



FARM AND FOOD TOURISM:

EXPLORING OPPORTUNITIES

Farm and Food Tourism: Exploring Opportunities

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Module 1

Why Farm and Food Tourism?

Module Objectives

This module will enable participants to:

- Understand the growing market for farm and food tourism.
- Understand the specific enterprise and product opportunities within farm and food tourism.
- Evaluate the role foods play in creating a tourism destination image.
- Recognize farm/food tourism impacts to rural communities.
- Understand the potential benefits of implementing farm/food tourism operations and products.

Introduction

Agricultural producers in the west face numerous challenges to diversify their product and avoid risks associated with decreasing prices, increasing costs and changing consumer demand. New strategies include direct-to-consumer markets that have resulted in an increase in the Buy Local movement. There is very little data to measure the size of the local-food industry, but the number of farms participating is on the rise (Martinez et al., 2010). Furthermore, the United States is a late entrant into this movement. Denmark, Switzerland, and Austria report the highest per capita consumption of farmers' market produce (Organic Trade Association, 2009), and the European Union has required labeling showing the origin of all fresh food since 2011. Other countries are quickly following. There is also evidence that consumer demand is growing at a faster rate than small farms can accommodate, especially in the United States (Day-Farnsworth et al., 2009). It seems the world can't get enough of farm-fresh food items.



Figure 1.1: Brand USA Destination Marketing
Source Brand USA, established 2011

The popularity of the Buy Local movement is by through the 185% increase in the number of farmers' markets from 2000 to 2014. However, farmers' markets are not the only venue to purchase local-grown

It only makes sense that consumers who value local food at home would carry those values with them when traveling.

foods nor the only venue showing demonstrable increases in participation. For example, community supported agriculture (CSA) programs have seen a 275% increase from 2004 to 2014, and food hubs have increased by 288% from 2007 to 2014. The growth in participation in the Buy Local movement may be influenced by changing consumer preferences as shown by a consumer panel conducted by the National Grocery Association (NGA). In 2012, the NGA found that 70% of respondents rated the availability of local foods as "very or somewhat important" in their grocery shopping decisions. In turn, the growth in direct-to-consumer marketing outlets and changing consumer preferences has had a real impact on local growers. For instance, as recently as 2012, 164,000 farmers sold \$6.1 billion in local foods (Low et al., 2015).

It only makes sense that consumers who value local food at home would carry those values with them when traveling. Some of the key features of local food embraced by consumers include freshness, quality, support for local economies, personal relationships with farmers, and the perceived reduction in the environmental impact of locally sourced food. An increasing number of tourists wish to support local food no matter where in the world they find themselves. The U.S. Travel Association reports that 27 million travelers, or 17% of American leisure travelers, engaged in culinary or wine-related activities while traveling within the past three years (Sohn &

Yuan, 2013). The desire to visit locally sourced restaurants is evidenced by the National Restaurant Association's 2013 Restaurant Industry Forecast, which reported that 7 of 10 consumers were more likely to visit a restaurant offering locally sourced items. Additionally, the National Restaurant Association's 2014 "Top Ten Trends across the Nation" included locally sourced meats/seafood and locally grown produce as the top two trends (National Restaurant Association, 2014). Food tourism has become such a global craze that Brand USA, the destination marketing program for the United States, specifically promotes regional cuisines as a main selling point to attract visitors to the United States. This traveling public offers new and unique opportunities for local farms and other small businesses near tourism destinations or on travel routes between tourist attractions.



This curriculum is designed to provide valuable insight into food tourism, agritourism, culinary tourism, and other farm and food products that support the tourism industry and the tourist experience. Food tourism requires new management and marketing approaches that are distinctly different from traditional farming and other diversification strategies. Before investing in this unique market niche, it is important to understand the tourism industry, the tourist consumer, and the challenges of collaborative efforts between tourism and food industries. Furthermore,

accessing tourists, understanding their travel patterns, and effective marketing can be taxing for small farms. Tourism can be a rewarding and profitable endeavor, but determining how tourism plays into other farm activities, the infrastructure needed to support this market, and how visitors affect the use of farm resources are important considerations before investing time and energy into tourism expansions.

What Is Food Tourism?

An estimated 1 billion travelers generated \$1.4 trillion in direct spending worldwide in 2013 (United Nations World Tourism Organisation, 2014). This translates to a \$2.3 trillion economic impact and 8.3 million jobs in the United States alone. The majority of these travelers are domestic visitors, with only 15% coming from foreign countries (U.S. Department of Commerce, 2012). Food is one of the major tourism activities, constituting one-third of tourism expenditures (Hall & Sharples, 2003). Tourists tend to be insensitive



toward food prices because food is considered vital to the quality of a tourism experience. It is easy to see why the interest in accessing this lucrative market is on the rise.

Food tourism is generally defined from the tourist perspective as “the desire to experience a particular type of food or the produce of a specific region” (Hall & Sharples, 2003, p. 10). Food has become a central part of the tourist experience, which has sparked interest in promoting food as an enhancement of a particular destination or as a regional main attraction. Not only must tourists eat during their trip, food provides a new opportunity to taste the culture and experience a society or community. Food is an expression of heritage based on historical landscapes and traditional farming methods. Local recipes, often promoted through tourism, reflect local herbs and spices and traditional cooking techniques. As tourism destinations become increasingly competitive, finding ways to differentiate a destination becomes vital. Just the thought of Vietnamese pho in Vietnam, Italian pasta, New Orleans gumbo, or Montana prime rib can make the mouth water.

Food Tourism Impacts

Food Tourism Supports Communities

Food tourism provides many positive impacts on local communities. It delivers opportunities for marketing and developing regions without traditional tourism resources (e.g., natural attractions) or can enhance a destination that already offers a typical vacation experience. Food tourism can create new business opportunities for local farmers and food producers, as food can become an interesting theme to be included in agritourism enterprises and touristic attractions. Food tourism also allows communities to turn their food traditions into marketable attractions. Food can be promoted through food events (e.g., food festivals, farmers’ markets) that enhance the appeal of tourist attractions and foster the development of sustainable community economies (Quan & Wang, 2004). Food tourism is a form of regional development that helps strengthen local food and beverage production through backward linkages in tourism supply-chain partnerships. Thus, food is a valuable asset for the enhancement and development of local communities involved in tourism.

Food plays a role in strengthening local economies by encouraging the use of local products, which leads to regional economic impacts (Hall & Sharples, 2003). Food is a commodity essential for tourist consumption. However, the tourism industry has traditionally encouraged international food chains in an attempt to provide brand consistency on a global scale (Slocum and Everett, 2010). The fact that food is a basic need for tourists allows regional development agencies to use agriculture as an economic development tool that creates employment and small business opportunities for local residents. This economic growth comes not only through gastronomic establishments (e.g., restaurants, hotels) but also



Figure 1.2: Economics of the Tourism Industry
Source UNWTO (2014)

through farmers and other local producers (Yun, Hennessey, & MacDonald, 2011). Research suggests that consumer preferences and willingness to pay for locally grown produce is higher than for products of unknown origin (Carpio and Isengildina-Massa, 2009). The sourcing of local food through tourism can provide new markets for farms and unique expansion strategies for restaurants and build a destination brand that supports other local tourism businesses, such as museum, festivals, and bed-and-breakfast establishments.

Food Tourism as an Expression of Culture

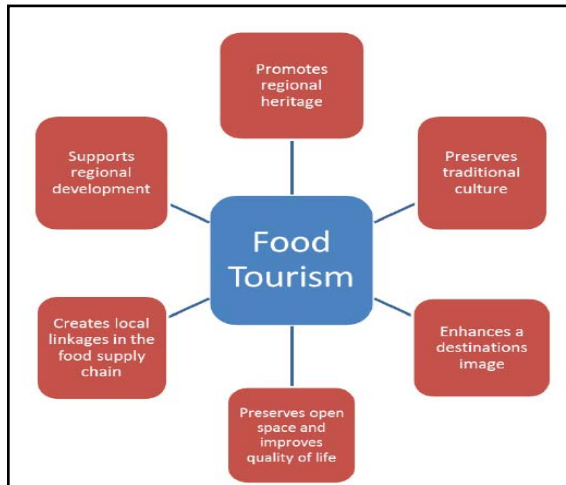


Figure 1.3: Food Tourism Benefits

Many people are curious to meet new people and explore exotic destinations, cultures, and traditions. Along with cultural traditions such as music, art, and dance, food has become one of the primary ways for people to explore new cultures and destinations (Croce & Perri, 2010). Many regional cultural traditions are linked to food, such as turkey at Thanksgiving, cake at weddings, or candy canes at Christmas. All of these are “as American as apple pie.”

Food is a defining component of cultural identity, as exemplified by the great diversity of gastronomic traditions, not only between different cultures but also within specific traditions and countries (Bardhi, Ostberg, & Bengtsson, 2010). Latin American food is a great example of such tendencies. For instance, the countries of Mesoamerica (which includes Mexico and Central America), while historically, culturally and economically related, have similar but distinct food traditions. Dishes such as tamales are common among Mesoamerican countries, but there are distinct regional differences. Even in Mexico itself, noticeable culinary differences can be seen throughout the region. Every community has its idiosyncratic food and beverage traditions that form a central part of its own folklore and self-identification.

Food Tourism and the Environment

Concerns about the impact of globalized food chains on the environment have caused local food to increase in popularity (Gössling & Hall, 2013). There is ample evidence that intensive monocropping increases the need for chemical fertilizers and the long-distance hauling of agricultural goods, which contributes to greenhouse gas emissions (Delind, 2006). Local agriculture, especially in the form of small farms, may reduce these environmental impacts by offering seasonally varied products, thus reducing shipping needs and food miles. Local farms often use specialty production processes such as organic, eco-friendly, free-range, or pasture-grazing, which reduce the need for chemical additives, hormones, or antibiotics in food. There is also evidence that local farms encourage the reduction of waste by recycling byproducts into the farm’s production process in order to reduce input costs (Gössling & Hall, 2013).

Tourism is a viable way of encouraging positive environmental changes to agricultural systems. Urban populations can be well versed in the local food movement and are inclined to support organic,

free-range, and cage-free food options (Renko, Renko, & Polonijo, 2010). Urban tourists envision pristine environments and idyllic lifestyles as an opportunity for rest and relaxation (Croce & Perri, 2010). Furthermore, rural populations are viewed as friendly and welcoming, leading to a sense of hospitality, a natural complement in tourism development. By capitalizing financially on these attributes, farming communities can support additional preservation of their environments and reduce pressures to develop their valuable landscapes.

Types of Food Tourism

Farm Tourism or Agritourism

Agritourism is a subsector of food tourism that specializes in incorporating visits to farms for the purposes of on-site retail purchases, recreation, and education. Agritourism has different definitions in different parts of the world and sometimes refers specifically to farm stays, as in Italy, or may include a wide variety of activities, such as buying produce from a farm stand, navigating a corn maze, picking fruit, feeding animals, farm or wine tours, food-related special events, or staying at a Bed & Breakfast on a farm. Other terms associated with agritourism are “agritainment,” “value-added products,” “farm direct marketing,” and “sustainable agriculture.” According to the 2007 U.S. Census of Agriculture, 23,350 farms provided agritourism and recreation services valued at \$566 million. Of those farms, 3,637 farms indicated gross farm receipts of \$25,000 or more.



Table 1.1: Farm Tourism (Agritourism) Examples

Farm/ranch vacations	School Tours
Garden/Nursery tours	U-pick operations
Fee Fishing	Game Preserve
Fee Hunting	Christmas Tree Farms
Horseback riding	Wagon rides
Petting zoo	Pony rides
Camping/picnicking	Pumpkin patch
Wagon rides	Farm shop/stands
Farm Stays (B&B)	Bird watching
Agricultural exhibits	Corn maze
Skeet shooting	Exotic farm animals



Culinary Tourism

Culinary tourism is another subset of food tourism that is defined as “the pursuit of unique and memorable eating and drinking experiences.” Tourists believe that experiencing a country’s food is essential to understanding its culture (Cohen and Avieli, 2004). But culinary tourism is more than just trying new and exotic foods; it unites anthropology, folklore, and history and can include ethnic recipes, international cookbooks, folk and food festivals, cooking shows and schools, specialty food stores, food tours, breweries, wineries, historical attractions, and many related businesses. Many producers across the United States have capitalized on their regions’ culturally unique cuisines, and special events celebrating food and drink provide an excellent opportunity for economic development. Special events might include food festivals, farmers’ markets, and wine or beer festivals. The 2014 Oregon Brewers Festival added \$32.6 million to the economy (Oregon Craft Beer, 2014), and California craft breweries generated approximately \$3 billion in total economic impact in 2011 (Richey, 2012).

Common Challenges in Food Tourism

Food tourism is influenced by government policy, tour operators, and individuals, all within the context of the agriculture and tourism industries. Agricultural producers often seek to diversify their offerings and distribution networks in an attempt to secure a viable future. Engaging in food tourism is a possible route



to greater financial stability. However, many local producers may be reluctant to grow or diversify. Other challenges in connecting the agricultural and tourism sectors may include the difficulty in reaching producers who are widely spread geographically, the variety in needs between small and large producers, and a possible lack of information about the tourism industry that can be easily understood and implemented by producers.

The tourism sector includes demand-driven tour operators. Regional tourism industries face increased competition and struggle to find the regional distinctiveness necessary to differentiate themselves from other destinations, both locally and internationally.

Some challenges faced by the tourism sector include a fragmentation of data regarding tourism markets and the potential impacts of agritourism within any given region.

Common challenges in introducing food tourism to a region may include encouraging wider use and better promotion of locally produced food, especially if the Buy Local movement is somewhat new to the region

or is, for other reasons, less established. Another challenge may be building a destination brand based on local food production or food service establishments. In turn, challenges in identifying and accessing tourism markets may lead to difficulties collaborating to create better networks among food producers and hospitality businesses across regions and groups. Finally, a lack of access to best-practice knowledge is another challenge to creating a fully functioning environment conducive to successful food tourism.

Why Consider Food Tourism?

The U.S. Intermountain West states are a popular tourism destination and a prime area for further tourism development. In 2013, 30.2 million visitors to Idaho spent \$1.4 billion in 2013. Nevada and Utah recorded similarly impressive visitor spending in the same year. A total of 52.2 million people visited Nevada, spending \$58.1 billion, while 23.5 million visitors spent \$7.5 billion in Utah. Nevada and Utah both recorded high visitation rates to state and national parks, with 24.6 million and 10.4 million people, respectively. Further tourism development has the opportunity to support rural communities through enhanced economic development in an environmentally sustainable manner.

