inflation	14%

H₄ is that agritourism is more likely to occur on cattle ranches where family members hold off-ranch jobs than on cattle ranches where family members hold on-ranch jobs. I speculated that because family members are already benefiting from off-ranch income, a diversification activity, ranching families would be more amenable to agritourism practices as income generators. A significant relationship was found between the number of years respondents have been ranching and family members who work off-ranch part-time year round jobs (Fisher's Exact Test, p-value=0.023). However, no significant relationship was found between the adoption of an agritourism operation and off- (Fisher's Exact Test, p-value=1.000) and on-ranch jobs (Fisher's Exact Test, p-value=0.072). Therefore, we fail to reject the null hypothesis that there is no relationship between the adoption of agritourism and the holding of off-ranch jobs by family members. Nonetheless, almost 84% of respondents who currently operate an agritourism enterprise have at least one family member working on the ranch (Table 11).

Table 11: Labor distribution of family members who work on ranch full-time and part-time, year round and seasonally (n=37) (Cattle ranchers in agritourism)

Labor category	Oregon Ranchers
Respondents who have family members working on the ranch	84%
Have family members working on the ranch full-time year round	78%
Have family members working on the ranch part-time year round	38%
Have family members working on the ranch full-time seasonal	8%
Have family members working on the ranch part-time seasonal	30%

Seventy-three percent of agritourism operators currently have income generated from an off-ranch job (Table 12).

Table 12: Labor distribution of family members who work off ranch full-time and part-time, year round and seasonally (n=37) (Cattle ranchers in agritourism)

Labor category	Oregon Ranchers
Ranchers who have family members working off the ranch	73%
Have family members working off the ranch full-time year round	43%
Have family members working off the ranch part-time year round	28%
Have family members working off the ranch full-time seasonal	5%
Have family members working off the ranch part-time seasonal	5%

Almost 57% of respondents have family members working in the agritourism operation, and just over 24% are both full-time and part-time workers (Table 13).

Table 13: Labor distribution of family members who work in agritourism full-time and part-time, year round and seasonally (n=34) (Cattle ranchers in agritourism)

Labor category	Oregon Ranchers
Have family members working in agritourism	57%
Have family members working in agritourism full-time year round	24%
Have family members working in agritourism part-time year round	24%
Have family members working in agritourism full-time seasonal	5%
Have family members working in agritourism part-time seasonal	19%

Almost 49% of respondents who operated an agritourism enterprise employed non-family members on their ranches (Table 14). Almost 41% percent of the labor hired is hired year round.

Table 14: Labor distribution of non-family members who work on ranch full-time and part-time, year round and seasonally (n=36) (Cattle ranchers in agritourism)

Labor category	Oregon Ranchers
Have non-family members working on the ranch	49%
Have non-family members working on the ranch full-time year round	30%
Have non-family members working on the ranch part-time year round	11%
Have non-family members working on the ranch full-time seasonal	8%
Have non-family members working on the ranch part-time seasonal	19%

Almost a quarter of respondents who engage in agritourism rely on non-family labor (Table 15). No full-time year round employment of non-family members was reported among respondents.

Table 15: Labor distribution of non-family members who work in agritourism full-time and part-time, year round and seasonally (n=34) (Cattle ranchers in agritourism)

Labor category	Oregon Ranchers
Have non-family members working in agritourism	24%
Have non-family members working in agritourism full-time year round	0%
Have non-family members working in agritourism part-time year round	11%
Have non-family members working in agritourism full-time seasonal	5%
Have non-family members working in agritourism part-time seasonal	3%

Gross annual household income is significantly related to the hiring of non-family members who work part-time, year round (Fisher's Exact Test, p-value=0.051).

Respondents who earn more than \$100,000 annually are more likely to hire part-time, year round non-family workers (33%) than respondents who earn \$50,000 to \$100,000 (9%) or less than \$50,000 (0%).

Oregon cattle ranchers not in agritourism

The average number of years respondents have been in the ranching business is 35 years (Appendix G) and 50% of the respondents have been in operation 30 years or less (Table 9). Fewer ranchers west of the PCT have been in operation for more than 50 years (11%) than those who run cattle east of the PCT (21%).

Table 16: Number of years in the ranching business (n=137) (Cattle ranchers not in agritourism)

Years	All respondents (n=137)	East PCT (n=91)	West PCT (n=46)
≤ 10	8%	8%	9%
11 - 20	17%	15%	20%
21 - 30	25%	22%	31%
31 - 40	17%	20%	11%
41 - 50	16%	14%	20%
51 - 60	12%	14%	7%
> 60	6%	6%	4%

Just over 73% of respondents operate a ranch with less than 200 mother cows (Appendix G). Most of the respondents located west of the PCT own less than 200 mother cows (96%), versus 60% of ranchers east of the PCT (Appendix G).

Almost 50% of all respondents have an annual gross household income of \$100,000 or less (Table 17).

Table 17: Gross annual household income (n=111) (Cattle ranchers not in agritourism)

Income	Mean
< \$50,000	26%
\$50,000 - \$100,000	23%
\$100,001 - \$150,000	14%
\$150,001 - \$200,000	4%
\$200,001 - \$250,000	6%
\$250,001 - \$300,000	1%
> \$300,000	4%

Most respondents relied on livestock grazing (79%) for their income (Table 18), although on average, livestock grazing only contributed to 48% of their gross annual

income. About a third (39%) relied on off-ranch income sources, although on average, it contributed to 59% of their gross annual income.

**Table 18: Reported gross annual household income by category (n=119)
(Cattle ranchers not in agritourism)**

Category	Reported sources of income	Mean income sources
Agritourism	N/A	N/A
Animal boarding/grazing leases	4%	6%
Extractive activities (e.g., timber)	10%	20%
Livestock production	79%	48%
Land-use leasing	6%	21%
Off-ranch income	39%	59%
Value-added activities	1%	10%

Note: Note: Reported sources of income represent the total percentage of respondents (out of 119 respondents) who have any portion of their income from that activity.

Conservation easements open to the public account for 33% and conservation easements closed to the public account for 33% of ranch land (Table 19).

Table 19: Total number of acres owned or privately leased (average percentage of acres used) (n=135) (Cattle ranchers not in agritourism)

Ranch Activity	Mean acreage
Grazing	60%
Pasture and haying	40%
Agritourism	N/A
Conservation Easement open to the public	33%
Conservation Easement not open to the public	33%
Extractive Activities	30%

Out of 125 Oregon ranchers, 87% are likely to employ family members (Table 20). About two thirds of family members work full-time, year round and one-third work part-time. Only 5% of respondents have family members working full-time seasonally. Most work part-time seasonal jobs.

Table 20: Labor distribution of family members who work on ranch full-time and part-time, year round and seasonally (Cattle ranchers not in agritourism)

Labor category	Oregon Ranchers (n=125)	Ranchers east of the PCT (n=81)	Ranchers west of the PCT (n=44)
Respondents who have family members working on the ranch	87%	85%	91%
Have family members working on the ranch full-time year round	66%	68%	64%
Have family members working on the ranch part-time year round	34%	32%	38%
Have family members working on the ranch full-time seasonal	5%	4%	6%
Have family members working on the ranch part-time seasonal	15%	10%	26%

Almost two thirds of respondents have an off-ranch income either part-time or full-time, year round or seasonal (Table 21).

Table 21: Labor distribution of family members who work off ranch full-time and part-time, year round and seasonally (Cattle ranchers not in agritourism)

Labor category	Oregon Ranchers (n=123)	Ranchers east of the PCT (n=80)	Ranchers west of the PCT (n=43)
Ranchers who have family members working off the ranch	65%	63%	70%
Have family members working off the ranch full-time year round	44%	39%	55%
Have family members working off the ranch part-time year round	20%	19%	21%
Have family members working off the ranch full-time seasonal	4%	3%	4%
Have family members working off the ranch part-time seasonal	2%	1%	2%

Full-time year round off-ranch jobs as an additional source of income are significantly related to the number of years in which a rancher has been in the cattle business (Fisher's Exact Test, p-value=0.007). Of respondents who currently have a full-time year round off-ranch job, 74% have been running cattle for less than 20 years. Of those who have been in the cattle business for more than 20 years but less than 40 years, 42% rely on full-time, year round off ranch work, and of those who have been ranching for more than 40 years, 40% are also likely to do so.

Just over 45% of respondents currently employ non-family members as supplemental labor force on their ranch operation (Table 22). More of the labor force is full-time, year round non-family members (21%), only 6% are part-time year round workers (Table 22).

Table 22: Labor distribution of non-family members who work on ranch full-time and part-time, year round and seasonally (Cattle ranchers not in agritourism)

Labor category	Oregon Ranchers (n=122)	Ranchers east of the PCT (n=80)	Ranchers west of the PCT (n=42)
Respondents who have non-family members working on the ranch	45%	48%	41%
Have non-family members working on the ranch full-time year round	21%	24%	17%
Have non-family members working on the ranch part-time year round	6%	6%	6%
Have non-family members working on the ranch full-time seasonal	3%	2%	4%
Have non-family members working on the ranch part-time seasonal	16%	15%	17%

There was a significant relationship between non-family members full-time year round workers and the size of the property based on the number of mother cows (Fisher's Exact Test p-value=0.000). Of respondents who currently own 200 or fewer mother cows, 87% do not hire non-family workers as additional labor. On contrast, 55% of those who own more than 200 mother cows hire non-family workers as full-time year round employees.

The employment of non-family members as full-time year round workers is directly related to household gross income. Cattle ranchers with higher incomes (more than \$100,000) are more likely to hire non-family workers (35%; Fisher's Exact Test p-value=0.052). Only 14% of those with gross income of \$50,000 or less are likely to hire non-family workers. The employment of part-time, year round family members is also significantly related to gross income. Cattle ranchers earning more than \$100,000 are more likely to hire part-time, year round non-family workers (18%) than are those earning \$50,000 or less (0%, Fisher's Exact Test p-value=0.020).

Oregon ranchers in agritourism and ranchers not in agritourism (All respondents)

The average number of years respondents have been in the ranching business is 34 years (Appendix B) and 54% of the respondents have been in operation thirty years or less (Table 23).

Table 23: Number of years in the ranching business (n=177) (All respondents)

Years	Percentage
≤ 10	11%
11 - 20	17%
21 - 30	26%
31 - 40	16%
41 - 50	15%
51 - 60	10%
> 60	5%

Just over 70% of respondents operate a ranch with less than 200 mother cows (Appendix B). Just over half of all respondents have an annual gross household income of \$100,000 or less (Table 24).