Food tourism enterprises may benefit growers and food producers in a variety of ways. Food tourism diversifies marketing outlets by creating an additional market for current products. Diversification through food tourism not only leads to new markets but may encourage development of new products, value-added products, and enterprises. Another benefit of food tourism is the potential reduction in transportation and marketing costs. In addition, food tourism may provide income and employment for family members and friends as well as opportunities for year-round sales.

Food tourism encompasses a variety of enterprises with a variety of challenges and benefits, but even just a brief discussion of on-farm activities demonstrates the potential gains for producers offered by participation in food tourism. On-farm activities exhibit many of the benefits that may be obtained by participating in food tourism enterprises. On-farm activities require consumers to come to you, eliminating transportation costs for various farm products. Visitors can be educated about local foods, which can have beneficial results for the local community as well contribute to global understanding. On-farm activities also make it possible for producers to work in familiar environments and give producers more flexibility in scheduling activities.



Worksheet 1.1: The Role of Food in Tourism

Think about a recent trip or vacation you took and respond to the following questions.

What role did food play in your travels?

Did you have a memorable food experience? What made it memorable?

Did you try any local/ethnic foods? If so, why?

Did you visit any food attractions? Which?

Did you purchase any food souvenirs? If so, what were they?

Did you notice restaurants sourcing local food? If so, how was it promoted?

What type of food experience would have enhanced your trip?

Worksheet 1.2: Enterprise/Product Description

Describe your enterprise or product. Begin by noting industry trends, general market conditions, and/or perceived marketing opportunities that may exist locally, regionally, nationally, or internationally. Then describe the unique features that distinguish your product or service within the marketplace. How easily could competitors imitate these features?

Enterprise/Product: _____

Industry Trends/Changing Market Conditions:

Characteristic I _____

Easy to imitate? Yes/No _____

Characteristic II _____

Easy to imitate? Yes/No _____

Characteristic III _____

Easy to imitate? Yes/No _____

Summarize the unique features that distinguish the product/enterprise in the marketplace:

What partners or other support do you have?



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Module 2

Farm and Food Tourism Considerations

Module Objectives

This module will enable participants to:

- Evaluate the type of food tourism enterprise best suited to their existing business.
- Understand the management and resource requirements of farm and food tourism enterprises.
- Examine the requirements and challenges of sourcing locally to restaurants, hotels, and conference centers.
- Understand the benefits of building community partnerships.

Introduction

Food tourism is a term that unites a number of different food and tourism business opportunities. While the list of activities that fall under the blanket term “food tourism” is extensive, this module looks at four specific types of food tourism: agritourism, culinary tourism, food-related events, and local sourcing. Each section defines and highlights the needs of each sector. While there are many similarities, the overall goal is to provide producers and farmers with realistic expectations before beginning and investing in a new project. Additionally, it should be noted that local populations may also be part of the food tourism customer base and many of the tools provided work jointly with local and visiting customers. The module ends with a look at the regulatory structures of food and agritourism in the western states.

Establishing a plan of action will help ensure your success and allow you to use your resources more efficiently. Developing a business plan is always helpful and may be required if you intend to borrow money to support your agritourism or food-related business. Table 2.1 provides a list of important considerations for your enterprise.

The Plan	The Activities
Determine what you will offer	Identify some activities that seem doable, that fit with your goals and your farm resources, and that you have time for. List all the tasks or steps to get started. Once done, have someone else review it with you.
Protect yourselves and your visitors	Make sure you understand the regulatory and legal aspects of your new enterprise. Develop a risk-assessment plan.
Make sure your ideas are good ones	Call the extension or tourism office for input or enlist the help of a business counselor or event planner. What may sound good to you may not sound good to others.
Start small	Develop a launch date for the activity, then work backward and list all of the resources you will need and the tasks that need to be performed to be ready to launch.
Get the word out	Make sure publicity figures prominently into your plans as it takes a lot of promotion to get the attention you will need for launching a new enterprise. Advertising and promotion costs may outpace your returns initially. Remember that word of mouth is a key way to build business, so if you do it right the first time, the next visitors will not be so hard to attract.
The soft opening	One way to get started without a big launch is to plan a small activity targeted at a select group to test your ideas.
Take it slow	Take time to get feedback from visitors about what else they might like to see, do, learn, or buy at your farm. Then add in another attraction each year. Don't forget to plan with the big picture in mind.
Source: Ochterski & Roth (2008)	



Farm Tourism/Agritourism

Interacting with tourists, who require a lot of support and attention and ask a lot of questions, is very different from interacting with plants and animals. Therefore, assessing your own personality is another important step in starting an agritourism operation. Agritourism requires people skills. Tourist expected to be greeted with a smile and that all staff will be warm, friendly, and helpful. If you are not a people person, assess whether you have the resources to hire someone who is.

Checklist:

- Do you enjoy people?
- Are you good with children?
- Are you a good communicator?
- Are you patient?
- Are you organized?
- Are you flexible?
- Can you smile when things are hectic?
- Can you multitask?
- Do you enjoy learning new things?
- Can you adapt to change?



If the answer to the majority of these questions is yes, then you are a good candidate for agritourism.

Planning is one of the most important steps when starting a new venture. When considering agritourism, it is important to assess your property for potential attractions rather than investing a lot of money to build something new. It is also necessary for your farm enterprise to offer unique activities, opportunities, and fun. Tourists require activities, not just tours. They expect to learn something new, so educational or interpretive programs are helpful.

Checklist:

- Do you have sufficient property resources for the venture and parking?
- What will visitors do on your farm? Will it take all day or just a few hours?
- Is your venture located near the market you hope to attract? If you are not close to large-scale tourist attractions, can tourists combine other activities in your area to make the trip to your farm worthwhile?
- Are directions to your location easy to give? Do you need permission to add road signs?
- What will you have to change about your property to accommodate your new venture?
- Will it be affordable? Is it possible to open your business for a trial run without making any major changes or investments?

- Will you have the cash you need to begin your venture or will you need to get a loan? Are you willing to borrow the money?
- Do you have the time to accommodate tourists? Will you need to hire additional employees?
- Is your family supportive of your new venture? Are your neighbors supportive?

Tourists are not farmers, and they may have different expectations regarding their visit. The facility must be clean, freshly painted, and provide an attractive venue for recreation and enjoyment. Salvage equipment should be stored away from the visitation areas and personal living spaces (such as private backyards) should be clearly designated. Keeping the site attractive may require additional staff with designated clean-up responsibilities. There should be ample space for children to play and seating for people with mobility issues. Public restrooms are also necessary, and handicap accessibility must be evaluated. Make sure restrooms are fully stocked and evaluate whether you need separate facilities for men and women or unisex restrooms will suffice. Furthermore, convenient and visible parking that can accommodate a fluctuating number of potential visitors is vital. Full parking lots can dissuade visitors, leading to losses in farm revenue. Additionally, access for oversized vehicles is necessary, as many tourists travel in recreational vehicles or tour buses. Mark appropriate parking areas so that visitors' cars do not hamper farm operations.



Having tourists on-site can require a number of changes to both your facility and your operations. Make sure your facility is accessible for people with mobility issues. Door thresholds should be level, ramps should replace or augment steps, bathrooms should have grab bars, and narrow doors should be widened to 36 inches wherever possible. All new construction should be barrier-free, meaning that any visitor with physical limitations should still be able to access all visitor areas. Visitor safety is also a major concern. Determine the route visitors will take through your farm. Designated paths can direct guests through your property and keep them away from dangerous farm equipment and your family's private areas. Additionally, visitor payments can cause problems. Plan to offer credit card services or make sure an ATM is located close by. If you operate on a cash basis, make sure your customers know this in advance.

Seeking legal assistance is an important step toward preparing a new agritourism venture. As the owner, it is your responsibility to see that your visitors are safe and protected as well as to be prepared for accidents that may happen. Consider becoming a limited liability company (LLC) and explore insurance options. If food will be available for sampling or for purchase, be up to date on food safety regulations and follow a food safety plan.

Checklist:

- Are you ready for visitors?
- Is your facility handicapped accessible?
- Are there plenty of restrooms?
- Are ponds or other dangerous areas fenced off?
- Are there safety barriers to prevent accidents?
- Are people in place to assist visitors who might have diff culties?
- Is there a plan in place to care for someone who has an accident?
- If your mode of on-farm transportation is wagons, what safety features do they have?
- Do they have high rails to keep children in?

Culinary Tourism

Culinary tourism requires a destination approach to tourism that must involve numerous businesses and community organizations working together. While local residents may have a clear understanding of local cuisine, tourists may not understand specific cultural or historical recipes or cooking techniques (Curtis & Cowee, 2009). It is not only important to establish a destination image that ties into your culinary heritage, it is also vital to communicate these unique traits to visitors who may have little or no experience in your area. By partnering with other food and cooking establishments, tourists will find common cultural threads that encourage experimentation with new foods or recipes. Table 2.2 provides examples of tourism destinations and their culinary specialties.

Destination	Specialties
Louisiana Cajun	Gumbo, Jambalaya, dirty rice, boudin sausage
Southern food	Fried chicken, hushpuppies, collard greens, okra, boiled peanuts, catfish
Montana meat	Prime rib, Rocky Mountain oysters, buffalo burgers, wild game (venison, antelope)
Florida Cuban	Cuban sandwiches, conch chowder, key lime pie
Southwest	Navajo fry bread, chili, peppers, squash varieties, cornmeal
The soft opening	One way to get started without a big launch is to plan a small activity targeted at a select group to test your ideas.
Take it slow	Take time to get feedback from visitors about what else they might like to see, do, learn, or buy at your farm. Then add in another attraction each year. Don't forget to plan with the big picture in mind.



In order to establish yourself as a culinary destination, it is important to establish partnerships. Become a member of your local food group and regional tourism association. Coordinate closely with your regional food and wine organizations and tourism membership and marketing bodies (such as your local tourism information center or visitor and convention bureau), and participate actively in regional food and wine events. If your product fits neatly with a local theme, work with other businesses to establish a trail or joint product of some kind and market your products together. Think about offering special, focused events, such as guided tastings, at a low cost to bring people in. If you provide tours, develop a standard commentary for yourself and other staff who guide visitors. Keep it light, informative, and include historical traditions and reasons for regional differences. Be ready to answer questions.

Table 2.3: Tips for Building Community Partnerships

Goals	Actions
Talk about your proposed project and share your ideas at clubs and meetings	Listen to their concerns and feedback. Address any potential problems early in the project's development.
Develop a comfortable style of public presentation	Create a clear picture of your mission and expected outcomes. Join the local chamber of commerce. Offer to write a regular column for your local newspaper if you have time and the ability.
See any shortcomings as potential for future partnerships	Inventory your community, seeking out those who have what you need in order to accomplish your goals. Develop mutually supportive relationships.
Identify those with whom you share potential customers	Develop joint promotions and possibly joint marketing opportunities to track the source of your leads. Be innovative.
Engage adversaries	Most people simply want to be heard or are afraid of unknown impacts. Sit down with them, listen, and address their concerns.
Make your business and marketing plans available	Engage community members to work with you. Use your plans to support your actions and efforts.
Manage the physical expansion of your operation	Ensure a satisfactory quality of life for everyone affected.
Work with other businesses	Encourage support for locally owned businesses in general.
Build on resource-based assets	Maintain and enhance historic structures in your locality.
Source: Jolly (2006)	



Many of the facility and personality traits discussed above in the agritourism section also apply to culinary tourism. An important consideration is where to host your culinary activities. Decide whether you want to cook on your farm or partner with a nearby food preparation facility. If you choose to cook on your farm, you will be required to have a commercial kitchen or other approved cooking space. It may be more appropriate to offer cooking activities at a local restaurant or community kitchen to avoid expensive renovations on your farm and to comply with local food safety regulations. Partnerships are vital in culinary tourism activities. Have a visitor come to your farm and pick fresh fruits and vegetables, then go to a restaurant close by to have these food items prepared. Understand that culinary tourism, like agritourism, requires close interactions with guests. Make sure you enjoy working with people and have a hospitable personality; otherwise, consider hiring a specialist to run your culinary tourism operations.

Food-Related Events

Food-based attractions include special events surrounding food and drink and can include food festivals, farmers' markets, wine regions, and food trails. Starting your own event is not a one-man show but requires investment, collaboration, and a detailed marketing plan. Often it is best to hire a general manager who is responsible for the planning and execution of the festival or fair, specifically to oversee site preparation, stage and production, event support and security. It is important to ensure that you are not competing with other fairs in your area, therefore establishing a distinct theme or targeting to a specific audience can avoid duplication. While food events may start out small, long term growth planning is important. Make sure your site has the room to accommodate growth, both in the number of vendors who may want to be included, and the number of attendees that will come to your event. It is always a good idea to work with professional event planners in the beginning to avoid costly mistakes.



Using quality equipment will help ensure that your vendors and customers are safe during your event. Make sure you get good equipment at a good price and that you rent structurally solid booths, staging and scaffolding. It is best to get bids and check the histories of all vendors, including references. Keep your standards high and meet with vendors daily during the program to manage work crews and resolve issues that arise. If you are true to your word vendors, performers and food people will come back for future events.

Food events are rarely profitable on their own, but offer new avenues for sponsorship and marketing outlets for local businesses. Managing sponsorship is an important consideration for food-related events. Sponsorship can come in many forms, such as cash, goods and services, and advertising value. Offering levels of sponsorship also ensure that donors receive the level of recognition associated with the amount they are giving. Create major sponsorship categories (i.e., auto, financial, beverage, media, etc.) and offer sponsorship levels (i.e. gold, silver, bronze) for each of the programming areas. Identify sponsor requirements early such as electricity, water, etc., and notify the operations team to determine best locations. Sponsors often expect privileges, such as free tickets for family and friends. However, make sure they know their limitations and do not allow sponsors to roam on-site during the event or access working areas that may contain hazards.

Marketing a food event starts months before the festival and may continue right through to next year's event. Tourists usually plan ahead and want to know what activities are happening in a destination months before they arrive. Media partners and sponsors can help you reduce your advertising expenses and can support early marketing when cash flow is tight. Incorporate festivals into existing advertising, public relations and marketing campaigns for your area and around the major tourism destinations close to you. Event brochure print production schedule will help drive festival planning deadlines and the creation of individual press releases ensure that visitors keep your festival on their travel itinerary.

Vending at Existing Fairs

Often it is easier to vend at an existing food fair in order to gain special event experience or to better manage limited farm resources. When deciding to open your own booth at a festival, remember that the festival organizer is facing all the challenges listed in the previous section to ensure the success of their event and the safety of their participants. Establishing a reputation and following the festival guidelines will be required before you can be considered. Trying to enter a food-related event is similar to applying for a job. You will need to convince the organizers that you will offer a quality product at a competitive price.