Table 24: Gross annual household income (n=177) (All respondents)

Income	Mean
< \$50,000	28%
\$50,000 - \$100,000	24%
\$100,001 - \$150,000	12%
\$150,001 - \$200,000	4%
\$200,001 - \$250,000	6%
\$250,001 - \$300,000	2%
> \$300,000	6%

Most respondents relied on livestock grazing (80%) for their income (Table 4), although on average, livestock grazing only contributed to 48% of their gross annual income. Just over 40% of respondents relied on off-ranch income sources, although on average, off-ranch sources contributed to 56% of their gross annual income (Table 25).

Table 25: Gross annual household income by category (n=177) (All respondents)

Category	Reported sources of income	Mean income sources
Agritourism	10%	8%
Animal boarding/grazing leases	5%	16%
Extractive activities (e.g., timber)	11%	20%
Livestock production	80%	48%
Land-use leasing	9%	20%
Off-ranch income	40%	56%
Value-added activities	2%	5%

Note: Reported sources of income represent the total percentage of respondents (out of 177 respondents) who have any portion of their income from that activity.

Agritourism contributed to only 8% (n=37) of respondents' gross annual income. Only 10% of respondents (n=18) cited the holding of a conservation easement on their property. On average, 24% of all acres are allocated for conservation easements not open to the public and 26% of all ranching acres are allocated for conservation easements open to the public (Table 26).

Table 26: Of the total number of acres owned or privately leased, mean acreage allocated by activity (n=172) (All respondents)

Ranch Activity	Mean acreage
Agritourism	28%
Conservation easement not open to the public	24%
Conservation easement open to the public	26%
Extractive activities (e.g., timber)	23%
Grazing	60%
Pasture and haying	39%

There was not a significant relationship between the adoption of conservation easements closed to the public and gross income (Fisher's Exact Test, p-value=0.077), size of the property based on the number of mother cows (Fisher's Exact Test, p-value=1.000), the number of years a rancher has been in the agritourism business (Fisher's Exact Test, p-value=0.099), or the number of years a rancher has been in the ranching business (Fisher's Exact Test, p-value=0.099).

No significant relationship was found between conservation easements open to the public and gross income (Fisher's Exact Test, p-value=0.066), size of property based on the number of mother cows (Fisher's Exact Test, p-value=0.696), number of years a rancher has been in the agritourism business (Fisher's Exact Test, p-value=1.000), or the number of years a rancher has been in the ranching business (Fisher's Exact Test, p-value=1.000).

No significant relationship was found between the adoption of conservation easements (either open or closed to the public) and barriers or motivations to adopt agritourism. There is a significant relationship between holding a conservation easement (both open or closed to the public), and the percentage of gross annual household income from land-use leasing (Fisher's Exact Test, p-value=0.000 and p-value=0.032, respectively).

Many respondents (86%) either work on their ranch operation or have at least one family member working on the ranching operation (Table 27).

Table 27: Labor distribution of family members who work on ranch, full-time and part-time, year round and seasonally (n=162) (All respondents)

Labor category	Oregon Ranchers
Ranchers who have family members working on the ranch	86%
Have family members working on ranch full-time year round	69%
Have family members working on ranch part-time year round	35%
Have family members working on ranch full-time seasonal	6%
Have family members working on ranch part-time seasonal	73%

In addition, 67% also have an off-ranch income either part-time or full-time, year round or seasonal (Table 28).

Table 28: Labor distribution of family members who work off ranch, full-time and part-time, year round and seasonally (n=160) (All respondents)

Labor category	Oregon Ranchers
Ranchers who have family members working off the ranch	67%
Have family members working off ranch full-time year round	44%
Have family members working off ranch part-time year round	22%
Have family members working off ranch full-time seasonal	4%
Have family members working off ranch part-time seasonal	2%

There is a significant relationship between the number of years ranching and the income generated from off-ranch jobs (Fisher's Exact Test, p-value=0.006). The longer an Oregon cattle rancher stays in business, the less likely that rancher will seek work off the ranch, and, therefore, the income from off ranch work will also decline.

On-ranch full-time year round positions were found to be significantly related to property size (Fisher's Exact Test, p-value=0.027). On smaller ranches of less than 200 mother cows, family members are more likely to work on the ranch full-time, year round

(Fisher's Exact Test, p-value=0.027). On larger ranches (more than 200 mother cows), more non-family members are likely to work on the ranch (Fisher's Exact Test, p-value=0.000).

Respondents hire non-family members as additional labor employees (46%) and; of those hired, 23% are full-time, year round employees (Table 29).

Table 29: Labor distribution of non-family members who work on the ranch, full-time and part-time, year round and seasonally (n=158) (All respondents)

Labor category	Oregon Ranchers
Rancher's who have non-family members working in the ranch	46%
Have non-family members working on ranch full-time year round	23%
Have non-family members working on ranch part-time year round	7%
Have non-family members working on ranch full-time seasonal	4%
Have non-family members working on ranch part-time seasonal	16%

CHAPTER FIVE

This study is based on one previously conducted by Nickerson, Black, and McCool (2001) which analyzed the motivations of farmers and ranchers in Montana to diversify into agritourism. This study addressed two distinct areas that contribute to cattle ranch diversification: agritourism and conservation easements. The purpose of this study was to examine the motivations of Oregon ranchers to diversify into agritourism and the congruency of agritourism practices with conservation easements, both open and closed to the public. Due to limited studies on agritourism motivations, barriers, and characteristics of enterprises in Oregon, the main goal was to bridge this knowledge gap, providing current information on agritourism in Oregon.

Specific project objectives were to (1) examine sociodemographic characteristics of Oregon ranchers engaged in agritourism; (2) examine the future prospects of agritourism practices on Oregon ranches; (3) determine how the adoption of conservation easement programs relates to the adoption of agritourism practices; (4) examine the role of on- and off-ranch jobs as they relate to agritourism; (5) analyze cattle ranch owners' motivations for adopting agritourism practices; (6) examine the barriers that exist to adopting agritourism; (7) differentiate perceived barriers with real barriers; (8) understand the congruence between what ranchers are offering and what they perceive tourists are looking for in terms of agritourism activities; (9) examine the marketing efforts in the promotion of agritourism operations by Oregon ranchers; (10) examine the capability of using sustainability indicators in agritourism enterprises; and (11) compare results from this study with the results from the study done by Nickerson and others (2001) and by McGehee and Kim (2002). The study tested four hypotheses.

Agritourism and number of years in the ranching business

Ilbery (1991) found that the majority of farmers adopting an agritourism enterprise were “not young new entrants in the industry, but people with considerable farming experience and traditional family farming backgrounds; over 70% are older than 45 and have (had) ‘farming’ fathers” (1991, p. 215). In this study, 46% of respondents in

agritourism have been in the ranching business more than 30 years. There was not however, a significant relationship between the number of years in which a rancher has been operating a cattle ranching business and the adoption of an agritourism enterprise (Fisher's Exact Test, $p\text{-value}=0.509$). Therefore, we fail to reject the null hypothesis that stated that agritourism practices are not related to the number of years a rancher has been in the ranching business. The distribution of the number of years ranching in Oregon was similar to the distribution of years ranching and farming in Montana (Nickerson et al., 2001). Like in the Montana study, more than 40% of respondents have been in the ranching business for more than 30 years.

Examine sociodemographic characteristics of Oregon ranchers engaged in agritourism

In Oregon, individual or family ownership of farms and ranches account for 88% of the total number of farms and ranches in the state (USDA National Agricultural Statistics Service, 2002). Unlike the Montana study, which found that the great majority of respondents had large properties, approximately 60% of Oregon respondents had small properties as measured in mother cows (e.g., they owned less than 200 mother cows). The USDA reports that 94% of Oregon farmers and ranchers have small properties (USDA National Agricultural Statistics Service, 2002). This discrepancy can be explained by the fact that the USDA does not differentiate farmers from ranchers. The USDA National Agricultural Statistics Service defines farms "any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold" (USDA National Agricultural Statistics Service, 2002, p. 1).

On average, of the total number of acres owned or leased, 60% was used for grazing purposes, a higher percentage than the state average (35%) (USDA National Agricultural Statistics Service, 2002). Land allocation under conservation easements was 24% (open and closed to the public) and 28% was allocated for agritourism purposes. Examples of other land use allocations were given by the respondents when asked to provide the name of the activity implemented in addition to those cited on the relevant question. Almost 19% of the average total number of acres owned or privately leased was allocated for other land use purposes, such as "grass and seed crop" and "timber."

Almost 65% of respondents earned a gross annual household income of \$100,000 or less. On average, 48% of the gross annual household income comes from off-ranch income sources, followed by livestock production, which is responsible for, on average, 53% of ranchers' gross annual household income. Other sources of income, such as "farming" and "hay production" accounted for an average of 46% of the ranchers' gross annual household income. Dependence on off-ranch income as a supplemental source of income supports previous research on alternative income generation sources on agricultural business, such as off-ranch job opportunities (Evans & Ilbery, 1989; Nickerson et al., 2001).

Only 14% of all respondents say that no family members work on the ranch, including the respondent. The average number of full-time and part-time year round, and full-time seasonal workers is two employees. The average number of part-time seasonal workers is four workers. The need to hire more workers seasonally may be because of more intense ranch activities during specific times of the year, such as during branding, vaccination, and sale of animals.

Off-ranch income is sought by 68% of respondents. On average only one family member works full-time or part-time year round. On average, only two family members work seasonally. Just over 20% of ranchers work, or have at least one family member working, in the agritourism enterprise. The average number of full-time year round employees is two individuals as is the number of part-time seasonal workers. Both part-time year round and full-time seasonal employment periods have, on average, one family member working in agritourism.

Half of the respondents employ non-family members as additional labor on their ranch. On average, three full-time and five part-time year round non-family members are employed as additional labor, while only one, on average, is employed both part-time and full-time seasonally. About a fourth of respondents employ non-family members as additional labor in their agritourism operation. Part-time, both year round and seasonally, account for the highest number of employees (on average, three employees per ranch). The employment of additional part-time labor may be because ranchers are using their working ranch for their agritourism operation, an activity that requires direct involvement

from the rancher and more individuals to interact with the visitors. Nonetheless, family members could be providing such assistance instead of non-family members. As shown, on average, more non-family members work in agritourism than do family members. This difference may be because as one respondent said, “I’m old. 81. Wouldn’t be able to.” Another respondent wrote, “age and health” prevent them from participating in agritourism. For others, it may be due to physical handicap, or because family members “are not interested.” On the other hand, agritourism may offer the opportunity to keep the ranching business – and the ranching culture – alive. As one respondent noted, “our lifestyle is at risk of extinction, the skills are not learned overnight and we have taught our children the skills, but we have to tell them that the ranch may not be here much longer because of outside pressure.”

Further research could look more specifically at family labor distribution by gender, age, and number of family members involved. Nevertheless, this study supports previous research (Sharpley, 2002) that agritourism is providing additional employment for non-family members; thus, agritourism may be providing additional labor opportunities for those in the local communities.