When approaching the event manager, be prepared to address all the issues shown in figure 6 above. Pick your food carefully. Try to aim for a large target audience as many organizers want something that will stand out from the rest. Find references that articulate your ability to provide large-scale food production in an outdoor setting. Bring samples of your food for the event manager to taste. Ensure that you will have an appropriate number of employees and that you can serve your food in a timely manner. Know what paperwork you will need and be prepared to get a license from a local authority which could include a fee. Find out about insurance



requirements and have those in place. The better organized you are, the more likely a food festival manager will see the value in including your products at the festival.

Local Sourcing

Local sourcing involves selling local produce, meats and cheeses to tourism establishment such as restaurants, hotels and conference centers. The National Restaurant Association (2014) claims that sourcing local meat and seafood is the number one trend for chefs, followed by sourcing local fruits and vegetables. These trends are good news for local farmers.

Restaurants/Chefs



The food service industry is highly competitive and businesses struggle to differentiate themselves from their competition in different ways. Some use price as a distinguishing feature and may not be receptive to more expensive food staples. Restaurants, in particular, must satisfy their local clientele who have favorite menu items and may not understand the seasonality in local produce. Others, however, may use local food as a distinctive feature and may be willing to cook using seasonal variety and increased input costs. Restaurants that cater to tourists may be more flexible with seasonal varieties (Curtis et al., 2008). Know the marketing strategy of any restaurant, hotel or conference center before you approach them.

Consistency and reliability are the most important feature to food service establishments. They require fresh food, especially fruits and vegetables, to be delivered several times each week. Farmers may have difficulty competing with large-scale producers that have access to large-scale marketing budgets. Dealing with multiple farmers requires extensive time, something chefs do not have. If your farm is unable to

source enough food to meet demand, you may want to partner with neighboring farms. Other options include the use of drop off points, such as food hubs, where local food can be consolidated and transported in bulk to food service establishments. Food hubs provide the logistic support, marketing savvy, and food safety expertise and provide for a steady supply of “locally grown” which can be channeled into the larger scale purchasing systems with which restaurants, hotels, and institutions are already used to dealing. Food hubs also help match supply with demand so that if a temporary surplus exists in one location, the hub can make that excess available to dealers in other market areas through reciprocal purchasing arrangements. The result is stable prices and predictable income for farmers.

Another option is to check with major distributors, such as Costco or Avendra, as they have started programs in the provision of local food. These companies have a wide reach and often hold contracts with hotels or conference facilities, limiting these organizations from purchasing directly from farmers. However, these multinational corporations may be expensive or bureaucratic, requiring extensive certifications, paperwork and rigorous safety standards

Table 2.4: Considerations for Working with Chefs

Considerations	<ul style="list-style-type: none">• Expect small order sizes and frequent deliveries.• Chefs value top-quality produce.• It's important to provide buyers with weekly availability lists.• Chefs may require a consistent supply of particular items.
Key Questions to Ask Yourself	<ul style="list-style-type: none">• How far in advance do the chefs need to see an accurate schedule of product availability in order to allow them to plan their menus?• Which restaurants are the best fit for my product profile? Ethnic? High-end gourmet? Specialty bakeries?• What production, handling, storage, and delivery methods will I use to ensure the freshest and highest quality products to high-end chefs? Highlight these in outreach to chefs.• How frequently and quickly am I able to deliver to restaurants? What are the chef's expectations about this?• How do the restaurants want to communicate with me? (Cell phone, text message, e-mail, fax)
Tips for Direct Sales to Restaurants	<ul style="list-style-type: none">• Be consistent. Chefs expect a product to be delivered if they put it on the menu.• Build a relationship with the entire staff. Chefs move frequently.• Chefs are on a tight schedule and generally require deliveries when they're not busy, such as before 10 a.m. or between 2 and 5 p.m.• Introduce new products by dropping off free samples with your regular deliveries.• Fax or e-mail a list of available products for the chef to order from.• Use the chefs as your best source of market information. They may know what the next big thing is before you do.• Know how the chef is using your product and be prepared to talk about other ways to use it.• In the autumn, ask the chefs what products they want you to grow next season.• Ask about each restaurant's needs: pack, size, variety, post-harvest preferences, new items, and how they would like to place orders.
Source: Alcorta, Dufour, & Hinman (2012)	

Hotels/Conference Centers

Hotels and conference centers may operate jointly but have different requirements for different sets of customers. Hotels operations require the largest supply of food during the peak summer seasons when people are travelling recreationally and farmers are busiest. Conference centers need the largest supply in the off season, when people travel for business and when farms are idle. Hotels and conference centers usually know in advance the number of guests they expect, and therefore know the amount of food they will need. Hotels require a more consistent supply, but conference centers may be more randomly scheduled. Remember that many hotels and conference centers are global organizations. Supply chains are a complex issue for global hotel companies, which must partner with suppliers that extend across numerous countries in which they purchase food and beverages, heavy equipment, linens and pillows, and toiletries. Additionally, sourcing options for most hotels and conference centers are constrained by national sourcing contracts with major distributors (such as Cisco and Avendra) (Kang, 2012).



While hotel food service establishments operate similarly to restaurants, there are some differences. Hotels usually need staple items such as fresh meat, vegetables, and fruits. They do not offer “daily specials” and are therefore less likely to need specialty items. The Food and Beverage Manager should be your first contact, and you should invite him or her to visit your farm. Be sure to bring samples of produce to share with the chef or buyer and provide deliveries on time. Immediately notify the Food and Beverage Manager of potential shortages or changes in delivery schedules.

When sourcing locally to conferences and meetings, meeting planners are often the best point of contact. If possible, find meeting planners that specialize in “green meetings.” It’s possible that meeting planners may only need products occasionally but in large quantities. If needed, partner with other local farms to ensure quantity. Be sure to have an accurate list of in-season produce each month. Knowing where planners source their food (in-house food and beverage, caterers, self-bought, etc.) may be important. Try to think of the whole package, which may include coffee, pastries, meat, vegetables, dairy, juice, bread, or perhaps snack foods as an option for value-added products. Promote your strengths, which may include fresh, healthy food that allows participants to sit longer and concentrate more easily. Provide printed fliers to promote your involvement and tell your region’s story.

More Information

Table 2.5 provides contact information for a variety of state and national food and agritourism resources.

Table 2.5: Tourism Resources and Contacts

State	Organization	Contact
Idaho	Idaho Wine Commission	http://www.idahowines.org/
	Visit Idaho Events	http://www.visitidaho.org/events/
	University of Idaho, Cooperative Extension	http://www.uidaho.edu/extension
	Idaho Department of Agriculture	http://www.agri.idaho.gov/
	Idaho State Agritourism Statutes	http://nationalaglawcenter.org/wp-content/uploads/assets/agritourism/idaho.pdf
Montana	Conserve Montana - Agritourism	http://www.conservemontana.org/content/aeros-abundant-montana-directory-to-highlight-agritourism/cnm2D018228EE07BBF8A
	Montana Department of Tourism – Agriculture Tours	http://visitmt.com/experiences/food_and_beverage/farmers_markets/
	Montana State University, Cooperative Extension	http://www.msuextension.org/
	Montana Department of Agriculture	http://agr.mt.gov/
Nevada	Local Sourcing Restaurant List	http://buynevada.org/businesses/restaurants/
	Local Sourcing Distributors List	http://buynevada.org/businesses/distributors/
	University of Nevada, Cooperative Extension	http://www.unce.unr.edu/publications/
	Nevada Department of Agriculture	http://agri.nv.gov/
Utah	Edible Wasatch	http://www.ediblewasatch.com/
	Utah State University, Cooperative Extension	http://extension.usu.edu/
	Utah State Agritourism Statutes	http://nationalaglawcenter.org/wp-content/uploads/assets/agritourism/utah.pdf
National	Advertised prices of last week's produce nationwide and by region	https://www.marketnews.usda.gov/mnp/
	Chefs Collaborative network	www.chefscollaborative.org
	Lookup prices (PLUs). A complete online list	www.plucodes.com
	ATTRA Publications	www.attra.ncat.org
	Dude Ranchers Association of America	www.duderanch.org
	World Food Travel Association	http://www.worldfoodtravel.org/
	U.S. Farm Stay Association	http://www.farmstayus.com/

Worksheet 2.1: Resource Needs

List the resource needs you have as you add a new enterprise, expand markets, or reallocate resources. Describe any gaps between current resource availability and future resource needs. Lastly, develop your acquisition strategy for meeting or filling future resource needs. Will you redirect or make better use of current resources? Will you purchase or rent additional resources (new or used)? Or will you gain access to resources through agreements, custom-hire, or contracting services? List your acquisition strategy alternatives in the space provided.

Enterprise/Product _____

Resource Needs:	Currently Available	Acquisition Strategy
Land _____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____
Buildings _____ _____ _____	_____ _____ _____	_____ _____ _____
Machinery and equipment _____ _____ _____ _____ _____	_____ _____ _____ _____ _____	_____ _____ _____ _____ _____
Management skills/training _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____
Safety/Insurance _____ _____ _____	_____ _____ _____	_____ _____ _____
Supplies _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____

Worksheet 2.2: Resource Affordability

Use this worksheet to estimate the price you can afford to pay for new resources.

Gross cash income = _____

Cash expenses (excluding interest) - _____

Income taxes - _____

Principal payments on term debt - _____

Depreciation reserve - _____

Social security taxes - _____

Total cash family living investments & other capital purchases - _____

Other income + _____

Cash available for principal and interest on added debt = _____

Down payment (if any) + _____

Maximum financially feasible price = _____

Worksheet 2.3: Institutional Considerations

Describe institutional factors that will affect your ability to use and manage physical resources under your new operations strategies. Include any long-term leasing arrangements, conservation easements, permit requirements, legal restrictions, and production or marketing contracts.

Long-Term Leasing Arrangements

Specify whether items will be leased in for your use or leased out for the use of others.

Long-Term Agreements and Easements

Permit and Legal Restrictions

Specify the agency responsible for issuing permits, conditions and compliance factors, fees, and your ability to meet these conditions.

Long-Term Production Contracts and Marketing Agreements



Worksheet 2.4: Regulations and Policies

List any permits, institutional requirements, or other government policies that will affect your operations. When noting permit requirements, be sure to describe any ongoing compliance issues such as annual permit renewals and fees. Next, describe your ability to meet these conditions.

Permit/License/Policy _____

Issued by: _____

Conditions and compliance issues:

Fees:

Can we meet these conditions?

Permit/License/Policy _____

Issued by: _____

Conditions and compliance issues:

Fees:

Can we meet these conditions?

Permit/License/Policy _____

Issued by: _____

Conditions and compliance issues:

Fees:

Can we meet these conditions?



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Module 3

Understanding the Tourism Market

Module Objectives

This module will enable participants to:

- Understand tourist motivations and preferences.
- Understand the role that food plays in the tourist experience.
- Compare food tourist types by interests and activity levels.
- Evaluate food and farm tourism promotional options

Introduction

Tourists generally seek experiences that involve the local identities and cultures of the places they visit. Often this can be accomplished through food-related activities and local cuisine. However, a full understanding of the role that food plays in travel and information about accessing food tourists is still in its infancy. This module discusses food tourist identities—such as their demographics and psychographics—and attempts to describe the role that food plays during travel. While this information is still incomplete, it should provide a platform on which to explore food and farm business options within tourism industries.

Studies show that tourists travel to destinations that have established a reputation as places to experiment with quality local foods (UNWTO, 2012). In fact, many regions have built reputations as travel destinations around food. As a representation of the increasing value of local food, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) has designated the Mediterranean diet to be an intangible World Heritage site. This monumental decision brought regional food into



Many regions have built reputations as travel destinations around food.

the forefront of heritage recognition and makes food a global tourism attraction. Other food-related attractions and traditions recognized by UNESCO include Turkish coffee traditions, Georgian wine making, the Morocco's Cherry Festival, and French gastronomy.

Tourists' food preferences vary based on factors such as destination, seasonality, tourist type, visitor nationality, and other factors. Food tourists are typically open to new experiences and have a desire for lifelong learning. Food tourists are educated consumers with high expectations (Croce and Perri, 2010). Of course, the influence of food on tourist experience may vary by degrees. For instance, some tourists treat food consumption as just one part of the travel experience, while others may use food as a basis for their activities, and still others may use food traditions to select their destinations. Food choices can be motivated by cultural experiences, interpersonal relations, sensory appeal, and health concerns (Lee, 2012).

In general, there are two types of food consumers (Pliner and Hobden, 1992). Neophobes, individuals with a recognized fear of anything new, do not like to experiment with food. They tend to like foods that are familiar to their home culture. Neophobia is more prevalent among young children and older adults. Neophiles, on the other hand, enjoy exploring and trying new things. Their characteristics include



- The ability to adapt rapidly to extreme change;
- A distaste or downright loathing of tradition, repetition, and routine;
- A tendency to become bored quickly with old things;
- A desire, bordering on obsession in some cases, to experience novelty;
- A corresponding and related desire to create novelty by creating or achieving something and/or by stirring social or other forms of unrest.

Knowing which type of travelers come to your area allows you to provide the appropriate mix of traditional and exotic foods. For example, Asians, who traditionally eat very little dairy, may want to avoid cheese products entirely (neophobe) or may find the experience of eating locally made butter to be the highlight of their trip (neophile). It is best to find a balance between the familiar and the unusual so that you can offer your visitors a variety.

Characteristics of Foodies and Food Tourists

Most food tourist studies have started with the easily recognizable “foodies.” A foodie is defined as individuals with “a long-standing passion for eating and learning about food but who are not food professionals” (Cairns, Johnston, and Baumann, 2010, p. 592). They may also choose to travel specifically to experience new foods. Foodies may be well educated on food, but often they just have an interest and enthusiasm for learning about food, regardless of their knowledge level (Johnston and Baumann, 2010). They may have high standards for food quality, but may not require expensive or gourmet-style foods (Hermosillo, 2012). Barr and Levy (1985) developed a foodie typology that designates seven different foodie types (Table 3.1).

Foodie Type	Description
Whole-Foodier Than Thou	Uses only organic methods, grows their own produce and flowers, slaughters their own meat, and uses simple ingredients in their cooking.
Squalor Scholar Cook	Does their research and knows the history of their favorite foods and recipes and values traditional recipes. Academic and historical knowledge of food sets them apart from others.
Made in Paris	Starts off learning basic cooking techniques in small restaurants and manages to move themselves up the ranks through their connections to make a living cooking in Paris, a foodie mecca.
Paris C'est un Dump	The ultimate upscale foodie. Spends much of their time in expensive restaurants, subscribes to important food magazines, and is extremely picky.
Gorgeous East in Me	Drawn to ethnic and foreign foods, constantly wants to try new things and experience new cultures through food.
Foodies on Ice	Regards food as artistic material, aims to impress by creating ice sculptures, elaborately decorated cakes, or butter statues.
All-American	Small-town foodie who searches out local food and ingredients that deserve attention, constantly attempts to improve their products and create new dishes.