While it appears that agritourism practices in Montana are more pervasive (63% operate an agritourism business) compared to Oregon practices, this difference may be due to the population sampled. In the Montana study, the sample population consisted of ranchers who participated in recreation workshops, were listed in the 1996-1997 Montana Travel Planner, and/or were members of the Montana Ranch Vacation Association (Nickerson et al., 2001). In this study, we had no way to cross reference the affiliations of cattle ranchers with recreation, travel, or vacation associations, so the sample was drawn solely from members of the Oregon Cattlemen’s Association.

Examine the future prospects of agritourism practices on Oregon ranches

Oregon ranchers already engaged in agritourism are closely divided on the nature of the managerial duties of agritourism. Just over a third of respondents indicated that the managerial duties of an agritourism enterprise are similar to the managerial duties of their ranch operation. Almost a third indicated that they are dissimilar. A partial explanation

of this effect may be that Oregon ranchers see fewer differences in managing ranch-dependent agritourism enterprises like cattle drives and ranch chores and perceive managerial challenges in agritourism activities that are not ranch-dependent (e.g., wildlife viewing, hiking, camping).

In deciding whether to engage in an agritourism business, ranchers may be persuaded by the fact that wildlife viewers pay on average \$450 per day for the privilege, and hunter and anglers spend \$37 and \$30 per day, respectively (USDI & USDC, 2003). These values are based on the costs to purchase equipment, lodging, transportation, and food, among others. For some ranchers, the financial benefits of agritourism may surpass the barriers imposed by the operation.

Just over two-thirds of Oregon agritourism clients are repeat visitors, and 72% are Oregon residents, so the market is already well established. In a study of 1,300 U.S. adults, the Travel Industry Association of America (TIAA) found that 43% of rural travelers heard about the destination from friends or relatives (TIAA, 2001). Oregon ranchers rely on family, friends, and acquaintances of past guests and visitors as their agritourism clientele. This association between rancher and acquaintances of past guests emphasizes the importance of word-of-mouth marketing and customer satisfaction. It also points out their lack of marketing skills. In fact, respondents stated that lack of agritourism business knowledge, lack of marketing information, and lack of social networks with others who are involved with agritourism are additional barriers to diversify into agritourism. Such limitations were also found by Clarke (1996) among British farmers and ranchers regarding barriers to agritourism diversification.

Oregon respondents more often provide working ranches and fee hunting and fishing opportunities, while in Montana, where respondents included ranchers and farmers, the top opportunities offered were undifferentiated guiding/outfitting and dude ranches (Nickerson et al., 2001). The selection of guiding and outfitting may be because of insurance and liability concerns when adopting an agritourism operation. Liability obligations are passed from the rancher to the outfitter or guide when they are the ones who provide the agritourism activity.

In Virginia, where respondents also included ranchers and farmers, farming opportunities such as picking your own produce, farm markets, and roadside stands predominated (McGehee & Kim, 2002). Therefore, despite geographic and demographic differences, as well as differences in the cultural backgrounds of ranching/farming operations, similar patterns may exist in the development and implementation of agritourism.

The potential of agritourism to enhance the economic welfare of ranchers should not be underestimated, but an agritourism enterprise is not suitable for every situation. Strevens (1994) notes that “diversification is not for everybody and, rather than start something new, many farmers are better advised to stick to what they know best and try to manage their farms better” (Stevens, 1994, p. 52). Nevertheless, tourism is a \$6.3 billion dollars industry in Oregon, and one of the state’s major sources of revenue (Oregon Tourism Commission, 2003). It generates almost 90,000 direct jobs statewide. Even though the tourism industry overall has been showing slow growth the past few years, Oregon’s natural resources continue to draw visitors. In 2001, almost two million Oregonians went fishing, hunted, or watched wildlife (USFWS, 2003). Wildlife watching in Oregon generated \$2.1 billion dollars in revenues, followed by fishing (\$602 million) and hunting (\$365 million) (USDI & USDC, 2003).

Agritourism and gross annual household income

Consistent with prior research on agritourism (Frederick, 1992; Ilbery, 1991; Kastenholz, 1999; McGehee et al., 2002; Murphy, 1995; Nickerson et al., 2001; Sharpley, 2002; Weaver & Fennell, 1997), respondents stated that the generation of additional income was a main motivation to diversify into agritourism. In this study, however, despite having additional income as one of the main reasons to diversify, no significant relationship was found when comparing gross annual household income and comparably sized cattle ranches among those in agritourism and those not in agritourism (Cochran-Mantel-Haenszel, $p\text{-value}=0.217$). Therefore, we fail to reject the null hypothesis that there is no difference in gross annual household income between cattle ranchers in agritourism and cattle ranchers not in agritourism in reference to comparably

sized cattle ranches. Ranching income is not related to agritourism for this group of Oregon ranchers.

This finding supports Putzel's (1984) research, where farmers and ranchers relied primarily on agricultural production for income and agritourism was an income supplement. McInerney and Turner (1991) also found that income generated from agritourism varied between enterprises and was usually limited. Sharpley (2002) found that agritourism practices generated supplemental income for members of rural communities in Cyprus. Despite profits from agritourism, most were dissatisfied with the limited revenue generated from agritourism. As a consequence, most said "that they would be able to survive without other sources of income" (Sharpley, 2002, p. 240.) Among Oregon ranchers, agritourism profits may not be noteworthy yet, but that may be more a function of time than effort. While 63% of farmers and ranchers in Montana have been in agritourism for ten years or less (Nickerson et al., 2001), 45% of Oregon respondents have been in the agritourism business for ten years or less, with 30% being in agritourism five years or less. (Appendix B). It is reasonable to expect higher incomes over time as ranchers become more familiar with the requirements and operations of their agritourism enterprise.

Agritourism and conservation easements

Income generation is a top motivation to adopt an agritourism enterprise (Ilbery, 1991; McGehee & Kim, 2003; Nickerson et al., 2001; Sharpley, 2002). Financial incentives offered to ranchers for conservation easements sweeten the pot. Further, the adoption of conservation easements helps conserve and protect grasslands and pasturelands from being converted into urban land. There was, however, not a significant relationship between the adoption of conservation easements (either open or closed to the public) and adoption of agritourism (Fisher's Exact Test, p-value=1.000). Therefore, we fail to reject the null hypothesis that there is no relationship between the adoption of agritourism and the adoption of conservation easements.

Determine how the adoption of conservation easement programs relates to the adoption of agritourism practices

In this study, only 19% (n=7) of the 37 respondents in agritourism were enrolled in a conservation easement program. The adoption of conservation easements among ranchers not in agritourism was also small. Only 13% (n=18) of respondents not in agritourism were involved on a conservation easement program (either open or closed to the public) at the time of this study. Results might have been different if there were more respondents involved in agritourism and more respondents enrolled in conservation easement programs. However, the total number of conservation easements being implemented by cattle ranchers is not available. When provided, the USDA uses the term “farm” for both farms and ranches, without segmenting by category. Therefore, without accurately knowing the total number of conservation easements adopted by Oregon ranchers, it is not possible to determine if, in fact, the sample of only seven ranchers is a good representation of Oregon ranchers in agritourism. In addition, because of the lack of differentiation between ranchers and farmers, ranchers may not be adopting more conservation easements in comparison to previous years as the data on “farmers” states (USDA Farm Service Agency, 2004a).

The low involvement of ranchers in conservation easement programs (open and closed to the public) in this study may be because ranchers do not want to lose their land development rights despite the financial and technical benefits offered by land trusts and state and federally sponsored conservation programs. Ranchers in agritourism may also be concerned about adopting a conservation easement because of the land use limitations imposed and because the easement contract is written for perpetuity (Ahr, 2004). Ranchers could also be concerned that by enhancing wildlife habitat they could risk responsibility for endangered species, such as coho salmon (*Oncorhynchus kisutch*) (USFWS, 2004). For example, some livestock activities, such as open cattle grazing along riparian zones, may endanger threatened and endangered species. Ranchers may then be obligated to lease additional land, to purchase more AUMs, or reduce their cattle herd to cope with a decrease in land availability due to land zoning regulations imposed to protect the endangered species. However, such changes in habitat may be important

additions to agritourism or to the implementation of an agritourism enterprise, such as wildlife watching. Oregon ranchers, nonetheless, could consider adopting conservation easements under, for example, easements sponsored by the Conservation Reserve Program (CRP), the Oregon Conservation Reserve Enhancement Program (OCREP), and/or the Grassland Reserve Program (GRP) due to their short-term contract durations (i.e., ten years).

Still, conservation easements can serve as bridges between the adoption of an agritourism activity and traditional ranching activities. For example, under the CRP, recreation activities, such as hunting and fishing, can take place while the easement is in place (Agri-Business Council of Oregon, 2003).

Before implementing an agritourism activity, ranchers should contact the agent responsible for the conservation easement. Use restrictions, for example, are imposed on activities that could impact water quality “by destroying permanent vegetation cover” (Agri-Business Council of Oregon, 2003, p. 61). Furthermore, designated CRP acreage may not be used for recreation facilities such as wildlife containment areas and camping areas. To receive technical assistance ranchers should contact the Natural Resources Conservation Service (NRCS), their local conservation district, or the agent from the land trust that purchased the conservation easement.

Beside the NRCS, other agencies and organizations sponsor conservation easements. In Oregon, 24 land trust organizations (Land Trust Alliance, 2004c) are sources for purchasing land, locating land, or providing information about land to be conserved (Land Trust Alliance, 2004b). Ranchers, in turn, can work either with federal and state agencies or with land trust organizations, which are independent, entrepreneurial organizations, on the implementation of an easement that best suits their needs and requirements.

Agritourism and off-ranch jobs

There was no significant relationship between the adoption of an agritourism operation and off- (Fisher’s Exact Test, p-value=1.000) and on-ranch jobs (Fisher’s Exact Test, p-value=0.072). Therefore, we fail to reject the null hypothesis that no relationship

is found between the adoption of agritourism and family members who hold off-ranch jobs versus on-ranch jobs.

Examine the role of on- and off-ranch jobs as they relate to agritourism

Embacher (1994) stated that when agritourism is adopted among farmers and ranchers there is no need to have off-ranch jobs. In this study, however, there was no significant relationship between the adoption of an agritourism operation and off-ranch jobs (Fisher's Exact Test, $p\text{-value}=1.000$). Seventy-three percent of respondents in agritourism have an off-ranch job, but only 48% of respondents had off-ranch income as one of their gross annual household income sources. This could mean that agritourism is not providing sufficient income for family members to work exclusively on the ranch full-time year round. As reported by both Hjalager (1996) and Opperman (1995), for these ranchers, off-ranch income may be necessary to overcome economic hardship, to support the ranching operation, and to keep the land in family ownership. Any future agritourism success could translate into welcome revenue for Oregon ranchers.