Source: Barr and Levy (1985)

Studies involving “foodies” usually occur at food-related festivals or events. Hall and Mitchell (2005) argue that regional culinary festivals provide a motivation to visit an area, stay in accommodation, and eat at local restaurants. Therefore, understanding these festival travelers allows businesses to increase the effectiveness of their promotional campaigns by targeting the appropriate audience and tailoring their messages to the psychological needs of the ever-growing and diverse group of culinary tourists. For example, Uysal, Gahan, and Martin (1993) examined visitors’ motivations for attending a corn festival in South Carolina and found that the key inspirations were (1) escape; (2) excitement and thrills; (3) event novelty; (4) socialization; and (5) family togetherness.

Using these factors, Chang and Yuan (2014) investigated attendees of the Texas Style Wine, Art, and Food Festival. The results showed that older respondents had an increased desire to seek entertainment and to escape from their daily routine than younger participants and that respondents with bachelor degrees or higher rated attending the festival as an important way to escape from stress. Additionally, female respondents rated food as a more important factor than did the male respondents. Respondents with annual income higher than \$40,000 perceived the escape/event novelty factor as being of more importance, whereas those with incomes of less than \$20,000 rated the external socialization motivation factor of greater importance. In general, the lower income group had a greater desire to meet new people and build new relationships as well as enjoy the arts than did the slightly higher income groups.

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Understanding Food Tourists

Sohn and Yuan (2013) used factor analysis to provide a better understanding of psychographic behavior of food tourists at the Lubbock Wine Festival in Texas. Through an assessment of their different lifestyle values (ideals, achievements, and self-expression), this study defines groupings of food tourists with similar values, lifestyles, and motivations (Table 3.2).

Table 3.2: Classification of Culinary Tourists

Idealist	<ul style="list-style-type: none"> • I am a cautious consumer. • I am a conscious consumer. • I am very price sensitive. • I am a penny-pincher. • I consider myself to be a planner. • I see myself as ecology minded. • I prefer products that I am familiar with and know I can afford. • I am risk-averse. • I am sensitive to the tastes and preferences of people with whom I live and socialize.
Achiever	<ul style="list-style-type: none"> • I believe brand is an important indicator of quality. • I find brand important. • I am willing to pay more for a brand or a company's reputation. • I am imitative, making purchases similar to those of others whose opinions I value. • I have my favorite brands to purchase or enjoy. • I prefer to buy brands that family and friends use that also meet their social needs.
Explorer	<ul style="list-style-type: none"> • I have a wide range of interests. • I am attached to new and different experiences. • I continue to seek challenges. • I am a practical person who values self-sufficiency, but is motivated by self-expression. • I compare to see what new has come out and whether it is any different. • I am concerned with social issues and am open to a change. • I am slow to try new products and ideas.
Belonger	<ul style="list-style-type: none"> • I enjoy living in the traditional context of family, practical work, and physical recreation. • I see myself a pro-American. • I hold deeply rooted moral codes that I interpret literally. • I respect authority and the status quo.
Innovator	<ul style="list-style-type: none"> • I spend a lot of time thinking about my appearance and select clothing that reflects my self-image. • I am concerned about functionality, value, style and packaging in a purchase decision. • Image is important as an expression of taste, independence, and character. • I believe money defines success.



Outside of specific food-related travel (such as food festivals), there is very little data to provide more than generalizations about tourists and their food-related habits. Overall, income, age, marital status, and education are the most significant predictors of the tourist's food consumption. Increases in education, age, and income tend to support higher interest in acquiring knowledge and a higher propensity to travel for food-related experiences (Symons, 1991).

In a general tourist survey in Charleston, South Carolina, MacLaurin, Blose, and Mack (2007) found that a large percentage of their respondents comprised a potentially sizeable food-based market and included consumers with interests across a wide variety of food tourism activities. In Charlotte, North Carolina, Green and Kline (2013) found that the majority of visitor respondents (61.7%) considered themselves foodies (7–10 on the scale), 28.2% considered themselves moderate foodies (4–6 on the scale), and 10% did not consider themselves to be foodies (0–3 on the scale).

In a study of four coastal South Carolina counties, Shenoy (2005) found that food tourism comprises five dimensions or classes of activities, including dining at restaurants known for local cuisines, purchasing local food products, consuming local beverages, dining at high quality restaurants, and dining at familiar chain restaurants and franchises. Neophobia helped explain a tourist's low participation in activities such as dining at restaurants serving local food, experiencing local beverages, and the preference for eating at fast-food restaurants and chain restaurants but did not affect eating at high-end restaurants. Segmentation of tourists revealed the presence of three clusters: the culinary tourist, the experiential tourist, and the general tourist. The culinary tourist frequently dines and purchases local food, consumes local beverages, dines at high-class restaurants, and rarely eats at franchisee restaurants. The culinary tourist segment is also more educated, earns higher incomes than the other two segments, and is characterized by its variety-seeking tendency toward food and the absence of food neophobia.



Tourism in the West

Colorado Agritourism Study

Gascoigne, Sullins, and Thilmany-McFadden (2008) conducted a study to better understand Colorado agritourism attendees and profile them according to their interests and demographics. From 2005 to 2006, 895 in-person visitor survey responses were collected at agritourism enterprises. On average, visitors were 46 years old and somewhat racially homogeneous (90% identified themselves as white); 37% earned

incomes over \$75,000 per year and 73% were married. Of those married, 28% were young couples with no children and 42% were families with children.

Respondents were grouped into five “agritourist types.”

Group 1: Loyal Colorado Enthusiasts (13% of travelers)

This group includes parents of older children and couples who return often based on previous agritourism experiences. They have the largest share of participants in outdoor recreation on farms and ranches during the summer. These tourists are likely to camp and stay within a few hundred miles of home and to participate in a diverse set of agritourism activities.

Group 2: Family Ag Adventurers (17% of travelers)

This group is the most promising in terms of agritourism. They plan their travels around specific agritourism outings and participate in unplanned activities several times per year. They tend to be middle-income, travel in large groups, and travel with children. These tourists are willing to visit local agritourism enterprises and travel long distances to reach a variety of agritourism destinations. They travel in the summer and fall.



Group 3: In-State Explorers (30% of travelers)

This group is composed of Coloradans who frequently explore the state by car on short outings. They typically don't travel with agritourism activities in mind but participate in unplanned activities. These tourists tend to come from upper-middle-income households and planned to travel in the subsequent year. The culinary events in which they currently participate may be the best means to extend their visitation and spending into other agritourism experiences.

Group 4: Out-of-State Activity Seekers (4% of travelers)

This group is most likely to spend longer trips in hotels, resorts, second homes, or bed and breakfast accommodations. Their travel is spread more evenly across all four seasons but they had no plans to visit Colorado again the following year. This group is primarily middle- to upper-middle-class individuals traveling in smaller parties. They enjoy participating in numerous outdoor activities and report some of the highest interest across all agritourism activity groups. However, they are more likely to engage in agritourism as a secondary or unplanned activity.

Group 5: Accidental Tourists (36% of travelers)

This group travels for non-recreational business, educational, or convention activities. Not seeking agritourism activities.

The Colorado agritourism study found that larger groups participating in agritourism are more likely to plan their trip itineraries beforehand, including agritourism activities. All of the groups used local and business websites to plan their holiday but were less likely to use national websites. Tourists attracted

to an area by its natural amenities also tended to participate in agritourism activities in the same area. Finally, there is a need to link marketing for agritourism enterprises to natural parks, forests, and recreation areas, such as representing them in park brochures and at visitor centers. In addition, private enterprises should describe the natural aspects of their operations in their marketing materials.

Utah Food Tourism Study

Data were collected through in-person tourist (non-Utah resident) surveys distributed in the summer of 2013 and winter of 2014 at twelve sites in Utah including tourist information centers in gateway cities, entrances to national parks, airports, ski areas, and convention and visitor centers. The survey was pretested with Utah State University (USU) alumni attending a week-long “summer college” on the USU campus in Logan. Four trained surveyors wearing USU t-shirts conducted the interviews, each asking every third person passing by to complete the survey. A total of 700 usable surveys were completed. No data were collected on those who refused to participate in the survey and no incentives in terms of gifts, cash, coupons, etc. were provided to encourage participation.



Demographic results show that 68% of the respondents were married, 48% female, and the average age was 50 years. The average annual income in 2012 was \$103,000, and 84% of respondents reported their ethnic background as white. The respondents’ average length of stay in Utah was 10.6 days, and they travelled in groups of 4.5 people (2.9 adults and 1.6 children) on average. One-third of respondents (30%) had children under the age of 18. The primary reason for visiting Utah was to participate in outdoor activities (37%), followed by visiting cultural/heritage sites (21%), business travel (14%), visiting national parks (8%), and agritourism activities (8%). The internet was the most common way that respondents researched or booked their trip, followed by other (14%), and brochures (10%). Almost one-third came to Utah as an annual tradition (32%).

Respondents were grouped into four “tourist types.”

Group 1: Large Family Trip (9%)

The average age of this group is 52 years old, 67% are married, and 14% have a graduate degree. They travel in the largest groups comparatively (on average 4.8 people) and have visited Utah many times, staying five days on average. About 52% use the internet in trip planning, and they are unlikely to use brochures. They are unlikely to participate in outdoor recreation or visit national parks. This group is the most likely to participate in agritourism activities when traveling and to participate in things like canning, composting, and gardening when at home.

This group tends to be more male than female, is the least likely to be married, and travels in the smallest groups (average of 2.8 people). They are comparatively the least educated, and they average 48 years old. They spend the least time in Utah (average of 4.7 days) and are the most likely to have used a brochure in trip planning. They are highly interested in outdoor recreation and spend about 22% of the total trip budget on food but have the smallest trip budget of all the groups. They are least likely to seek out local foods when traveling.

Group 3: Sophisticated Food Travelers (30%)

This is the oldest group (average age of 53) and the most likely to be married. Nearly 60% have graduate degrees, making this the most educated group. Around 74% use the internet in trip planning, and the average trip lasts 14.3 days. This group is the most likely to travel for business reasons, but they also visit national parks and cultural and heritage sites. They spend about 22% of their total trip budget on food. This group is the most likely to seek out local foods when traveling and participates in sustainable behaviors (recycling, etc.) when at home. At home, they do a lot of their own cooking and buy local foods.

Group 4: Food and Culture Pilgrimage (22%)

This group is the youngest and about 64% are married and female. The average education level for this group is a bachelor's degree. They travel in groups of about 3.8 people. They are the least likely to use the internet in trip planning, as this group travels mostly based on tradition. They are likely to have visited Utah previously. This group is the most likely to visit culture and heritage sites. They spend about 15% of their trip budget on food and spend the most overall per person (\$960) on what tends to be a 10.5 day vacation. This group is the most likely to seek out food experiences and buy food gifts when traveling and to try new foods and local foods when at home. They belong to beer and wine clubs.

A sizable number of the tourists who responded to the survey were members of organized food-related groups (18%). Of those involved in organized groups, 27% were members of wine or beer clubs, 22% were members at a cooperative grocery store, 10% and 11% were involved in slow food and dining clubs. Only 8% were involved in cooking clubs, but 15% were members of a CSA. Membership in any of these organizations demonstrates a sincere interest in alternative food options and perhaps a desire to interact with others with similar interests.

In order to understand how different types of food- and agriculture-related activities are linked in the minds of tourists, a statistical technique called factor analysis was used to group food-related behaviors. For example, a traveler may choose a destination based on variables such as the cost of travel, lodging, and food that all share an underlying factor such as price. Table 3.3 shows the factors that emerged from an analysis of tourist behaviors at home and when traveling. From the results, we can see that tourists focused on food experiences at home will often try new foods/recipes, eat ethnic foods, and also try unusual or unknown produce items at home. When traveling, we see that tourists interested in agritourism will spend the night at a farm, visit farms, and participate in agritourism activities.



Table 3.3: Food Related Behaviors At Home and While Traveling

Behaviors at Home		Behaviors While Travelling	
Local Foods		Food Tourism	
	Shop at farmers' markets		Try new foods
	Buy organic produce		Try local recipes
			Buy food-related gifts
Food Experiences		Agrotourism	
	Try new foods/recipes		Spend a night at a farm
	Eat ethnic foods		Agrotourism activities
	Try new/unkown produce		Visit Farms
Do it Yourself		Local Foods	
	Gardening		Buy local foods
	Canning/Preseving		Shop at farmers' markets
	Composting		
Food Connections			
	Recycling		
	Cook at home		
	Buy local foods		



Overall, Utah visitors are highly educated, married, and seeking outdoor recreation, cultural/heritage experiences, and agritourism activities. About 50% of the sample seems to have good potential for participating in food and agritourism activities. Internet-based promotional programs appear to be the most useful for engaging travelers during the trip-planning phase. Quality experiences are also essential in encouraging tourists to make repeat visits to Utah. There is particular potential in linking marketing for food tourism to outdoor recreation destinations. All materials should describe the proximity of food tourism opportunities to primary destinations, such as national parks, ski resorts, and Salt Lake City.

Tourism Promotion Options and Resources

Promotion through business websites, brochures, flyers, and other publications is crucial to reaching tourists. Business or food tourism brochures and flyers can be left with hotels, visitor centers, parks, and resorts. Memberships with local chambers of commerce, visitor/convention bureaus, and local food organizations can be invaluable to promoting activities and establishing multi-entity partnerships and “destination” marketing campaigns. Advertising or business listings on websites—such as state/regional



tourism, local food, and trip/vacation booking—is highly recommended due to tourists’ propensity to find their travel information online. Other publications for advertising include tourism publications at the local, national, and international level, heritage/scenic trail maps, and attraction publications at national parks, ski resorts, hunting lodges, etc.

Tourist information centers are one important way for food tourism and agritourism entrepreneurs to reach potential customers. It’s important to understand how tourists arrive and what activities they seek. There are Utah Welcome Centers in Brigham City, Echo, Salt Lake City, Jensen, Thompson Springs, and St. George. Other notable visitors’ centers are the Las Vegas Visitor Information Center, the Greater Las Vegas Visitor Center, and the Nevada Welcome Centers located in Boulder City, Mesquite, and Wendover.