Shaw and Hale (1996) found that family members can be working simultaneously in both agricultural and non-agricultural related tasks. While not measured in this study, it is possible that ranching could be similarly multi-tasking. It is important to note that this interpretation could also be made with regard to on-ranch part-time and full-time work where agritourism operations exist.

Ranchers in agritourism are more dependent on full-time on-ranch jobs than are ranchers who are not in agritourism. Because many agritourism activities require direct involvement with the visitor (e.g., making reservations, leading education programs, guiding horseback trips), family members could find employment on the ranch that would otherwise not be possible without agritourism. Family members may have on-ranch full-time jobs even if the size of the property is small. Small ranches (fewer than 200 mother cows) could be as profitable as large ranches (more than 600 mother cows) if adopting certain agritourism activities, such as bed and breakfast and wildlife watching.

Analyze cattle ranch owners' motivations for adopting agritourism practices

Oregon respondents stated that they are motivated to adopt agritourism in order to fully utilize the ranch resources, to acquired additional income, to compensate for fluctuations in ranch income and to educate the consumer, yet insurance and liability concerns are key barriers to adopting agritourism. The results support findings from earlier agritourism research conducted in Montana (Nickerson et al., 2001) and Virginia (McGehee et al., 2002). All three studies found that additional income and fully utilizing available resources are top motivators for engaging in agritourism, followed by meeting a need in recreation and vacation marketing and concerns about fluctuations in ranch income. One difference among the three studies is that educating consumers ranked fourth in Oregon and third in Virginia (McGehee & Kim, 2002), while only seventh in Montana (Nickerson et al., 2001). As stated by one respondent, "agritourism would have a great positive effect on the general public if they could come and see firsthand how we do business." Agritourism as an educational tool may help to bridge the gap between cattle ranchers and environmental groups regarding the appropriate role of ranching operations on both public and private ranchlands.

Ranch resources are important to those who have adopted and those who have not adopted an agritourism activity. Ilbery (1991) found that farmers and ranchers who offer accommodations as an agritourism activity ranked availability of resources as an important motivations to diversify. In this study, however, fully utilizing the ranch resources was a motivation to diversify into agritourism.

One reason for the high interest in fully utilizing resources may be a result of a growing interest in agritourism in Oregon. In other words, many ranchers may see that their natural resources can become agritourism assets. In addition to the natural resources, ranchers may also be looking into the possibility of utilizing their structural and labor resources as a means to agritourism efficiency in resource allocation. Certainly, a lack of financial assistance/resources was a major barrier to respondents in their effort to develop agritourism.

Examine the barriers that exist to adopting agritourism

When asked why they did not operate an agritourism enterprise, one respondent wrote, “don’t want to deal with people.” Here, a barrier to the adoption of an agritourism enterprise could be the lack of a better understanding about the roots, the purpose, and the many alternatives that agritourism enterprises can adopt based on the rancher’s needs and desires and the available ranch resources (e.g., labor). Or, ranchers may just not want to have strangers recreating in their property. For some ranchers, agritourism, will not be a feasible addition to their livestock operation.

Every agritourism activity requires a level of involvement and resources. The level of involvement can be either direct or indirect and depends upon the agritourism activities offered and resources available.

Direct involvement refers to the involvement between rancher and visitor in which the rancher is actively interacting with guests. Examples of direct involvement in agritourism activities are taking reservations, leading hunting trips, and driving the hay wagon. In these cases, interaction and compromise among visitors and ranchers is required, or the rancher can hire a surrogate. Some ranchers may not adopt an agritourism enterprise because they prefer not to be directly involved with visitors.

Indirect involvement refers to activities where the rancher does not come into direct contact with visitors. An intermediary conducts the business, as in the case where the rancher leases the ranch land use rights to an outfitter/guide in exchange for a wildlife habitat restoration project for an access fee. The outfitter gains exclusive access to a prime game hunting area while the ranching family enjoys the benefits of a restoration project. This type of exchange preserves rancher privacy and ensures there is no interference in the ranching operation.

Differentiate perceived barriers with real barriers

Barriers to adopt agritourism can be perceived barriers or real barriers. Perceived barriers can be overcome through a rancher’s actions. For example, if lack of agritourism business knowledge is seen as a barrier, ranchers need only to acquire more information through workshops. Real barriers are out of the control of the rancher, such as rules,

regulations, and taxes. Although these might not be real barriers, only barriers that are perceived as being real barriers. These barriers can be internal or external (Nickerson et al., 2001). Internal barriers, like perceived barriers, can be minimized by the rancher while external barriers, like real barriers, are beyond the control of the rancher.

Among the top five barriers to diversifying into agritourism, perceived and internal barriers were mentioned more extensively than real and external barriers. However, real and external barriers (e.g., insurance and liability concerns) were the top three barriers to agritourism diversification.

Concerns regarding insurance and liability should not be underestimated. Some agritourism activities can be high-risk activities, and lawsuits resulting from injury may be financially devastating to ranchers. The cost of insurance coverage differs according to the type of activities offered; therefore, a detailed investigation of the liability and insurance needs, costs, and coverage needs to take place prior to adopting an agritourism operation (Agri-Business Council of Oregon, 1998). To minimize potential problems, ranchers should work with an insurance representative to review all aspects of the agritourism adopted (Agri-Business Council of Oregon, 1998; Kuehn et al., 1998). This precautionary measure can prevent future liability problems.

Challenges imposed by regulations and permits (Nickerson et al., 2001), building permits and zoning/signage restrictions (Cox & Fox, 1991), and land-use planning controls (Ilbery, 1991) were some of the main external and real barriers for farmers and ranchers to diversify into agritourism. In this study, rules, regulations, and legal regulations ranked third among respondents. One respondent wrote there were “too many rules and regulations and environmental issues involved with having tourists on private property.” Many rules and regulations imposed on ranchers who want to develop a new enterprise can be overwhelming.

Regulations and permits are required for different businesses, including the business of an agritourism enterprise (Agri-Business Council of Oregon, 2003). Ranchers should be aware of the regulations regarding zoning, fire and building codes, health regulations, and agricultural and safety laws (Agri-Business Council of Oregon, 2003; Kuehn et al., 1998). Information regarding regulations and permits at local,

county, state, and national levels can be acquired from fire and building code officials, health departments, and zoning officers. It is important to note that not all regulations and permits are required in all agritourism operations; therefore, some ranchers may chose operations that require fewer requirements to be implemented if liability is a concern. A good hands-on workbook distributed by the Agri-Business Council of Oregon provides information for ranchers who are considering an agritourism enterprise.

Sharpley (2002) found that if barriers imposed by limited financial and technical support were minimized, agritourism could achieve greater success in the future. In this study, just over 43% of respondents stated “lack of financial assistance and resources” was a barrier. If respondents interpreted “lack of financial assistance and resources” as lack of financial support from government, an external and real barrier, ranchers can look for financial assistance and financial support through different government sponsored loan programs, especially programs sponsored by the Oregon Economic and Community Development Department (OECDD) (Agri-Business Council of Oregon, 2003). Some of the programs sponsored by the OECDD are the Oregon Business Development Fund, the Capital Access Program, the Oregon Entrepreneurial Development Loan Fund, the Oregon Credit Enhancement Fund, the Industry Development Assistance Statewide Industry Development, and the Regional/Rural Investment Program (Agri-Business Council of Oregon, 2003). Each program addresses different needs. Ranchers should contact their regional OECDD department office for detailed information on how to acquire loans and technical assistance and support.

If respondents interpreted “lack of financial assistance and resources” as lack of structural resources (perceive and internal barrier), other forms of agritourism activities could be implemented. For example, ranchers who want to offer lodging for their guests could obtain financial assistance to restore and/or to add new structures on the property from government sponsored loan programs, such as the ones sponsored by the Oregon Economic and Community Development Department (OECDD) (Agri-Business Council of Oregon, 2003). However, this barrier can be a real barrier if the rancher is not permitted to build additional structures on the property because, for example, a conservation easement contract prohibits implementation of a physical structure on the

property. Ranchers can alter their plans for this type of agritourism activity or contact their conservation easement agent for a change to their contract.

Ranchers may improve their ranch condition into a more suitable location for agritourism activities by clearing trails that could be used for hiking, horseback trips, and mountain biking; installing an artificial pond for fishing, swimming, canoeing, and motorboating activities; and introducing game animals that could attract wildlife watchers and hunters.

If respondents interpreted “lack of financial assistance and resources” as lack of natural resources, such as riparian zones that are habitat for key wildlife species involved in the agritourism activity, the adoption of conservation easements could be an alternative. Most conservation easement programs, however, restrict structural development. Therefore, if there is also a need for structural resources in addition to natural resources, conservation easements may not be the best alternative. Ranchers should carefully examine their motivations to adopt a conservation easement if considering implementing an agritourism enterprise.

Lack of personnel is an internal and perceived barrier. Lack of personnel may be mitigated by the hiring of additional labor (e.g., family or non-family members) or by employing family member as volunteers. Family employment can work as a motivation to diversify and as an attraction to visitors because of the family operation character (Agri-Business Council of Oregon, 2003). Family members can also work as non-paid workers. This type of labor can be important to ranchers who are initiating the operation and have limited financial resources available.

If hired labor is required, training on agritourism may be required. In addition, insurance and liability issues may become a concern when involving visitors with ranch workers. Ranchers may not be able to hire labor (non-family or family members) because of limited available financial resources. This barrier can be mitigated through state and federal support programs, such as the Oregon Economic and Community Development Department (OECD) (Agri-Business Council of Oregon, 2003).

Understand the congruence between what ranchers are offering and what they perceive tourists are looking for in terms of agritourism activities

When asked what most popular agritourism activities visitors and guests seem to prefer, Oregon ranchers ranked unguided hunting and watching wildlife as the top two activities, followed by cattle drive/riding herd and cookouts/BBQs. It is important to note that the top two activities, fee hunting and fee fishing and wildlife watching, are activities not tied to ranching, and they can take place without interfering with the ranching routine. Also, both require healthy habitats to take place, which is an incentive to the adoption of habitat restoration programs, such as conservation easements. Despite being recognized as a very popular activity, only one respondent actually provided wildlife watching opportunities. Potential exists for those whose ranchland is suitable for wildlife watching or for those whose land could become suitable with habitat restoration programs through implementation of a conservation easement.

Examine the marketing efforts in the promotion of agritourism operations by Oregon ranchers

Some respondents stated that family/friends/acquaintances of past guests/visitors provided, to their best knowledge, information about their agritourism operation to other visitors. Marketing and promotion of their agritourism enterprise via other approaches, such as the Oregon Travel Planner, Oregon travel website, tourism books on the topic, the Dude Rancher's Association, and by travel agents was nonexistent. Unfortunately, Oregon is not alone when it comes to needing additional marketing and promotion support for agritourism entrepreneurs (Cox & Fox, 1991; Ilbery, 1991; McGehee & Kim, 2003; Sharpley, 2002). Cox and Fox (1991) found that the marketing tools most respondents wanted were personal brochures, tourist publications, and hotel information desks. Ilbery (1991) found that most farmers did not seek professional advice prior to adopting agritourism. An exception was those who offered an accommodation activity (e.g., bed and breakfast). In this case, about half sought professional advice (Ilbery, 2001). McGehee and Kim (2002) found that less than 10% of respondents promoted their agritourism operation via convention and visitor bureaus, local tourism associations,

regional tourism associations, or chambers of commerce. Sharpley (2002) found that few took advantage of training opportunities to acquire business and service skills related to agritourism.

Oregon ranchers seem to rely more on word-of-mouth instead of using mass media (e.g., newspaper and magazine ads), travel agents, and agritourism associations to promote their operation. Yet, despite this low-key promotion approach, half of respondents called their agritourism business a success.

Shaw and Hale (1996) suggest establishing partnerships between those in the farm business with those not in the farm business. In Oregon, ranchers who are not comfortable diversifying into agritourism because of a lack of marketing and business knowledge may gain by partnering with non-ranch entrepreneurs. The rancher provides the asset (e.g., land and buildings) and the entrepreneur provides the business expertise. This approach may not appeal to many ranchers in this study because they would be losing control over the family business. When a respondent writes, “we have a family owned cattle operation,” it may be a confirmation that becoming partners with those outside the family is an unwelcome idea. If the business partner is a family member, an agritourism business would still allow for family ownership of both agritourism and cattle ranching businesses.

Research results can be used to develop effective marketing and education tools for current and future ranch owners. While few Oregon respondents indicated that they engage in agritourism, half of them declared their agritourism operation a success. Because agritourism can take many forms, from bed and breakfast operations to hunting and fishing leases to full service guest ranches, it is important to understand what recreation/tourist opportunities are currently available, what is planned for the future, and that agritourism enterprises are likely to lead to success.

Examine the capability of using sustainability indicators in agritourism enterprises

Sustainability indicators can be used in agritourism and cattle ranching enterprises as tools to identify sustainable practices for the preservation of cattle ranching livelihoods. Cattle ranching sustainability could be examined through indicators such as

acreage allocated for conservation easements open and closed to the public, acreage allocated for native forest/vegetation, acreage allocated for habitat restoration programs along riparian zones, and employment of family members on the ranch and in the agritourism. These could be indicators of economic and social diversification used by ranchers to maintain their ranching operation and their livelihood. In this study, I used three indicators to measure for sustainability of cattle ranching. The indicators used were labor distribution of family members, which was measured by the presence of employment of family and non-family members, which can be full-time and part-time, year round and seasonally on jobs on the ranch and in agritourism; family sources of sources of income (e.g., off-ranch income, livestock, grazing permits); and land use (e.g., conservation easements).

In Oregon, most ranchers, both in agritourism and not in agritourism, employ family members on their ranch either full-time or part-time, year round or seasonal. The only distinction between these two categories, ranchers in agritourism and ranchers not in agritourism, was found regarding part-time seasonal labor. Ranchers not in agritourism hire more part-time seasonal employees than ranchers in agritourism. This may be because ranchers in agritourism may be using more of their time and land for agritourism purposes than for livestock purposes as do ranchers not in agritourism. Or, for ranchers in agritourism, the income generated from agritourism practices may be supplementing income otherwise generated from livestock operations (e.g., cattle sales), thus the number of employees who could be working on the livestock operation are not hired due to a change in the rancher's land use practices and income sources. Because most ranchers, both in agritourism and not in agritourism, employ family members on their ranch, sustainability on the ranch may be realized. Here, sustainability is found by keeping the family working on the ranch because there is sufficient income generated to support not only the rancher, but the ranching family.

Nonetheless, many ranchers, both in agritourism and not in agritourism, relied on off-ranch income in addition to their on-ranch job. Income, therefore, may not be the only reason ranchers are relying on off-ranch employment. Insurance for the rancher and

their family may also be an important reason to work off-ranch. Economic sustainability, therefore, may not be taking place among ranchers when off-ranch income is a factor.

Conservation easements (both open and closed to the public) were scarcely adopted by Oregon respondents. Agritourism operators implemented conservation easements just as much as did ranchers not in agritourism. Sustainable use of the natural resources, nonetheless, can still take place without the adoption of a conservation easement. Further, the use of conservation easements as sustainability indicators may not provide sufficient information on rancher's conservation practices if ranchers are not officially enrolled in a conservation easement program.

Conservation easements could be used as indicators for land use allocation among all ranch land rather than the sole representative of conservation practices by ranchers. This is because some conservation easements (e.g., CRP) can be short-term conservation easements; therefore, land conversion from rangeland to urban land could still take place after the conservation easement contract expires. Conservation easements could be used more efficiently as sustainability indicators of natural resources if distinctions were made between permanent and short-term conservation easement contracts. Only conservation easements with contracts in perpetuity guarantee that the land being conserved will not be converted into another use, so these types of contracts may provide a more appropriate indicator for sustainability of natural resources than conservation easements in general. In addition, financial revenues from adopting a conservation easement could be important when deciding to obtain an off-ranch job. In this situation, the monthly payments paid by most conservation easement programs could also be an economical incentive in addition to the conservation goal.

In this study, respondents were not asked if their conservation easement was short-term or in perpetuity. Nonetheless, the presence of conservation easements by themselves may indicate that for at least a certain period these acres of natural resource land will not be lost to development.

CHAPTER SIX

Conclusion

In this study, I examined what motivated Oregon ranchers to diversify into agritourism through a mailback survey. Agritourism is one way to sustainably conserve open space. Its potential to supplement Oregon ranchers' income may also preserve ranching culture. Research on agritourism in Oregon and elsewhere, however, is scarce. Other research goals were to examine the congruence of conservation easements and agritourism, the feasibility of using sustainability indicators as tools to measure agritourism sustainability, and the future prospects of agritourism in Oregon.

This study mimics one developed by Nickerson, Black, and McCool (2001) of Montana farmers and ranchers. A total of 400 questionnaires were distributed to Oregon cattle ranch owners during the summer of 2002. Of those received, 177 were useable, for a response rate of 44%.

Agritourism activities among cattle ranchers in Oregon are scarce. Only 21% of respondents indicated they engage in agritourism enterprises. Of those who do, working ranch and fee hunting/fishing are the main activities offered. Top reasons for cattle ranchers to operate an agritourism business are to fully utilize ranch resources, capture additional income, to offset fluctuations in ranch income, and to educate the consumer. Findings in this study support previous research in agritourism, showing that the generation of additional income and to fully utilize ranch resources are top reasons to diversify. However, other motivations, such as consumer education and companionship, can be important motivations to some ranchers. The motivations to adopt agritourism, therefore, may be specific to the rancher and ranch.

Major barriers to agritourism are insurance and liability concerns, lack of time, regulations, and lack of financial assistance and resources. These findings support previous research on agritourism. Insurance and liability concerns can be minimized with the implementation of contracts among ranchers and guides or outfitters. In Oregon, liability is passed via contracts from the rancher to the guide or outfitter, so that guides or

outfitters are liable for injuries that take place by their clients when recreating on private ranch land (Obermiller, personal communication, June 22, 2004).

Another safeguard is the “reasonable man” doctrine (Edgar Snyder & Associates, 2004a) which states that “a ‘reasonable man’ has an obligation to exercise a certain degree of care ... and when he fails to uphold that duty (and if it should result in harm or injury to another, or his property) it's a legitimate reason for that party to be ‘made whole’ again. That is, to be compensated with money for ‘damages,’ by he or she that caused them” (<http://www.autorepair.about.com/library/insurance/aa-dan-16.htm>). Negligence is defined as a “conduct which falls below the standard of care established by law for the protection of others against unreasonable risks of harm” (Edgar Snyder & Associates, 2004b). Therefore, when a visitor suffers an accident and the accident is not the result of rancher negligence, the rancher is not liable for the visitor’s injuries (Obermiller, personal communication, June 22, 2004). Because liability waivers are invalid in most cases, visitors and guests cannot legally sign away their right to sue (Kraus & Curtis, 1990). Ranchers could minimize their liability by having visitors and guests acknowledge the nature of their activity and agree to obey the rules established by the rancher (Edgar Snyder & Associates, 2004a).

Other barriers, such as lack of time and personnel, could be minimized with the employment of family members, providing an alternative to off-ranch jobs.

The adoption of conservation easements, both open and closed to the public, was found to be rare among both ranchers in agritourism and ranchers not in agritourism. Only 10% of Oregon ranchers not in agritourism and 19% of ranchers in agritourism held land protected under a conservation easement (both open and closed to the public). However, because the total number of ranchers enrolled in conservation easements and the total number of ranchers who offer agritourism opportunities in Oregon is not known, comparisons between the findings of this study and state values were not possible. Therefore, no conclusions can be made about Oregon ranchers who have land conserved under a conservation easement and who are also involved in agritourism.

The adoption of a conservation easement as well as an agritourism operation is not suitable for every ranch, nor welcomed by all ranchers despite the economic benefits

that may arise by the adoption of either activity. Conservation easements may provide a link between traditional livestock operations and agritourism; however, ranchers may not know about such opportunities, nor about the possibilities and benefits that exist through the adoption of either program.

Although none of the four research hypotheses could be supported, significant relationships existed among other variables. There were significant relationships between the number of years cattle ranchers have been in the ranching business and the presence of family members who work off-ranch part-time year round; and gross annual household income and the hiring of non-family members who work part-time year round in the agritourism business.

The majority of respondents relied on livestock production as a source of income, but livestock production was responsible for only about half of ranchers' gross annual household income. Off-ranch income was the second major source of income. Findings indicate that agritourism may provide a profitable source of income allowing more ranchers to work full-time on the ranch while maintaining their ranching livelihood. However, many ranchers are still relying on off-ranch jobs despite having adopted an agritourism activity. No significance was found between ranchers in agritourism and annual gross household income. In this study, approximately 30% of respondents had been in agritourism five years or less; therefore, higher profits may arise as ranchers become more familiar with the challenges and logistics of agritourism.

Similarities were found with respect to the motivations to diversify and years in agritourism between Oregon and Montana ranchers. In both studies additional income generation and to fully utilize ranch resources were the main motivations to diversify into agritourism. About half of Oregon ranchers and half of Montana ranchers and farmers have been in the ranching business for 30 years or less.