Each state publishes tourism statistics and visitor information which can be used to assess market size, visitor demographics, and travel preferences. The research and statistical resources for Idaho, Nevada, and Utah are provided below:

- Idaho Commerce Department, tourism research at <http://commerce.idaho.gov/tourism-resources/tourism-industry-development/research>
- Utah Tourism Industry Association, research and information at http://utahtourism.org/?page_id=9
- Travel Nevada, visitor statistics at <http://travelnevada.com/industry/visitor-statistics>

Region	Organization	Type	Contact
Idaho	Idaho Preferred	Local food	www.idahopREFERRED.com
	Visit Idaho	Tourism	www.visitidaho.org
	Idaho Travel Guide	Tourism	www.idahobeautiful.com
Nevada	Nevada Grown	Local food	www.nevadagrown.com
	Grow your Own	Local food	www.growyourownnevada.com
	Nevada Tourism Department	Tourism	www.travelnevada.com
Utah	Utah’s Own	Local food	www.utahsown.org/
	Local First Utah	Local food	www.localfirst.org
	Utah Tourism Department	Tourism	www.utah.com
National	Slow Food USA	Local food	www.slowfoodusa.org/
	Agritourism World	Local food	www.agritourismworld.com
	Brand USA	Tourism	www.thebrandusa.com
	Discover America	Tourism	www.discoveramerica.com



Worksheet 3.1: Customer Segmentation

Develop a profile of the customer(s) you intend to target by market segment. Note the geographic, demographic, and value characteristics of each segment. Be sure to describe customer needs and preferences regarding your product/service.

Enterprise/Product _____

Customer Segment: 1 _____ 2 _____ 3 _____

Geographic
(location, state,
county, etc.)

Demographics (age,
education, income,
families, etc.)

Values (open space,
sustainability, local
sourcing, etc.)

Needs/Preferences

Worksheet 3.2: Competition

List the competitors for each of your markets. Describe their marketing strategies and the prices they charge. Note any advantages and disadvantages you may have with respect to your competition. Then, develop and describe your strategy for competing or positioning your business in the marketplace.

Enterprise/Product: _____

Market Segment: 1 _____ 2 _____ 3 _____

Competitor names _____ _____ _____

Products/services _____ _____ _____

Major characteristics _____ _____ _____

Price range _____ _____ _____

Our advantages _____ _____ _____

Our disadvantages _____ _____ _____

Competition Strategy:

Worksheet 3.3: Promotion Plan

Choose a promotional approach (product image, benefits, brand, etc.) for each customer segment. Then use your information about customer needs and preferences to develop a promotional message for this product. Next, think about what advertising tools and delivery methods you can use to communicate your message. Describe how often you intend to promote your product/service and communicate with customers (timing and frequency). It may be helpful to map out an advertising plan that corresponds with slow demand periods or peak product availability. Finally, summarize your promotion strategy for this product/service.

Enterprise/Product: _____

Customer Segment:	<u>1</u> _____	<u>2</u> _____	<u>3</u> _____
	_____	_____	_____
Approach	_____	_____	_____
• Product image, benefits, brand, etc.	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
Message:	_____	_____	_____
• "Slogan"	_____	_____	_____
	_____	_____	_____
Tools:	_____	_____	_____
• Flyers, websites, etc.	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
Delivery:	_____	_____	_____
• Where and how	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
Timing/Frequency:	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

Promotion Strategy:

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Module 4

Producing and Selling Value-Added Products

Module Objectives

This module will enable participants to:

- Determine whether or not their food products are considered “processed.”
- Increase their understanding of the laws and regulations that apply to food product processing at both the state and federal level.
- Practice proper food safety and sanitation procedures during the processing of food products.
- Create FDA-compliant food labels for their products

Introduction

There are many ways to add value to a commodity, but the term “value-added” usually refers to products that have experienced some type of post-harvest processing. Common value-added foods include

- Dehydrated or frozen fruits and vegetables;
- Jams, jellies, and preserves;
- Hot sauces, salsas, and tapenades;
- Pickled vegetables;
- Herbed oils and vinegars.

Different regulations, safety concerns, and processing requirements apply to each of these general categories of value-added foods. Depending on the state in which you are located and the size of your company, you must also comply with labeling requirements. Whether you plan to sell your products at a roadside stand, a farmers’ market, or through retail outlets such as grocery stores, it is very important to consider all of these aspects before beginning production of a value-added food.

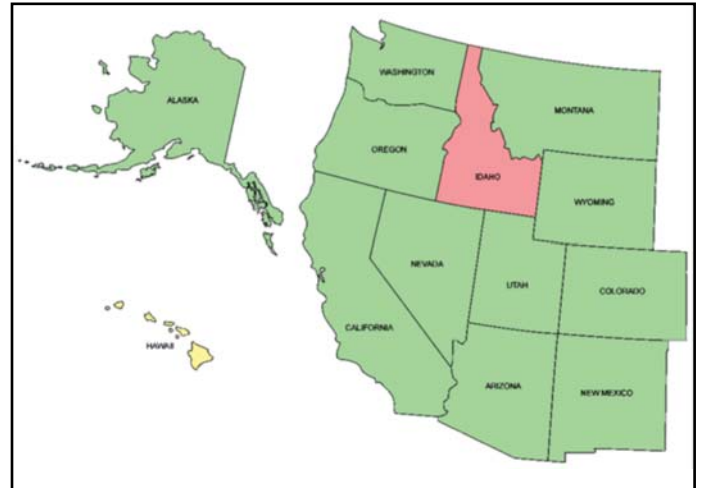


Figure 4.1: States with Formal Cottage Food Laws
Green: States with formal Cottage Food laws; Yellow: Formal legislation pending; Red: No formal legislation.

To protect both growers and consumers, most states require that you register and conduct the processing in an approved kitchen or other facility.

Regulatory Considerations

Unprocessed produce can usually be sold with very little planning. In many states, you do not even need to register. In others, only certain types of produce are regulated. It is recommended that you check with your state Department of Agriculture or local health inspector to determine which regulations apply to you.

Processed produce is more highly regulated because the chance for foodborne illness increases when foods appear ready-to-eat. To protect both growers and consumers, most states require that you register and conduct the processing in an approved kitchen or other facility. This often requires that you meet both with a representative of the state Department of Agriculture and a local health inspector.

The exact definition of “processed” depends on the state and may even be left open for interpretation by your inspector. In general, anything that changes the food from its original form is considered processing. In some cases this is obvious, like processing berries into jam.

In others, it can be difficult to determine. The Food and Drug Administration (FDA) issued a Proposed Rule for produce growers in 2014, providing a more clear description of what should be considered processing and what should be considered a normal and customary part of harvesting. Depending on the wording of the FDA’s final rule, there may be changes in what is required by many state Departments of Agriculture. It is always advisable to check with your inspector.



Table 4.1: Processing Activities

Not Considered “Processing”	May or May Not Be Considered “Processing”	Always Considered “Processing”
Removing dead or wilting leaves from whole, intact produce (such as lettuce)	Removing outer shells or husks from produce	Removing outer skins, peels, or rinds from whole, intact produce
Brushing or rinsing dirt off whole, intact produce	Rinsing or washing produce with a tested culinary water source	Cutting, slicing, sectioning, or otherwise dividing intact produce
Packaging whole, intact produce in burlap or net bags, plastic clamshells, etc. to be sold by weight or count	Dehydrating uncut, intact produce	Cooking or heating any type of produce, including dehydrating cut or sliced produce

Processing Options

All western states allow the sale of non-hazardous home-produced foods in some form, but not all have formalized Cottage Food laws. These laws may be very different from one state to the next, and the kinds of foods that are allowed in one state may not be allowed in another. Processing food in a home kitchen is less expensive than renting or building commercial kitchen space, but there are stricter limits



of the kinds of foods that can be made and where they can be sold. In general, home-produced foods can be sold at roadside stands, farmers' markets, and on-farm stores. Depending on the rules in your state, they may also be sold through grocery stores, boutiques, or restaurants. A list of contacts for information on home food production in your state can be found at the end of this chapter.

All other types of foods must be produced in an inspected, registered facility. Typically, the state Department of Agriculture will conduct food facility inspections, but local health departments sometimes approve food facilities as well. Any health department approved kitchen can be used for most kinds of food processing, including restaurants, cafeterias, and incubator kitchens. All food processing facilities must register with the FDA, and you may also need to register with or obtain a license from your state Department of Agriculture.

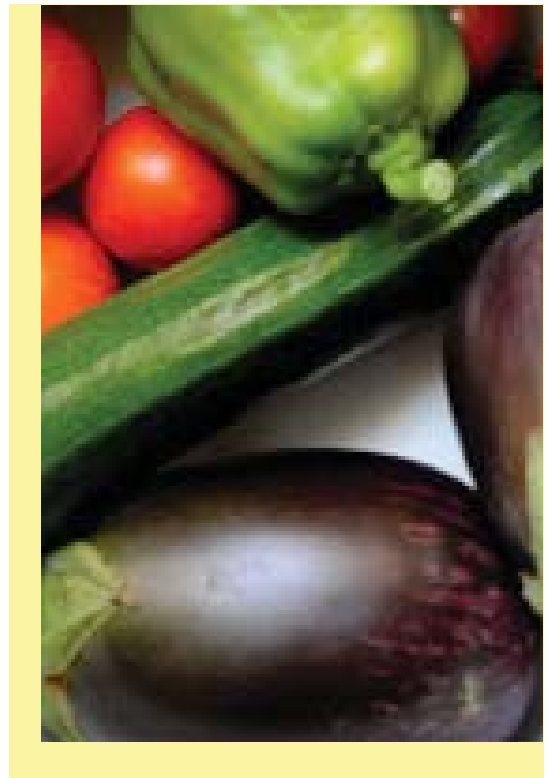
Another option is to work with a *Contract Packager*, or co-packer. Co-packers are registered food facilities that make products of their own but will also process foods for others during their down time. Co-packing is more expensive, but it can be a good way to use blemished or unsellable produce at the end of the growing season. Each co-packer has different requirements, capabilities, and minimum run sizes. For example, some may only work with plastic bottles while others will only work with glass.

Using a certified food establishment is another way of producing value-added products. A certified food establishment could be a restaurant kitchen, incubator kitchen, or even an on-farm certified kitchen. Potentially hazardous foods can be produced in this type of kitchen, but you must get approval from your state department of agriculture or governing agency. On-farm certified kitchens may even be exempt from some FSMA record-keeping requirements.

Sanitation and Food Safety

Before you begin production, you need to establish guidelines to ensure that your food product is safe for consumers to eat. Start by asking yourself these four questions:

1. How will you clean and sanitize your workspace?
2. How will you prepare or cook your product to minimize safety risks?
3. How will you package/protect your product to prevent microbial growth or recontamination?
4. How will you store and display your product to prevent or minimize microbial growth?



When we talk about sanitation and food safety, there are three important distinctions that need to be made. Clean means free of visible dirt or debris. This applies to floors, ceilings, and walls and to whole, unprocessed foods. Sanitary means free of dangerous or disease-causing bacteria. This applies to countertops, equipment, and utensils. It also applies to many processed foods. When this is not possible, we use packaging and storage conditions to prevent the bacteria from multiplying. Sterile means free of all viable bacteria and spores. This is an unrealistic goal in food; the best we can do is commercial sterility, which means 99.99% of bacteria and spores are destroyed. This applies to many canned foods.

Food safety begins with your production space. Processing areas should be kept clean when not in use and should be sanitized before production begins. The FDA regulates the kinds of sanitizers that can be used and how strong they can be. The most common sanitizer in kitchens is bleach, but quaternary ammonium and iodophores are used in many processing facilities. Bleach solutions of up to 200 ppm (parts per million) can be used without having to rinse surfaces or equipment. To properly mix a bleach solution, use 1–3 teaspoons of unscented household bleach per 1 gallon of water. Check the concentration with a test strip, available through restaurant supply stores. The water used for bleach solutions should be slightly cool, about 70°F. For other sanitizers, follow the manufacturer's instructions. During production, periodically check the strength of your sanitizing solution using a test strip. If it is losing its potency, discard it and make up a fresh solution.

Steps for cleaning and sanitizing:

1. Clean surfaces and equipment by removing any visible dirt or food waste.
2. Wipe surfaces with warm water to remove fats or oils.
3. Wipe surfaces with sanitizing solution and let sit for two minutes.
4. For highly concentrated sanitizing solutions, rinse with fresh water.
5. Clean and sanitize periodically during production.

Food Safety

There are three categories of food contaminants identified by the FDA: *chemical*, *physical*, and *biological*. *Chemical* contaminants include chemical residues from pesticides, sanitizers, and naturally occurring toxins from foods like mushrooms. Flakes of non-stick coatings and enamel from pots and pans are also considered chemical contaminants. *Physical* contaminants include anything that may cause physical injury if bitten or swallowed. There are many types of physical contaminants that can get into foods, from rocks and dirt to fingernails, hair, broken glass, and metal shavings. Several chemical and physical contaminants can be avoided by carefully checking equipment, utensils, and cookware for signs of damage or deterioration. Glass containers or cookware and wooden utensils should not be used in food processing.

Biological contaminants, which are by far the largest concern in processed foods, can be divided into three groups: *fungi*, *viruses*, and *bacteria*.

Biological Contaminant	Common Foodborne Examples	How Hazardous?	Common Controls
Fungi	Yeast Mold	Responsible for food spoilage – very few types cause illness	Grow in a wide variety of conditions. Use low oxygen/vacuum packaging or a chemical inhibitor.
Viruses	Hepatitis A Norwalk	Cause foodborne illness, ranging from short-term to chronic diseases	Must be in host (us) to grow. Cannot be controlled with refrigeration – proper hygiene and sanitation are critical.
Bacteria	<i>Staph</i> <i>Salmonella</i> <i>E. coli</i> <i>Listeria</i> <i>Clostridium botulinum</i>	Cause foodborne illness, ranging from short-term to chronic disease states to death	Can grow and multiply in food. Different bacteria require different controls – FATTOM.

To control bacteria growth, it is important to understand what bacteria need to survive. The acronym **FATTOM** is often used to help remember the main six factors that affect bacterial growth and survival:

Food, **A**cid, **T**emperature, **T**ime, **O**xygen, and **M**oisture. Some of these affect the bacteria’s ability to survive. In other words, the right conditions will kill bacteria. Whenever possible, food products should be processed and packaged in a way that destroys bacteria. Other conditions will not destroy bacteria but can prevent them from growing. When it is not possible to destroy bacteria during processing, storage conditions can be used to keep bacterial numbers low.

Factors Affecting Survival of Bacteria

Food: Food affects bacteria’s ability to survive. Bacteria have specific nutritional requirements. Unfortunately for us, the nutritional requirements of bacteria that cause foodborne illness are very similar to our own. We can limit the growth of disease-causing, or pathogenic, bacteria by adding competing bacteria that will not cause illness. This is the basis for fermenting foods and is the reason yogurt and cheese have a much longer shelf life than the milk from which they are made.