Disparities, however, were found regarding agritourism activities offered, number of years in agritourism, and size of the property. Differences in agritourism activities offered may be a result of differences in topography, ranch management practices, and recreation patterns between Oregon and Montana. Regarding the number of years in agritourism, 62% of Montana ranchers and farmers have been involved in

agritourism ten years or less, a slightly higher percentage than Oregon ranchers (i.e., 45%). Agritourism in Montana is well promoted, especially regarding dude ranch recreation opportunities. In comparison, agritourism in Oregon is not promoted to any great extent and information is not easily found. Ranchers and farmers in Montana can rely on workshops that focus on agritourism, while ranchers in Oregon are not similarly supported.

Despite differences and similarities among Oregon ranchers and Montana farmers and ranchers, these findings are used with caution because of distinct differences in the sample populations of the two studies. These findings, nonetheless, may be used as a foundation for future research to better understand agritourism practices among cattle ranchers in Oregon.

The study revealed limitations in using the three sustainability indicators as indicators for the preservation cattle ranching livelihood. The survey results are factual for one point in time, providing a snapshot of reality. Capturing information on labor, land use allocation, and income sources as measures for sustainability requires at least two surveys, or better, a longitudinal study. Perhaps the indicators used in this study may not be the best indicators to measure sustainability for the preservation of the livelihood of cattle ranching when comparing agritourism and traditional livestock operations. This remains for future researchers to discover. This study could provide a baseline for further research in the use of sustainability indicators as tools to measure cattle ranching livelihood in Oregon. Or, other indicators could be tested, providing a more detailed comparison of cattle ranchers in agritourism and cattle ranchers not in agritourism. Suggestions regarding sustainability indicators for future research are: number of family members who started working on the ranch with the adoption of agritourism; number of family members who quit their off-ranch jobs to work in agritourism; number of family members who have been able to work on the ranch because of agritourism; size of family; percentage of gross annual household income that is allocated for family needs; the gender of respondents; the type of conservation easements adopted; whether or not conservation easements are made for agritourism purposes; and acreage allocated under a

conservation easement used for agritourism purposes. These sustainability indicators could be used for a matrix analysis of agritourism sustainability practices.

Future research

Because so few Oregon ranchers in this study were engaged in agritourism, it was not possible to determine key characteristics for agritourism success nor make comparisons of the motivations and barriers among ranchers in agritourism with ranchers not in agritourism. Future studies might use stratified sampling as a way to overcome this problem. Oregon ranchers in agritourism could be better represented, or oversampled. Because the total number of cattle ranchers in agritourism in Oregon is not known, oversampling could be done by personally contacting each cattle rancher and asking if they currently operate an agritourism enterprise. Those who operate an agritourism enterprise would be added to the study population. Random selection would then allow for an even distribution of cattle ranchers in agritourism and cattle ranchers not in agritourism. With a higher sample size of cattle ranchers in agritourism, oversampling, and stratification based on location regarding the Pacific Crest Trail would allow for testing of significance to be carried out.

Obtaining data on gender, age, education level, and number of family members supported by ranch income, can prove useful especially with regard to measures of sustainability. Research on gender would allow for a better examination of not only labor distribution among family and non-family members, but also gender distribution regarding agritourism adoption and agritourism activities provided. Research focusing on the adoption of agritourism businesses and women is of increasing interest to researchers (O'Connor, 1995).

More information about the types of conservation easements adopted or known by ranchers, and the challenges and reasons to adopt or not to adopt a conservation easement would be informative. In addition, a longitudinal study using a similar questionnaire design along with face-to-face, one-on-one structured interviews that focused on the topics discussed here could provide more comprehensive information about agritourism practices in Oregon.

A multimethod approach would allow for more detailed analyzes on the types of agritourism activities taking place in Oregon; on the economic and social influence of agritourism on ranchers' livelihoods; on the managerial, social, and structural patterns among ranchers in agritourism; and on the resources visitors are looking for when an agritourism destination becomes a vacation option. Qualitative research could take the form of case study research, focusing on groups of ranchers distributed by region within the state or by category of agritourism activities. Research as a participant observer might be informative. It could be carried out during workshops on agritourism, rural development initiatives, and alternatives to natural resources preservation on private land by local, state, and federal agencies.

Agritourism, sense of place, and place identity as linked concepts deserve their own research due to their influence on ranching culture. The American ranching culture, in many ways, epitomizes sense of place to an individual whose family has been in the ranching business for generations. The importance of sense of place and place identity to a rancher may explain why many landowners do not sell their properties despite favorable market prices. While sense of place, place identity, and place attachment were not investigated in this study, further study might enhance our understanding of the relationship between place identity and the success of agritourism practices. Sense of place can enhance one's experience while visiting a ranch, transforming the agritourism activity into a memorable cultural and heritage experience.

As shown in this study, agritourism can offer different benefits to ranchers, to rural communities, and to visitors. Unlike in Montana, agritourism opportunities are not well promoted in the state of Oregon. Information is also scarce even for those who are interested in adopting agritourism activities. Among respondents, word-of-mouth is the preferable marketing tool to promote their operations, therefore the use of internet promotion is still open for exploration.

The adoption of an agritourism enterprise, like the adoption of a conservation easement, is not for every ranch and every rancher, nor is it an easy transition even for those open to new ideas. Diversification to either activity may involve land allocation changes, land rights limitations, family conflicts, and privacy disturbances. These

changes can then become challenges to ranchers, creating obstacles to diversification. However, agritourism may provide much needed financial support and welcomed company. Agritourism opportunities found on ranches may be new to many Oregonians, but may have the potential to become trademarks of Oregon's sustainable land use. While agritourism may not be an answer to all the external and internal constraints imposed on cattle ranching in Oregon, agritourism may be a feasible start for some ranchers who are willing to move beyond their traditional comfort levels and livelihood.

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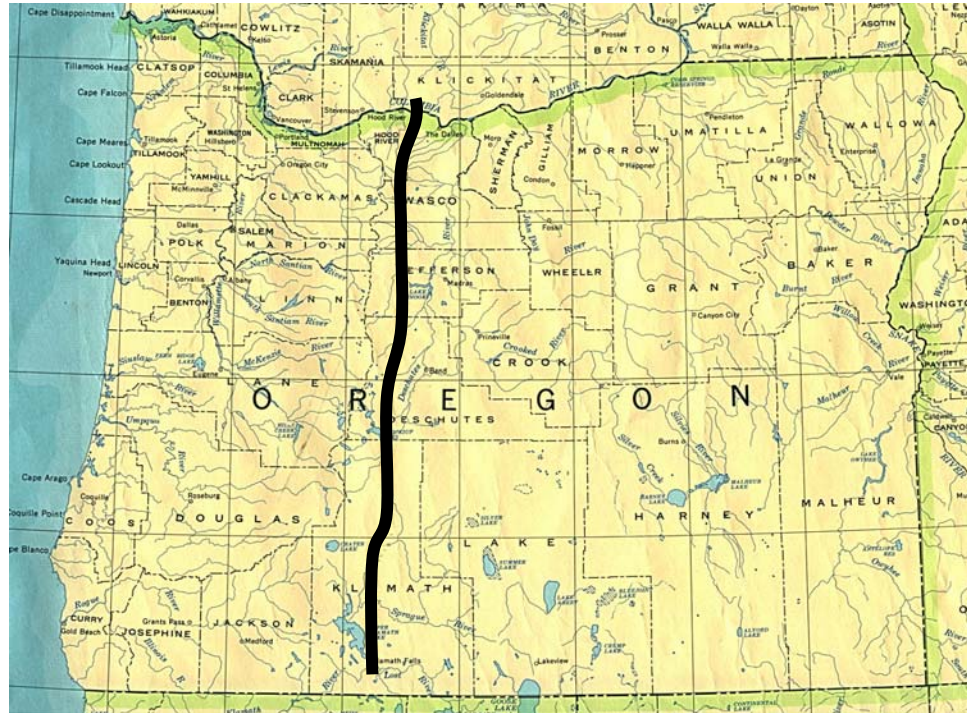
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APPENDICES

Appendix A: Map of the state of Oregon



■ The Pacific Crest Trail

Appendix B: Summary of survey responses – cattle ranchers in agritourism and cattle ranchers not in agritourism

Q1: How many years have you been ranching? (0=33.9 years) (n=177)

<=10 years	11 %
11 - 20 years	17 %
21 - 30 years	26 %
31- 40 years	16 %
41 - 50 years	15 %
51 - 60 years	10 %
> 60 years	5 %

Q2: How large is your cattle operation in mother cows? (n=175)

70%	< 200 mother cows
14%	200 to 350 mother cows
8%	351 to 600 mother cows
8%	> 600 mother cows

Q3: Of the total number of acres you own or privately lease, what percentage is used for the following (n=172):

0= 31%	Agritourism
0= 24%	Conservation Easement not open to public use
0= 26%	Conservation Easement
0= 23%	Extractive Activities
0= 60%	Grazing
0= 39%	Pasture/Haying
0= 34%	Other

Q4: Please check all the agritourism businesses you currently operate or anticipate expanding/starting in the next 5 years.

Currently (n=37)

79%	None
41%	Working Ranch
3%	Dude/Guest Ranch
8%	Bed and Breakfast
11%	Campground
11%	Guiding/Outfitting
41%	Fee Hunting/Fishing
8%	Horseback Riding
0%	Hay Rides
0%	You Cut Christmas Trees
5%	Education Programs (Children)
0%	Restaurant
14%	Other

Expanding/Start in next 5 years (n=177)

6%	Working Ranch
2%	Dude/Guest Ranch
2%	Bed and Breakfast
1%	Campground
3%	Guiding/Outfitting
5%	Fee Hunting/Fishing
3%	Horseback Riding
1%	Hay Rides
0%	You Cut Christmas Trees
2%	Education Programs (Children)
0%	Restaurant
3%	Other

Q5: If you indicated above that you currently operate an agritourism business, identify by number from Q4, the enterprises you consider to be the top three sources of income (from greatest to least) (n=37) (0=11.6 years):

fee hunting/fishing: 0= 36%
 working ranch: 0= 29%
 bed and breakfast: 0= 7%

Q6: How many years has your ranch been involved in agritourism? 21% of the surveyed ranchers have agritourism (n=37)

1-5 years: 30%
 6-10 years: 15%
 11-20 years: 11%
 more than 20 years: 8%

Q7: Why do you operate (or plan to operate) an agritourism business? (n=37)

1. Fluctuations in ranch income	NOT AT ALL IMPORTANT 3%	SOMEWHAT IMPORTANT 30%	QUITE IMPORTANT 19%	EXTREMELY IMPORTANT 22%
2. Employment for family members	NOT AT ALL IMPORTANT 22%	SOMEWHAT IMPORTANT 27%	QUITE IMPORTANT 11%	EXTREMELY IMPORTANT 11%
3. Additional income	NOT AT ALL IMPORTANT 3%	SOMEWHAT IMPORTANT 24%	QUITE IMPORTANT 22%	EXTREMELY IMPORTANT 30%
4. Losing federal grazing permits	NOT AT ALL IMPORTANT 38%	SOMEWHAT IMPORTANT 11%	QUITE IMPORTANT 5%	EXTREMELY IMPORTANT 11%
5. To meet a need in recreation/ vacation marketing	NOT AT ALL IMPORTANT 30%	SOMEWHAT IMPORTANT 24%	QUITE IMPORTANT 16%	EXTREMELY IMPORTANT 0%
6. Tax incentives	NOT AT ALL IMPORTANT 38%	SOMEWHAT IMPORTANT 19%	QUITE IMPORTANT 5%	EXTREMELY IMPORTANT 8%
7. Companionships with guest/ users	NOT AT ALL IMPORTANT 30%	SOMEWHAT IMPORTANT 27%	QUITE IMPORTANT 14%	EXTREMELY IMPORTANT 5%
8. It is an interest/hobby of ours	NOT AT ALL IMPORTANT 30%	SOMEWHAT IMPORTANT 27%	QUITE IMPORTANT 14%	EXTREMELY IMPORTANT 3%
9. To fully utilize our resources	NOT AT ALL IMPORTANT 3%	SOMEWHAT IMPORTANT 24%	QUITE IMPORTANT 35%	EXTREMELY IMPORTANT 19%

10. To educate the consumer	NOT AT ALL IMPORTANT 19%	SOMEWHAT IMPORTANT 11%	QUITE IMPORTANT 24%	EXTREMELY IMPORTANT 16%
11. Observed agritourism successes of others	NOT AT ALL IMPORTANT 32%	SOMEWHAT IMPORTANT 19%	QUITE IMPORTANT 11%	EXTREMELY IMPORTANT 5%
12. Other -please specify:	NOT AT ALL IMPORTANT 3%	SOMEWHAT IMPORTANT 0%	QUITE IMPORTANT 0%	EXTREMELY IMPORTANT 11%

Q8: How restrictive are the following in your efforts to develop agritourism? (n=37)

1. Regulations, rules, legal regulations	NOT AT ALL RESTRICTIVE 8%	SOMEWHAT RESTRICTIVE 38%	QUITE RESTRICTIVE 19%	EXTREMELY RESTRICTIVE 24%
2. Lack of financial assistance/resources	NOT AT ALL RESTRICTIVE 22%	SOMEWHAT RESTRICTIVE 22%	QUITE RESTRICTIVE 24%	EXTREMELY RESTRICTIVE 19%
3. Lack of personnel	NOT AT ALL RESTRICTIVE 27%	SOMEWHAT RESTRICTIVE 19%	QUITE RESTRICTIVE 22%	EXTREMELY RESTRICTIVE 14%
4. Lack of time	NOT AT ALL RESTRICTIVE 11%	SOMEWHAT RESTRICTIVE 19%	QUITE RESTRICTIVE 24%	EXTREMELY RESTRICTIVE 32%
5. Lack of agritourism business knowledge	NOT AT ALL RESTRICTIVE 19%	SOMEWHAT RESTRICTIVE 32%	QUITE RESTRICTIVE 13.5%	EXTREMELY RESTRICTIVE 14%
6. High rate of inflation	NOT AT ALL RESTRICTIVE 30%	SOMEWHAT RESTRICTIVE 32%	QUITE RESTRICTIVE 11%	EXTREMELY RESTRICTIVE 3%
7. Excessive taxation	NOT AT ALL RESTRICTIVE 27%	SOMEWHAT RESTRICTIVE 27%	QUITE RESTRICTIVE 16%	EXTREMELY RESTRICTIVE 11%
8. Lack of family and/or public support	NOT AT ALL RESTRICTIVE 43%	SOMEWHAT RESTRICTIVE 22%	QUITE RESTRICTIVE 5%	EXTREMELY RESTRICTIVE 11%
9. Lack of information (marketing, etc)	NOT AT ALL RESTRICTIVE 30%	SOMEWHAT RESTRICTIVE 27%	QUITE RESTRICTIVE 11%	EXTREMELY RESTRICTIVE 14%

10. Lack of social networks with others who are involved with agritourism	NOT AT ALL RESTRICTIVE 32%	SOMEWHAT RESTRICTIVE 34%	QUITE RESTRICTIVE 14%	EXTREMELY RESTRICTIVE 8%
11. Insurance and liability concerns RESTRICTIVE	NOT AT ALL RESTRICTIVE 14%	SOMEWHAT RESTRICTIVE 16%	QUITE RESTRICTIVE 22%	EXTREMELY RESTRICTIVE 43%

Q9: How similar are the managerial duties for your agritourism business and the managerial duties of all other aspects of your ranch operation? (n=37)

VERY DISSIMILAR 11%	SOMEWHAT DISSIMILAR 16%	NEITHER SIMILAR NOR 24%	SOMEWHAT SIMILAR 11%	VERY SIMILAR 22%
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Q10: Of the following activities, which ones do your guests/visitors seem to prefer?
If you do not offer that activity, circle "Do Not Offer" (n=37)

1) River float trips	DO NOT OFFER 60%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 0%	EXTREMELY POPULAR 5%
2) Motorboating	DO NOT OFFER 65%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 0%	EXTREMELY POPULAR 0%
3) Rafting/Canoeing	DO NOT OFFER 60%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 5%	EXTREMELY POPULAR 3%
4) Swimming	DO NOT OFFER 57%	NOT AT ALL POPULAR 5%	MODERATELY POPULAR 5%	EXTREMELY POPULAR 0%
5) Hot tubs/Saunas	DO NOT OFFER 60%	NOT AT ALL POPULAR 5%	MODERATELY POPULAR 0%	EXTREMELY POPULAR 3%
6) Tennis	DO NOT OFFER 65%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 0%	EXTREMELY POPULAR 0%
7) Horseback Riding	DO NOT OFFER 46%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 14%	EXTREMELY POPULAR 14%
8) Horseback Riding	DO NOT OFFER 49%	NOT AT ALL POPULAR 3%	MODERATELY POPULAR 11%	EXTREMELY POPULAR 5%

9) Cross Country Skiing	DO NOT OFFER 62%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 0%	EXTREMELY POPULAR 3%
10) Hiking/Nature Walks	DO NOT OFFER 46%	NOT AT ALL POPULAR 3%	MODERATELY POPULAR 16%	EXTREMELY POPULAR 3%
11) Mountain Biking	DO NOT OFFER 51%	NOT AT ALL POPULAR 11%	MODERATELY POPULAR 3%	EXTREMELY POPULAR 0%
12) Watching Wildlife	DO NOT OFFER 30%	NOT AT ALL POPULAR 3%	MODERATELY POPULAR 30%	EXTREMELY POPULAR 11 %
13) Guided Fishing	DO NOT OFFER 65%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 3%	EXTREMELY POPULAR 3%
14) Unguided Fishing	DO NOT OFFER 46%	NOT AT ALL POPULAR 3%	MODERATELY POPULAR 19%	EXTREMELY POPULAR 5%
15) Guided Hunting	DO NOT OFFER 38%	NOT AT ALL POPULAR 3%	MODERATELY POPULAR 8%	EXTREMELY POPULAR 19%
16) Unguided Hunting	DO NOT OFFER 27%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 19%	EXTREMELY POPULAR 32%
17) Skeet Shooting	DO NOT OFFER 60%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 3%	EXTREMELY POPULAR 3%
18) Gold Panning	DO NOT OFFER 65%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 3%	EXTREMELY POPULAR 0%
19) Photo Safari	DO NOT OFFER 62%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 3 %	EXTREMELY POPULAR 3%
20) History Programs	DO NOT OFFER 57%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 5%	EXTREMELY POPULAR 5%
21) Children's Programs	DO NOT OFFER 54%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 5%	EXTREMELY POPULAR 8%

22) Hay Rides	DO NOT OFFER 62%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 5%	EXTREMELY POPULAR 0%
23) Wagon/Sleigh Rides	DO NOT OFFER 68%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 0%	EXTREMELY POPULAR 0%
24) Family Style Meals	DO NOT OFFER 51%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 5%	EXTREMELY POPULAR 16%
25) You Cut Christmas Trees	DO NOT OFFER 68%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 0%	EXTREMELY POPULAR 0%
26) Cattle Drive/ Riding Herd	DO NOT OFFER 43%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 19%	EXTREMELY POPULAR 14%
27) Cookouts/BBQs	DO NOT OFFER 43%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 19%	EXTREMELY POPULAR 11%
28) Ranch Chores	DO NOT OFFER 41%	NOT AT ALL POPULAR 5%	MODERATELY POPULAR 27%	EXTREMELY POPULAR 0%
29) Pack Trips	DO NOT OFFER 65%	NOT AT ALL POPULAR 3%	MODERATELY POPULAR 3%	EXTREMELY POPULAR 0%
30) Cabins	DO NOT OFFER 54%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 14%	EXTREMELY POPULAR 5%
31) Camping	DO NOT OFFER 46%	NOT AT ALL POPULAR 3%	MODERATELY POPULAR 19%	EXTREMELY POPULAR 3%
32) Other	DO NOT OFFER 16%	NOT AT ALL POPULAR 0%	MODERATELY POPULAR 3%	EXTREMELY POPULAR 0%

Q11: On average, what percentage of your visitors are repeat customers?