Moisture: Bacteria must have water available or they will die off. One of the best ways to produce safe food is to limit the amount of available water. Water Activity is a measurement commonly used in food processing. It tells us how much water is available for bacteria, not how much is actually present. Water activity can be lowered by removing water, as in shelf-stable dehydrated foods. Water activity can also be lowered by chemically tying up the water. This can be done by adding salt or sugar, as in jams, syrups, and jerky. The FDA considers foods with a water activity below 0.85 to be shelf stable, meaning they do not require special packaging or refrigeration. From a regulatory standpoint, this is the easiest and safest type of food product to make.

Atmosphere: Some bacteria are highly sensitive to the presence of oxygen. For anaerobic bacteria like *Clostridium botulinum*, even a small amount of oxygen is toxic and will destroy the bacteria. These bacteria defend themselves by forming spores when they sense oxygen is present. In this form the bacteria do not grow and multiply but act more like a seed. When the conditions are right, the spore wakes up and becomes a growing, multiplying bacterium again. When it grows, *Clostridium botulinum* produces the botulism toxin, a potent neurotoxin that can result in death. In most foods, enough oxygen is present to keep *C. botulinum* from growing.

But no oxygen is present in canned or bottled foods, so we must rely on other ways to keep *C. botulinum* from growing. Acid can be used to keep *C. botulinum* spores from waking up (this is discussed below). In foods with too little acid, high temperature and pressure canning techniques must be used to destroy the spores. Because of this, low-acid canned foods, such as evaporated milk and canned beans, are the most highly regulated category of processed food. Before you begin producing a low-acid canned food, you will need the approval of a Process Authority.

Temperature and Time: Some bacteria can grow in temperature extremes where no other forms of life will survive, but the bacteria that cause foodborne illness grow fastest at temperatures close to our body temperature. Bacteria can be destroyed by heat but not by cold. Bacteria stop growing and multiplying at low temperatures, but they are simply preserved and will start growing once the temperature warms up again. The longer food spends in the Temperature Danger Zone, between 40°F and 140°F, the more opportunity there is for bacteria to grow. Many pathogenic bacteria double in number every 20–40 minutes. This makes it important to quickly heat foods to the proper processing temperature, and quickly chill foods that will be sold refrigerated or frozen. The general rule is to limit the time food spends in the temperature danger zone to four hours total.



Regulations Covering Processed Foods

Acid, Acidified, and Low-Acid Food Regulations

Acid foods are defined as canned or bottled foods with a natural pH that is less than 4.6 and that do not contain more than 10% low-acid ingredients. A FDA Food Processor registration is required to produce acid foods. Examples of acid foods include canned tomatoes and other tomato products, canned fruits, flavored vinegars, vinegar and oil dressings, low-sugar fruit preserves, and fermented foods (no other acid added).

Acidified foods are foods with a natural pH greater than 4.6 to which additional acid has been added, lowering the pH to below 4.6. These foods require a Process Authority letter and regular filings. In addition, FDA Food Processor registration and FDA Acidified Food Processor registration is required. Examples of acidified foods include salsa and spaghetti sauces, most hot sauces and barbecue sauces, Worcestershire sauce, pickled vegetables, mayonnaise and salad dressing, and some vegetable juice blends, such as Clamato juice.

Low-acid foods are those foods with a natural pH is greater than 4.6 to which no acid is added. These foods also require a Process Authority letter and regular filings. In addition, FDA Food Processor registration and FDA Low Acid Food Processor registration is required. Examples of low-acid foods include canned vegetables; canned beans and legumes; canned or bottled olives; vegetable juices; canned vegetarian soups and broth; evaporated milk; and canned tuna, clams, and shrimp.



Labeling Requirements

All processed, packaged foods must carry a label that meets FDA regulations (or USDA regulations if the product contains more than 3% meat). For foods made in a cottage kitchen, additional state regulations will apply. Detailed regulations covering labeling, processing, and in some cases packaging can be found in Title 21 of the Code of Federal Regulations (21CFR). This workbook gives a brief overview of the requirements for food labels. For more detailed information, you can download a copy of the “Guidance for Industry – A Food Labeling Guide” booklet from the FDA website.

Some products, such as candies and syrups, dry mixes, roasted nuts, and dried pasta are FDA exempt. FDA exempt products are refrigerated, frozen, or the available water is less than 0.85. Other examples of FDA exempt foods include spices, herbs, and flavorings; full-sugar jams and jellies; dehydrated fruits and vegetables; and some barbecue sauces. Although these products are FDA exempt, a FDA Food Processor registration is required.

Principal Display Panel Components

Statement of Identity: Many foods have a legally established name that must be used. These names can be found in Section 101.3 of 21CFR. If your product falls into one of the following categories, you must use the name designated in these regulations. All others can use a usual or common name, as long as it is not misleading.

§ 131 Milk & cream	§ 146 Canned fruit juice	§ 161 Fish & shellfish
§ 133 Cheese	§ 150 Jellies & preserves	§ 163 Cacao products
§ 135 Frozen desserts	§ 152 Fruit Pies	§ 164 Tree nuts & peanuts
§ 136 Bakery products	§ 155 Canned vegetables	§ 165 Beverages
§ 137 Cereal flours	§ 156 Vegetable juices	§ 166 Margarine
§ 139 Macaroni & noodles	§ 158 Frozen vegetables	§ 168 Sweeteners & syrups
§ 145 Canned fruit	§ 160 Eggs & egg products	§ 169 Dressings & flavorings



Net Weight Statement: The total weight of the food must be listed. This does not include the weight of the package. If your product is liquid or is more easily measured by volume, volume can be used instead of or in addition to weight. There are specific regulations for larger packages, which require that the weight be listed in pounds as well as ounces. These regulations can be found in Section 101.105 of 21CFR.

Information Display Panel Components

Ingredient Statement: Ingredients must be listed in order by weight, not volume, from highest to lowest. For some common ingredients such as flour and sugar, tables can be found in cookbooks or culinary arts websites to help you convert volume to weight. Others, such as diced vegetables, you will need to weigh yourself. If you are using a commercial product as an ingredient, you must list all of the sub-ingredients in parenthesis following the name of the ingredient you use. This information can be taken directly off of the ingredient's package. For example, the ingredient statement for a cake recipe from a cookbook might look like this:

Ingredients: Enriched bleached flour (wheat flour, niacin, iron, thiamin mononitrate, riboflavin, folic acid), eggs, sugar, butter (cream, salt), shortening (soybean oil, fully hydrogenated palm oil, partially hydrogenated palm and soybean oils, mono and diglycerides, TBHQ and citric acid [antioxidants]), leavening (sodium acid pyrophosphate, baking soda, calcium monophosphate), vanilla, salt.

Other requirements for the ingredient statement include:

- The function of any preservatives must be clearly described. For example, "Ascorbic acid to help maintain color".
- To save space on the label and keep some parts of your recipe proprietary, most spices and herbs can be combined and listed by their total weight as "Spices." Onion, garlic, celery, or other vegetable powders or pieces must be listed separately.
- Salt and monosodium glutamate (MSG) must also be listed separately. "Natural Flavors" or "Artificial Flavors" can also be grouped together.

- Certified artificial colors must be specified by their approved name, for example “Red 40” or “FD&C Red 40”. These are common in most household food colors and are also found in many frostings.
- Leavening agents can be listed by the total weight of all leaveners, with the names of the specific leavening agents listed in parenthesis. See the example ingredient statement above.

Allergen Statement: If your food contains certain allergens, you must clearly state this on the label. The allergens that must be listed are milk or other dairy, eggs, soy, wheat, peanuts, tree nuts (including coconut), shellfish, and fish. This is most often done by including an allergen statement immediately after the ingredient statement. For example, the allergen statement for the cake ingredient statement above would read: “Contains: Wheat, egg, milk, and soy.”

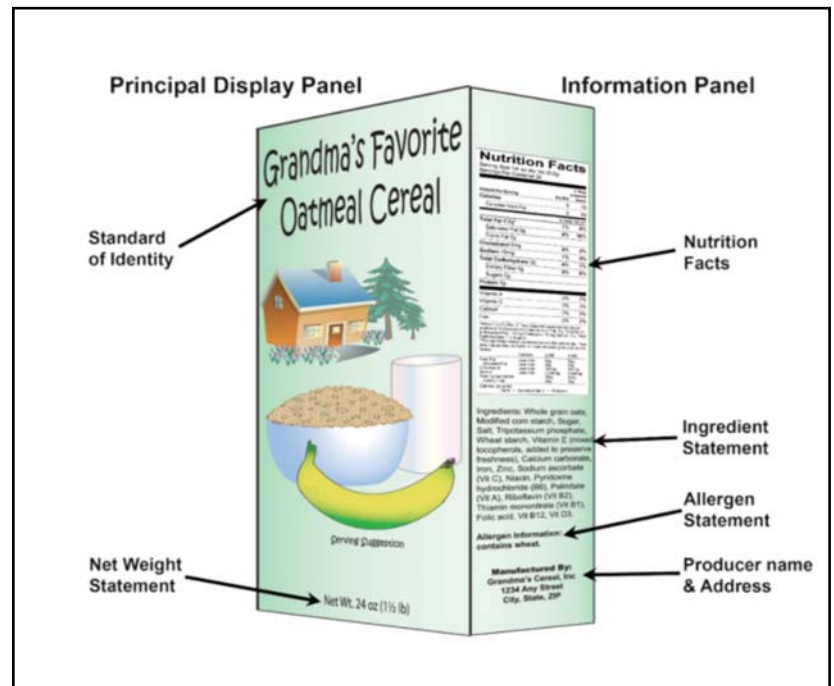


Figure 4.2: Package Labeling Requirements

Nutrition Facts Panel: Regulations for the nutrition facts panel are very complex. Fortunately, most small producers are not required to have nutrition facts (less than \$50,000 direct to consumer sales). If you choose to make any type of nutrition-related claim, you must include nutrition facts regardless of the size of your company. In 2014, the FDA began the process for revising the required components for nutrition facts panels and the required serving sizes for different categories of foods for the first time in over 20 years. As of this printing, the final rules for nutrition facts had not been released. Due to the complexity of the labeling requirements, it is recommended that you seek help from a labeling specialist with your state Department of Agriculture or your local Extension office.

Nutrition-Related Claims: The FDA allows three types of nutrition-related claims. More information on all of these claims can be found in the FDA’s “Food Labeling Guide.”

- **Nutrient Content Claims** relate to the make-up of a product and include terms such as “low,” “good source of,” “healthy,” and “antioxidant.” The specific requirements vary depending on the nutrient and the type of food.
- **Health Claims** link a specific food to a health-related condition disease and are supported by a large body of scientific research. As of 2015, there are 11 approved health claims that can be made, and specific wording is required for each.
- **Qualified Health Claims** are similar to health claims, but the scientific evidence is not as strong. These claims can only be made with a disclaimer and must follow the wording given by the FDA. As of 2015, the only approved qualified health claims are for nutritional supplements.

Organic Labeling Requirements

Organic labeling is regulated by the USDA, not the FDA. Information on the National Organic Program can be found in Title 7 of the Code of Federal Regulations. Most state Departments of Agriculture have a local organic program that can be followed in place of (or in addition to) the national program. The USDA does not require certification for organic sales < \$5000 annually, in which case you can label your product as organic but cannot use the USDA organic seal. For products that do not meet the requirements for organic labeling but contain some organic ingredients, these can be specified in the ingredient statement (e.g., “organic cherries” instead of “cherries”).

Label Statement	Requirements and Restrictions	Can Use USDA Organic Seal?
“100% Organic”	All organic ingredients, not including water and salt.	Yes
“Organic”	95% organic ingredients, not including water and salt. Cannot contain sulfites.	Yes
“Contains Organic _____”	70% organic ingredients, not including water and salt. Cannot contain sulfites.	No

Resources

After reading this chapter you may feel overwhelmed by the number of regulations covering processed foods. But these laws and regulations exist to keep consumers (including yourself) safe and informed! Remember that there is help available to you regardless of the size of your business.



Federal Resources

- FDA Facility Registration: <http://www.fda.gov/Food/GuidanceRegulation/FoodFacilityRegistration/default.htm>
- FDA Recordkeeping Requirements: <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/ucm391329.htm>
- FDA Food Labeling Guide: <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm2006828.htm>
- FDA Acidified Foods Guidance: <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/AcidifiedLACF/default.htm>
- Information on the Food Safety Modernization Act: www.fda.gov/Food/GuidanceRegulation/FSMA/default.htm

State Resources

Idaho

- Idaho Department of Agriculture: <http://www.idahoag.us/Categories/InspectionsExams/FFV/indexFFVhomepage.php>
- Idaho Health Districts (Department of Health and Welfare): <http://www.healthandwelfare.idaho.gov/Health/HealthDistricts/tabid/97/Default.aspx>
- Idaho home food production information: <http://www.healthandwelfare.idaho.gov/Health/FoodProtection/tabid/96/Default.aspx>
- Idaho Preferred program: <http://idahopreferred.com/>

Nevada

- Nevada Department of Agriculture: http://agri.nv.gov/Plant/Producer_Certification/Producer_Certification_Home/
- Nevada Health Districts (Department of Health and Human Services): http://health.nv.gov/BOH_CountyHealthDistricts.htm
- Nevada Cottage Food information:
- Southern district: <http://www.southernnevadahealthdistrict.org/cottage-food-operations/index.php>
- Carson City: <http://gethealthycarsoncity.org/environmental-health/cottage-food/>
- Washoe district: <http://www.washoecounty.us/health/programs-and-services/food-protection-services/farm-to-fork-cottage-foods.php>

Utah

- Utah Department of Agriculture and Food: <http://ag.utah.gov/food-safety-consumers/establishment-registration.html>
- Utah Cottage Food Program: <http://ag.utah.gov/food-safety-consumers/cottage-food-production.html>
- Utah Department Health: <http://health.utah.gov/epi/community/sanitation/foodSafety/>

Worksheet 4.1: Potential Food Safety Risks

Choose a product you produce or plan to produce and identify potential food safety risks for each risk type, biological, chemical, and physical for each stage of the production process.

Enterprise/Product: _____

Hazard/Risk Phase	Biological	Chemical	Physical
Production			
Harvest			
Postharvest			
Processing			
Storage			
Transportation			
Marketing			
Consumer			



Worksheet 4.2: Product Labeling Plan

Identify potential benefits and costs of labeling/certifying (organic, local, etc.) one or more of your products to determine its usefulness to your operation.

1. What direct marketing outlets do you use or plan to use?

2. If you currently certify/label your products with a third-party please describe the product type and certification agency.

3. Which products could you label/certify and with which agency/organization?

4. What benefits might be associated with implementing this labeling/certification strategy given your direct marketing outlets? (Increased pricing, access to additional markets, etc.)

5. What costs might be associated with implementing this labeling/certification strategy given your direct marketing outlets? (Membership fees, certification fees, etc.)

6. By when do you think you may be able to implement this labeling/certification plan?





Module 5

Assessing Enterprise Feasibility

Module Objectives

This module will enable participants to:

- Understand the elements of economic feasibility analysis.
- Evaluate market size and estimate volume.
- Calculate cost of production or service.
- Use break-even analysis to identify minimum required pricing and volumes.
- Compare pricing approaches and select appropriate pricing.

Introduction

Evaluating the economic or financial feasibility of a new product or enterprise is fundamental to the financial success and growth of the business. Starting relatively small with new products and variations in products is generally a good way to test the waters and verify consumer response and feedback. Finding products and activities that complement each other is often key to identifying a successful combination. For example, home-cooked “apple burgers” are not likely to be a successful draw by themselves, but combined with a U-pick experience and festival atmosphere filled with fun family activities, may provide an edge over alternatives. It is also important to determine whether the target market will be primarily local or destination consumers. If individuals are looking to travel from one destination to another, activities will need to cater to shorter time periods unless overnight lodging facilities are available nearby.



The steps involved in assessing the economic feasibility of a product or enterprise include:

- Assessing the potential demand (volume and pricing)
- Estimating the product cost of production
- Examining a break-even volume or price; and
- Choosing a pricing approach

The first step in estimating product demand is to identify a target market.

Completing these steps prior to production will provide a picture of the potential profitability of the product. A detailed financial or business plan will also improve the opportunity or chances of securing capital funding and/or access to government grants and loans.

Assess Potential Demand

The first step in estimating product demand is to identify a target market. A target market is a group of consumers who have a need for the product/service and are willing to pay a profitable price for it. In order to identify a target market(s), market research must be conducted to estimate the available customer base and purchase amount; estimate a feasible range of prices (cover production costs), and assess consumer sensitivity to price changes. Common market research methods include surveying existing customers if the business is currently functioning, conducting product/pricing trials in suspect markets, or asking fellow providers – competitors. There are also secondary data resources available from the USDA, marketing firms, and Cooperative Extension.



To demonstrate the process of assessing market size two farm tourism examples are given. The first examines a strawberry U-pick operation which caters to local customers traveling for a day or short weekend, such as in-state visitors traveling within 100 miles of their home. The second is an agritourism venture offering hay rides, farm stays, and similar experiences. The target market is destination tourists, or visitors on a long vacation to specific destinations, such as national and state parks, heritage sites, etc.



Local Tourists

If the operation plans to cater to local tourists, it must consider how large a radius it can draw from, in terms of how far customers will travel. The USDA Forest Service's National Survey on Recreation and the Environment found the average distance that U.S. individuals drove to visit a farm in 2000 was 80 miles (USDA Forest Service, 2003). Because this also included family members visiting farms that were in their family from several hundred miles away, most paying consumers will be drawn within a 50-mile radius unless no other farm visit alternatives are available to them. However, some areas in the West find the majority of their consumers travel over 75 miles to participate in U-picks, farm festivals, and related farm activities because no other closer alternatives exist for their metro area (Leones et al., 1994).

To determine the potential number of customers available within the applicable area, the population which falls into the identified target market demographics, interests, etc. must be estimated. The U.S. Census Bureau provides data related to population estimates, demographic factors, income, economic indicators, and more online at <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. The most recent U.S. census data can be searched online by state and by zip code. The information from a census search provides an indication of the ages of people in the area, household and family size, income, ethnicity, and more, all of which can provide producers with additional information about the characteristics of potential customers in the local and surrounding area.

To estimate how much product each customer might purchase, or how much they might spend per visit, examining current and historical consumption patterns can be helpful. Average annual U.S. consumption levels of several hundred foods are readily available from the United States Department of Agriculture's Economic Research Service (USDA-ERS) at [http://www.ers.usda.gov/data-products/food-availability-\(per-capita\)-data-system/.aspx](http://www.ers.usda.gov/data-products/food-availability-(per-capita)-data-system/.aspx). For some foods, consumption level information dates back to the early 1900s. Keep in mind that ERS data is for standard, conventional products only and may not be illustrative of specialty or heirloom varieties, special production methods (organic, grass-fed, etc.), or products with other unusual characteristics.

Consider the example of a producer contemplating turning a portion of an existing strawberry operation into a U-pick strawberry operation on a one acre field, with expected production around 10,000 pounds. To calculate market size for this example, the producer must figure out what volume

of strawberries would be necessary to supply all potential customers with a week's worth of strawberries. To calculate this, multiply the acres of strawberries to be grown by the predicted growth per acre and divide this by weekly fresh consumption per capita, which is the annual fresh consumption divided by 52, the number of weeks in a year. Equation 1 illustrates this calculation.

$$(1) \frac{(\text{Acres in operation}) * (\text{Output per acre})}{(\text{Average consumption per person/year}) / (52 \text{ weeks/year})} = \text{Market size required}$$

Using the numbers for this example, the proposed U-pick operation would require a market size of 64,935 consumers (1 acre X 10,000 pounds per acre / (8 pounds per year/52 weeks per year)).

The producer must consider whether or not enough consumers can be found to meet the market-size requirement. It is also important to note that these numbers are for standard, conventional strawberries and the market for a differentiated product will likely be different.

In the U-pick strawberry example, the producer may be interested in targeting families as consumers. In this case, it would be helpful to know if nearby communities have enough families to make up a portion of the 65,000 customers needed to make the U-pick operation feasible. Let's say the U-pick operation is located near Bend, OR which has 26,073 families with an average of 3.5 persons each and hence a market potential of 91,255 customers (US Census, 2010). To determine what percentage of these families might visit the strawberry farm, we estimate 40% or 36,502 customers based upon the USDA Forest Service's National Survey on Recreation and the Environment, which found that 62 million Americans visited farms one or more times in 2000 (almost 30% of the population) (Barry & Hellerstein, 2004). Additionally, the agritourism industry has been growing at a rate of around 6% annually in Europe and North America (Tchetchik, Fleischer & Finkelshtain, 2008). Tourism also tends to be relatively more important for rural and urban counties in the West relative to other regions of the United States. If the customers purchased 16 pounds of strawberries a year, potentially for freezing, canning, or other production, the operation would only need 32,467 customers, which is fewer than the estimated potential number.

Destination Tourists

For many rural areas, the local consumer base may not be large enough to support the minimum sales needed for success. However, many rural areas in the West are located between major urban centers and national or state parks that serve as a vacation destination for many foreign and out-of-state visitors. Estimating the potential size of these markets requires information on where visitors are coming from and returning to after their destination visit. As an example, consider the Grand Canyon National Park (GCNP), which attracts around 4.4 million visitors annually (see <http://www.nps.gov/grca/learn/management/statistics.htm>). Seasonal visitation is another important item to consider, and seasonal visitation to GCNP varies greatly by season. The National Park Service reports that annual visits to GCNP by season are 11%, 27%, 39%, and 23% for winter, spring, summer, and fall (see <https://irma.nps.gov/Stats/Reports/Park/GRC>).

Table 5.1 shows where these visitors stayed prior to their trip to GCNP and where they went after leaving the park. Consider a business located between Page, AZ and GCNP. The number of GCNP visitors that would pass the business location each month would average 13,567. This figure was calculated as shown in Equation (2), by taking the total number of annual visitors and multiplying it by the average percentage of visitors who visit Page before and after visiting GCNP, divided by 12 to obtain the monthly average. This calculation shows that GCNP visitation ranges from a low of around 5,970 visitors during the winter months to a high of 21,164 during the summer.

Table 5.1: Visitor Destinations Pre and Post Grand Canyon National Park

Destination	Before	After	Destination	Before	After
Flagstaff, AZ	15.5%	10.6%	St. George, UT	1.5%	1.4%
Williams, AZ	12.6%	7.3%	Scottsdale, AZ	1.4%	1.5%
Las Vegas, NV	9.4%	12.7%	Zion National Park, UT	1.4%	1.7%
Sedona, AZ	6.0%	6.7%	Jacob Lake, AZ	1.4%	<1%
Phoenix, AZ	5.3%	8.0%	Kingman, AZ	1.3%	2.1%
Tusayan, AZ	4.3%	2.4%	Tucson, AZ	1.2%	<1%
Page, AZ	3.4%	4.0%	Holbrook, AZ	1.1%	1.1%
Kanab, UT	1.9%	1.4%	Albuquerque, NM	1.0%	1.2%
Bryce Canyon National Park, UT	1.7%	2.1%	Cameron, AZ	1.0%	<1%

$$(2) \frac{(\text{Total annual visitors}) * (\text{Average percentage of visitors})}{12} = \text{Average monthly visits}$$

Imagine an agritourism business plan that requires a minimum of \$10,000 in sales each month to be viable, with expected average consumer expenditures of \$25 per person. The business would need to attract 2.9% of GCNP visitors on average to make the business plan work (this is calculated below in Equation (3), using the numbers from the example $(\$10,000 / \$25) / 13,567$). However, taking seasonality into consideration, the business would need to attract 6.7% of winter and 1.9% of summer visitors to GCNP. Given the relatively high percentage of GCNP visitors needed to make this business plan work, trying to start on a smaller scale and/or gearing up before the more heavily traveled summer months may help a venture like this succeed.

$$(3) \frac{\text{Monthly sales needed} / \text{Expected sales per visitor}}{\text{Estimated monthly visitors}} = \text{Percentage of total visitors needed}$$

Estimate Cost of Production

Understanding the cost structure of an agricultural product or farm experience venture is critical to planning, pricing, and decision making. Start by creating an enterprise budget by service, product, or product groups. Then, estimate operating costs such as seed, fertilizer, packaging, etc. Keep in mind that costs often vary with the quantity produced. In addition, estimate fixed costs, or those costs that are incurred regardless of production. This could include land payments, equipment, etc. Finally, calculate a break-even cost per unit, which will provide a lower limit for product or service pricing.

Table 5.2 provides an example of an enterprise budget for five acres of mixed vegetables. Variable costs or operating costs include land rental, fertilizer, seeds, plant starts, utilities, etc. Fixed costs also called ownership costs, include P&I payments, insurance, annual office and accounting costs, and capital recovery on all machinery, equipment, and buildings. Table 5.3 provides an overview of the equipment and machinery used in production and the calculations for annual capital recovery, insurance, and repair cost.

If the operation is already in existence, using past cost of production data is suggested. If the operation or venture is new, cost of production data from secondary sources and helpful potential competitors is suggested. The University Cooperative Extension Service in each state publishes enterprise budgets for many agricultural crops and various agritourism enterprises, and can also provide information on food based product ingredients, input costs, and local suppliers.



Break Even Analysis

Break-even analysis answers the question, “How much needs to be sold to break even?” Feasibility is determined by whether the break-even quantity fits within potential demand. It is important to calculate break-even quantity and volume across a range of prices. Alternatively, break-even analysis can be approached with the question, “What would the price need to be to break even?” If the price that would need to be charged is unrealistic, then the idea is not feasible. Again, it is important to calculate break-even prices across a range of possible volumes.

Break-even analysis can be illustrated through the following example. A basic enterprise budget for tomato production is provided in Table 5.4. The tomato operation plans to produce an initial quantity of 20,000 pounds at a price of \$0.24/lb. This represents a revenue of \$4,800 (20,000 X \$0.24). The profit, defined as revenue less expenses, is \$1,635. The break-even price would be calculated as total expenses divided by the number of units. In this case, the total expenses are \$3,165 and the number of units is 20,000 pounds. Therefore, the break-even price is \$0.16/pound (\$3,165/20,000). The break-even quantity is calculated as total expenses divided by price, or in this case \$3,165/\$0.24. Therefore, the break-even quantity is 13,187 pounds. This example illustrates that the tomatoes need to be sold for at least \$0.16/pound for the operation to be profitable. If the price in the market is given, \$0.24/pound in this case, the example illustrates that the operation would have to produce and sell at least 13,187 market quality pounds to be profitable.

Estimating Product Price

There are three major pricing approaches; cost-based, demand-oriented, and competition-oriented. However, they are not normally used independently. For example, if the price demanded in the market is less than the cost of production, then a cost-based pricing approach will not be profitable. Also, while the price of competitive products can be useful, it's optimal to design the product, service, etc. so that it is at least somewhat different from the competition, which will lead to higher market pricing.

Cost-Based Pricing

Cost-based pricing encompasses both cost-plus pricing (price equals total costs divided by the number of units) and mark-up pricing (a percentage is added to the cost of the product). Major drawbacks to cost-plus pricing are that the price isn't tied to consumer demand, there is no incentive to reduce costs, and the adjustments for rising costs

Cost Income	Total	Per Unit (Pound)
Revenue	\$ 4,800	\$ 0.24
Expenses		
Inputs	\$ 1,400	\$ 0.07
Labor	\$ 1,200	\$ 0.06
Overhead	\$ 565	
Total Expenses	\$ 3,165	
Net Income Before Taxes	\$ 1,635	
Income Taxes	\$ 605	
Net Income	\$ 1,030	

are poor. Mark-up pricing is easy and can be used when there are too many products to estimate demand effectively, but it is not tied to demand and profits are biased by pricing.

Demand-Oriented Pricing

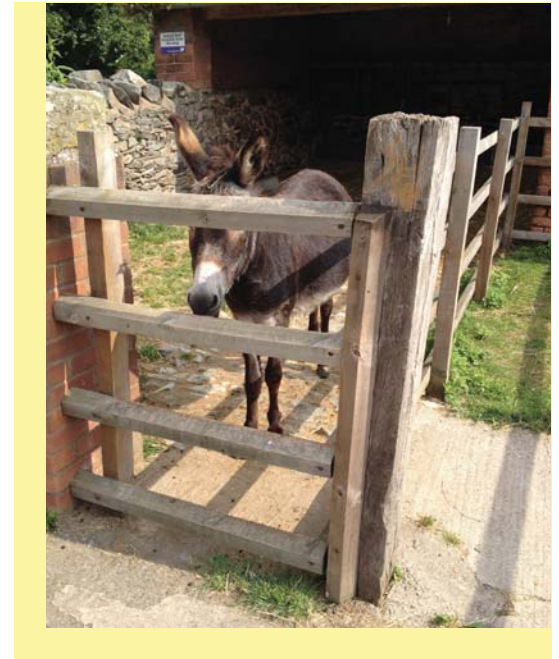
In demand-oriented pricing, the price is set at customer value (or willingness to pay). Price skimming is a practice where consumers are initially charged a high price in order to pick up consumers who are willing to pay a high amount. Gradually, the price is reduced in order to pick up consumers who are more price sensitive. Conversely, penetration pricing initially sets the price at a low level in order to capture market share, which discourages competition, and the price can be increased later when the product has become popular among consumers. Penetration pricing is very common for new food products.