0: 68% (n=37)

Q12: To the best of your knowledge, what percent of your guests/visitors are from (n=37) (Average values):

0 = 72% within Oregon
 0 = 45% California, Idaho, Nevada, and Washington
 0 = 12% Remainder of the U.S.
 0 = 0% Canada
 0 = 2% Europe
 0 = 0% Asia
 0 = 0% Other countries

Q13: To the best of your knowledge, how have first-time guests INITIALLY learned about your agritourism business? (n=37)

0% 1) Oregon travel planner
 0% 2) Oregon travel website
 0% 3) Other books (guide or guidebooks)
 0% 4) Agri-Business Council of Oregon
 0% 5) The Dude Rancher's Association
 3% 6) Chambers of Commerce
 38% 7) Family/friends/acquaintances of past guests/visitors
 5% 8) Internet/personal website
 8% 9) Magazine or newspaper article
 0% 10) Travel agents
 19% 11) Other

Q14: Of those checked above, identify by number from Q13, the method that appears to be most effective (n=37):

Family/friends/acquaintances of past guests/visitors: 32%

Q15: Would you say agritourism business is a success for you? (n=37)

YES 51%

NO 14%

Q16: Indicate the range which best describes your gross annual household income in dollars (n=177):

28% < \$50,000
 24% \$50,000 to \$100,000
 12% \$100,001 to \$150,000
 4% \$150,001 to \$200,000
 6% \$200,001 to \$250,000
 2% \$250,001 to \$300,000
 6% > \$300,000

Q17: Approximately what percentage of your gross annual household income comes from each of the following enterprises? (n=177) (Average values)

0= 8%	Agritourism (fee fishing/hunting, lodging, etc.)
0= 16%	Animal boarding/grazing leases
0= 20%	Extractive activities (mining, lumber, etc.)
0= 48%	Livestock production
0= 20%	Land-use leasing
0= 56%	Off-ranch income
0= 5%	Value-added activities
0= 45%	Other

Q18: How many FAMILY members, including yourself, work on your ranch? (n=162)

	Year-round		Seasonal	
None 14%	# full-time	0= 2	# full-time	0= 2
	# part-time	0= 3	# part-time	0= 4

Q19: How many FAMILY members, including yourself, have off-ranch income? (n=160)

	Year-round		Seasonal	
None 33%	# full-time	0= 2	# full-time	0= 3
	# part-time	0= 2	# part-time	0= 2

Q20: How many FAMILY members, including yourself, also work in your agritourism business? (n=149)

	Year-round		Seasonal	
None 80%	# full-time	0= 2	# full-time	0= 1
	# part-time	0= 2	# part-time	0= 2

Q21: How many NON-FAMILY people work on your ranch? (n=158)

	Year-round		Seasonal	
None 54%	# full-time	0= 3	# full-time	0= 4
	# part-time	0= 3	# part-time	0= 3

Q22: Of the NON-FAMILY members, how many also work in your agritourism business? (n=145)

	Year-round		Seasonal	
None 90%	# full-time	0= 1	# full-time	0= 1
	# part-time	0= 3	# part-time	0= 3

Appendix C: Questionnaire - first cover letter

Dear Ranch Owner:

Cattle ranches are unique American icons. However, some ranch operators in Oregon are facing difficult challenges staying in business. Many ranchers have found that by diversifying into another commercial enterprise (i.e., agritourism) they can generate needed additional income. We are trying to learn more about agritourism businesses on Oregon ranches. This information, when collected, will be used to develop effective marketing and education tools for current and potential ranch business owners. We realize that agritourism can take many forms, from bed and breakfast operations to hunting and fishing leases to full service guest ranches. Because of this diversity it is important to understand what recreation/tourist opportunities are currently available and what is planned for the next five years.

It will take less than 20 minutes of your time to complete this assessment and return it in the envelope provided. Your answers will be coded for computer analysis, combined with those for other ranches, and used for statistical summaries only. At no time will your name be released or associated with your responses. Your participation in this study is voluntary and you may refuse to answer any question. Only a small sample of ranchers will receive the questionnaire, so your participation is vital to the study.

The answers you provide will be kept confidential to the extent permitted by law. Special precautions have been established to protect the confidentiality of your responses. The number on your questionnaire will be removed once your questionnaire has been returned. We use the number to contact those who have not returned their questionnaire, so we do not burden those who have responded. Your questionnaire will be destroyed once your responses have been tallied. There are no foreseeable risks to you as a participant in this project, nor are there any direct benefits. However, your participation is extremely valued.

If you have any questions about the survey, please contact me at (541) 737-1499 or by e-mail at Jo.Tynon@oregonstate.edu. If I am not available when you call, please leave a message and I will call back. If you have questions about your rights as a participant in this research project, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator at (541) 737-3437 or by e-mail at IRB@oregonstate.edu.

Thank you for your help. We appreciate your cooperation.

Sincerely,

Joanne F. Tynon. Ph.D., Social Scientist

and

Fernanda de Vasconcellos Pêgas, Graduate Student

Forest Recreation Resources

Department of Forest Resources

107 Peavy Hall

College of Forestry

Oregon State University

Corvallis, OR 97331-5703

Appendix D: Questionnaire postcard

We recently sent you a questionnaire seeking information about agritourism businesses on Oregon ranches. We are hoping to hear from you!

If you have already completed and returned the questionnaire to us, please accept our sincere thanks. If not, please do so today. It is extremely important that your response also be included in the study.

If by some chance you did not receive the questionnaire, or it got misplaced, please call me right now (541-737-1499) and I will get another one in the mail to you today.

Sincerely,

Joanne F. Tynon, Ph.D., Social Scientist

and

Fernanda de Vasconcellos Pêgas, Graduate Student

Oregon State University

Appendix E: Questionnaire - second cover letter

August 2003

Dear Ranch Owner/Operator:

About four weeks ago we wrote to you asking about whether or not you are diversifying or planning to diversify into another commercial enterprise (i.e., agritourism). As of today we have not yet received your completed questionnaire.

The information we collect in this study will be used to develop effective marketing and education tools for current and potential ranch business owners. We realize that agritourism can take many forms, from bed and breakfast operations to hunting and fishing leases to full service guest ranches. Because of this diversity it is important to understand what recreation/tourist opportunities are currently available and what is planned for the next five years.

We are writing to you again because of the significance each questionnaire has to the usefulness of this study. Your participation in this study is voluntary and you may refuse to answer any question. However, your viewpoint is very important to us.

If your questionnaire is in the mail, please accept our sincere thanks. If not, a replacement questionnaire is enclosed for your convenience. Thank you for participating in this study.

Joanne F. Tynon, Ph.D., Social Scientist

and

Fernanda de Vasconcellos Pêgas, Graduate Student

Forest Recreation Resources
Department of Forest Resources
107 Peavy Hall
College of Forestry
Oregon State University
Corvallis, OR 97331-5703

Appendix F: Summary of survey responses - cattle ranchers in agritourism

Q1: How many years have you been ranching? (Average 28.8 years) (n=34)

< 10 years	21%
11 - 20 years	18%
21 - 30 years	26%
31 - 40 years	12%
41 - 50 years	12%
51 - 60 years	9%
> 60 years	5%

Q2: How large is your cattle operation in mother cows? (n=37)

60%	< 200 mother cows
2%	200 to 350 mother cows
8%	351 to 600 mother cows
11%	> 600 mother cows

Q3: Of the total number of acres you own or privately lease, what percentage is used for the following (n=37) (Average values)

0= 28%	Agritourism
0= 10%	Conservation Easement not open to public use
0= 14%	Conservation Easement
0= 13%	Extractive Activities
0= 60%	Grazing
0= 35%	Pasture/Haying
0= 19%	Other

Q16: Indicate the range which best describes your gross annual household income in dollars (n=33) (Average values)

0 = 35%	< \$50,000
0= 30%	\$50,000 to \$100,000
0= 5%	\$100,001 to \$150,000
0= 3%	\$150,001 to \$200,000
0= 3%	\$200,001 to \$250,000
0= 3%	\$250,001 to \$300,000
0= 11%	> \$300,000

Q17: Approximately what percentage of your gross annual household income comes from each of the following enterprises? (n=35) (Average values)

0= 8%	Agritourism (fee fishing/hunting, lodging, etc.)
0= 31%	Animal boarding/grazing leases
0= 18%	Extractive activities (mining, lumber, etc.)
0= 53%	Livestock production
0= 19%	Land-use leasing
0= 48%	Off-ranch income
0= 3%	Value-added activities
0= 46%	Other

Q18: How many FAMILY members, including yourself, work on your ranch? (n=37)

	Year-round		Seasonal	
None 16%	# full-time 0= 2		# full-time 0= 3	
	# part-time 0= 2		# part-time 0= 3	

Q19: How many FAMILY members, including yourself, have off-ranch income? (n=37)

	Year-round		Seasonal	
None 27%	# full-time 0= 2		# full-time 0= 2	
	# part-time 0= 2		# part-time 0= 3	

Q20: How many FAMILY members, including yourself, also work in your agritourism business? (n=34)

	Year-round		Seasonal	
None 38%	# full-time 0= 3		# full-time 0= 1	
	# part-time 0= 2		# part-time 0= 2	

Q21: How many NON-FAMILY people work on your ranch? (n=36)

	Year-round		Seasonal	
None 50%	# full-time 0= 4		# full-time 0= 2	
	# part-time 0= 5		# part-time 0= 2	

Q22: Of the NON-FAMILY members, how many also work in your agritourism business? (n=35)

	Year-round		Seasonal	
None 74%	# full-time 0= 0		# full-time 0= 1	
	# part-time 0= 3		# part-time 0= 3	

Appendix G: Summary of survey responses - cattle ranchers not in agritourism

Q1: How many years have you been ranching? (Average=35.1 years) (n=137)

< 10 years	8 %
11 - 20 years	17 %
21 - 30 years	25 %
31 - 40 years	17 %
41 - 50 years	16 %
51 - 60 years	12 %
> 60 years	6 %

Q2: How large is your cattle operation in mother cows? (n=138)

73%	< 200 mother cows
12%	200 to 350 mother cows
8%	351 to 600 mother cows
7%	> 600 mother cows

Q3: Of the total number of acres you own or privately lease, what percentage is used for the following (n=135) (Average values)

N/A	Agritourism
0 = 33%	Conservation easement not open to public use
0 = 33%	Conservation easement open to the public
0 = 30%	Extractive activities (e.g., timber)
0 = 60%	Grazing
0 = 40%	Pasture/Haying
0 = 37%	Other

Q16: Indicate the range which best describes your gross annual household income in dollars (n=111) (Average values)

0 = 26%	< \$50,000
0 = 23%	\$50,000 to \$100,000
0 = 14%	\$100,001 to \$150,000
0 = 4%	\$150,001 to \$200,000
0 = 6%	\$200,001 to \$250,000
0 = 1%	\$250,001 to \$300,000
0 = 4%	> \$300,000

Q17: Approximately what percentage of your gross annual household income comes from each of the following enterprises? (n=119) (Average values)

N/A	Agritourism (fee fishing/hunting, lodging, etc.)
0= 6%	Animal boarding/grazing leases
0= 20%	Extractive activities (mining, lumber, etc.)
0= 48%	Livestock production
0= 21%	Land-use leasing
0= 59%	Off-ranch income
0= 1%	Value-added activities
0= 45%	Other

Q18: How many FAMILY members, including yourself, work on your ranch? (n=125)

	Year-round	Seasonal
None 13%	# full-time 0= 2	# full-time 0= 2
	# part-time 0= 3	# part-time 0= 7

Q19: How many FAMILY members, including yourself, have off-ranch income? (n=123)

	Year-round	Seasonal
None 35%	# full-time 0= 2	# full-time 0= 3
	# part-time 0= 1	# part-time 0= 2

Q21: How many NON-FAMILY people work on your ranch? (n=122)

	Year-round	Seasonal
None 55%	# full-time 0= 2	# full-time 0= 6
	# part-time 0= 1	# part-time 0= 4