Price Sensitivity

Some determinants of consumer price sensitivity include the perceived substitution effect, the unique value effect, and the switching cost effect. The perceived substitution effect occurs when many substitutes exist and may cause consumers to be more price sensitive. The unique value effect is achieved through differentiation. Consumers will be less price sensitive if the product or service is unique. The switching cost effect occurs when consumers are reluctant to change from one product to another due to a perception of large switching costs. Consumers can be reluctant to change and seek out new information about a product.

Other determinants of price sensitivity include the difficult comparison effect, the price-quality effect, and the expenditure effect. The difficult comparison effect essentially means that consumers are less price sensitive when it is hard to compare products and services. The price-quality effect is an association between a higher price and higher quality. Consumers may be less price sensitive if they are quality sensitive. The expenditure effect occurs when consumers are more sensitive to price changes on large, expensive products rather than small, inexpensive ones. For example, consumers are more sensitive to changes in the price of meat compared to changes in the price of salt.

Finally the remaining determinates of price sensitivity include the fairness effect, inventory effect, and end-benefit effect. Consumers may be willing to pay more for a product if they feel the value or value-added provided is higher than competing products. They are also willing to pay more for items when in season. For example, the demand and price of beef is higher in the summer due to outside grilling. Consumer will pay more for products that protect the environment, preserve agricultural open space, and support family farms or provide some other end-benefit.



Competition-Oriented Pricing

Competition-oriented pricing is ideal when similar products exist. Penetration pricing can be used to stimulate interests in or demand for the product by setting a price that is lower than the competing product. Parity pricing simply means that the price is set equal to competing products, and premium pricing sets prices higher than the competing product. Premium pricing is often used to signal quality to consumers and maybe an optimal strategy for high quality specialty products.

When conducting a competitive analysis consider the following:

- How many competitors operate in the market?
- Are competitors large or small? Near or far?
- What types and numbers of products do they sell?
- What pricing methods do they use?

Pricing Example: Pomegranate Juice Production

A pomegranate grower plans to produce and sell pomegranate juice retail at specialty and health stores. The grower has estimated the cost of production for each 8 oz. bottle of juice at \$0.80 and wishes to add in a 20% profit to the cost of the juice, increasing the product price to \$0.96 per bottle. The grower will sell the juice to a wholesaler who will charge a 25% margin which then increases the cost to \$1.20 per bottle. The retailer will purchase the juice from the wholesaler and then sell it to the end customer for \$1.68 a bottle, after they have added another 40% margin to the wholesale cost. Hence, the cost of the pomegranate juice has doubled from the original cost of production. Each stage of the supply chain adds their own margin to the cost and the percentages used here are the current standard for each stage.

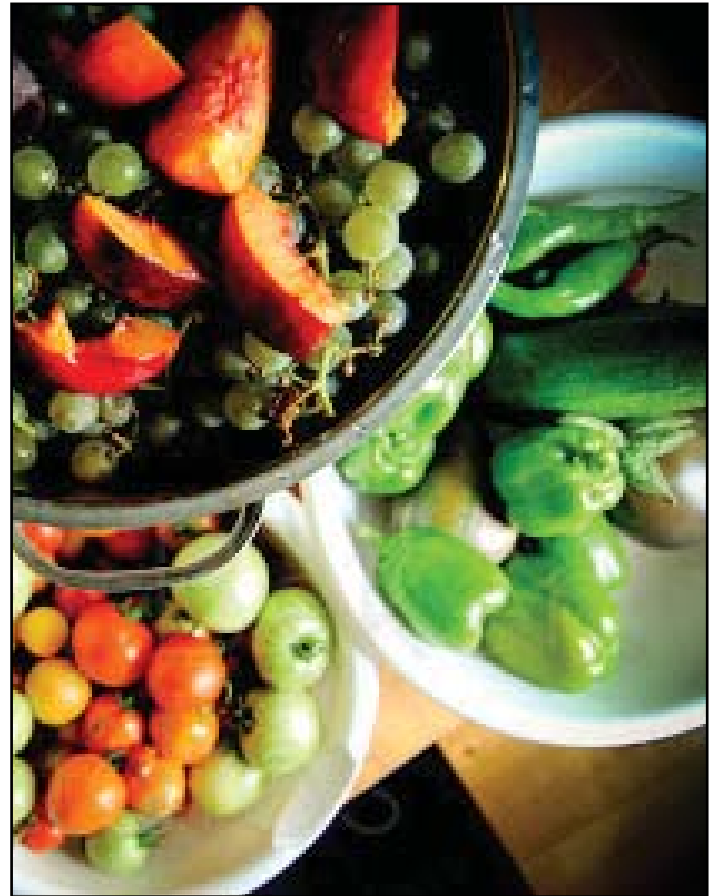


If the grower wishes to test market his or her juice at direct markets such as farmer's markets, stands, etc., it's important that he/she initially price the product close to that required by the end retail level, or \$1.68 a bottle. The pertinent question is if \$1.68 will be profitable in the market. The average price for an 8 oz. bottle of pomegranate juice in the US in 2013 was \$1.47 (ERS, 2013). This price is lower than the price required, but given that the intended market for this product is specialty

stores where consumers may value the health or other benefits of this product, they may be willing to pay much more than the US average. Product packaging and labeling which appeals to the target market and clearly identifies the products characteristics may also improve pricing.

Pricing Example: U-Pick Operation

Consider a strawberry U-pick operation where 10,000 pounds of strawberries are produced per acre with \$23,600 in revenue per acre, assuming a retail price of \$2.36 per pound (US average, ERS, 2013) If the average strawberry consumption is eight pounds per year, then the producer can expect \$18.88 in revenue for each person visiting the U-pick (8 X \$2.36). In order to determine feasibility, the producer should now consider the costs of production for the strawberries, as well as other costs such as visitor services, permits, etc. While calculating revenues and costs is relatively simple, many factors should be considered before making a pricing decision. For example, visitors may purchase more strawberries if they are attending the U-pick as a family outing or if they are interested in canning or freezing a large number of berries. Additionally, visitors may be willing to pay more if the strawberries are a specialty item. For example, the organic price for strawberries is \$3.48 per pound (San Francisco Terminal, ERS, 2013).



Pricing Resources

- Fresh and processed fruits and vegetables at <http://www.ers.usda.gov/data-products/fruit-and-vegetable-prices.aspx>
- Meats and poultry at <http://www.ers.usda.gov/data-products/meat-price-spreads.aspx>
- Organic foods at <http://www.ers.usda.gov/data-products/organic-prices.aspx>
- Drinks and meals away from home at <http://www.ers.usda.gov/data-products/quarterly-food-away-from-home-prices.aspx>

Table 5.2: Enterprise Budget for 5 Acre Mixed Vegetable Farm

	Total Units	Unit	Price/Cost Per Unit	Total Cost/Value	Total Cost/Value Per Acre
GROSS INCOME					
Sweet Corn	30,000	Ears	\$0.38	\$ 10,830.00	\$ 2,166.00
Tomatoes	8,000	Lbs	\$2.20	\$ 16,720.00	\$ 3,344.00
Peppers	4000	Lbs	\$1.40	\$ 5,320.00	\$ 1,064.00
Winter Squash	1,200	Lbs	\$0.65	\$ 741.00	\$ 148.20
Summer Squash	1,400	Each	\$0.55	\$ 731.50	\$ 146.30
Hardneck Garlic	43,000	Each	\$0.80	\$ 32,680.00	\$ 6,536.00
Onions	6,000	Each	\$0.85	\$ 4,845.00	\$ 969.00
Okra	5,400	Lbs	\$3.56	\$ 18,262.80	\$ 3,652.56
Beets	3,700	Lbs	\$2.40	\$ 8,436.00	\$ 1,687.20
Potatoes	1,200	Lbs	\$1.25	\$ 1,425.00	\$ 285.00
Leeks	2,300	Lbs	\$1.85	\$ 4,042.25	\$ 808.45
Carrots	500	Lbs	\$2.50	\$ 1,187.50	\$ 237.50
Leafy Greens	750	Lbs	\$11.00	\$ 7,837.50	\$ 1,567.50
Pumpkins	1,000	Lbs	\$0.67	\$ 636.50	\$ 127.30
Melons	270	Each	\$4.05	\$ 1,038.83	\$ 207.77
TOTAL GROSS INCOME				\$ 114,733.88	\$ 22,946.78
OPERATING COSTS					
Land Rental	5	Acres	\$ 1,000.00	\$ 5,000.00	\$ 1,000.00
Irrigation Water	1	Annual	\$ 2,000.00	\$ 2,000.00	\$ 400.00
Utilities	1	Annual	\$ 4,700.00	\$ 4,700.00	\$ 940.00
Farm Labor	3800	Hours	\$ 10.00	\$ 38,000.00	\$ 7,600.00
Packaging	1	Annual	\$ 600.00	\$ 600.00	\$ 120.00
Food Safety/Testing	1	Annual	\$ 1,042.00	\$ 1,042.00	\$ 208.40
Marketing	1	Annual	\$ 3,100.00	\$ 3,100.00	\$ 620.00
Herbicide	5	Acres	\$ 125.00	\$ 625.00	\$ 125.00
Fertilizer	5	Acres	\$ 500.00	\$ 2,500.00	\$ 500.00
Seeds	1	Annual	\$ 1,800.00	\$ 1,800.00	\$ 360.00
Plants	1	Annual	\$ 400.00	\$ 400.00	\$ 80.00
Insecticide	5	Acres	\$ 100.00	\$ 500.00	\$ 100.00
Drip Tape	5	Acres	\$ 1,000.00	\$ 5,000.00	\$ 1,000.00
Fuel & Lube	1	Annual	\$ 2,024.00	\$ 2,024.00	\$ 404.80
Maintenance	1	Annual	\$ 1,975.00	\$ 1,975.00	\$ 395.00
Miscellaneous	5	Acres	\$ 50.00	\$ 250.00	\$ 50.00
TOTAL OPERATING COSTS				\$ 69,516.00	\$ 13,903.20
INCOME ABOVE OPERATING COSTS				\$ 45,217.88	\$ 9,043.58
OWNERSHIP COSTS					
CASH OVERHEAD COSTS					
Liability/Crop Insurance				\$ 800.00	\$ 160.00
Accounting & Legal				\$ 500.00	\$ 100.00
Office & Travel				\$ 800.00	\$ 160.00
Annual Investment Insurance				\$ 236.43	\$ 47.29
NONCASH OVERHEAD COSTS (Capital Recovery)					
Buildings, Improvements, & Equipment				\$ 1,689.29	\$ 337.86
Machinery & Vehicles				\$ 4,680.00	\$ 936.00
TOTAL OWNERSHIP COSTS				\$ 8,705.72	\$ 1,741.14
TOTAL COSTS				\$ 78,221.72	\$ 15,644.34
NET PROJECTED RETURNS				\$ 36,512.16	\$ 7,302.43

Table 5.3: Investment Summary for 5 Acre Mixed Vegetable Farm

Description	Purchase Price	Percentage Use	Purchase Price	Useful Life (Yrs)	Salvage Value	Annual Capital Recovery	Annual Insurance	Annual Repairs	Annual Fuel & Lube
Buildings, Improvements, and Equipment									
Hand Tools	\$ 500.00	100%	\$ 500.00	5.00	\$ 50.00	\$ 90.00	\$ 1.83	\$ 5.50	\$ -
Implements	\$ 2,500.00	100%	\$ 2,500.00	10.00	\$ 250.00	\$ 225.00	\$ 9.16	\$ 27.50	\$ -
Packing Shed (8x10)	\$ 3,000.00	100%	\$ 3,000.00	15.00	\$ 300.00	\$ 180.00	\$ 10.99	\$ 33.00	\$ -
Cooler (6X8)	\$ 8,000.00	100%	\$ 8,000.00	15.00	\$ 800.00	\$ 480.00	\$ 29.30	\$ 88.00	\$ -
Drip Irrigation System (5 acres)	\$ 5,000.00	100%	\$ 5,000.00	7.00	\$ -	\$ 714.29	\$ 16.65	\$ 50.00	\$ -
Sub Total	\$ 19,000.00		\$ 19,000.00	NA	\$ 1,400.00	\$ 1,689.29	\$ 67.93	\$ 204.00	\$ -
Machinery and Vehicles									
1-26 HP Tractor (used)	\$ 10,000.00	100%	\$ 10,000.00	10.00	\$ 1,000.00	\$ 900.00	\$ 36.63	\$ 385.00	\$ 440.00
1-1/2 Ton Truck	\$ 30,000.00	100%	\$ 30,000.00	10.00	\$ 3,000.00	\$ 2,700.00	\$ 109.89	\$ 1,155.00	\$ 1,320.00
1-4 Wheeler	\$ 6,000.00	100%	\$ 6,000.00	5.00	\$ 600.00	\$ 1,080.00	\$ 21.98	\$ 231.00	\$ 264.00
Sub Total	\$ 46,000.00		\$ 46,000.00	NA	\$ 4,600.00	\$ 4,680.00	\$ 168.50	\$ 1,771.00	\$ 2,024.00
Total	\$ 65,000.00		\$ 65,000.00	NA	\$ 6,000.00	\$ 6,369.29	\$ 236.43	\$ 1,975.00	\$ 2,024.00

Worksheet 5.1: Potential Volume

Use your information about average product consumption, geographic location, and customer preferences to develop simple sales projections for each segment of your market. Be sure to specify the timeframe (month, season, year) for each projection. You may want to calculate your potential sales volume for best and worst case scenarios, adjusting the estimated sales volume per customer and the potential number of customers as market conditions may change. Finally, describe any assumptions upon which your sales estimates are based. Be sure to list data sources (such as surveys, market reports, online resources, etc.).

Enterprise/Product: _____

Time Frame: _____

Customer Segment:	1 _____	2 _____	3 _____
Potential number of customers: (a)	_____	_____	_____
Estimated volume per customer (b)	_____	_____	_____
Potential sales volume (a x b) =	_____	_____	_____

Market Assumptions/Research Results

Describe your marketing assumptions and research. Include information about general industry conditions, competition, and future market potential for your product.

Worksheet 5.2: Pricing

List the price range for similar products/services offered by competitors. Next, think about how you might price your product/service. Consider how much power you have to set the price and how sensitive demand is to price changes. Then describe your pricing strategies and list your low, expected, and high price under each pricing strategy alternative. Finally summarize your pricing strategy in the space provided.

Enterprise/Product: _____

Competitor/Industry Price Range:

Our Power to Set Prices: _____ Low _____ _____ Some _____ _____ High

Demand Sensitivity to Price Changes: _____ Low _____ _____ Some _____ _____ High

Price Range: **Low** **Expected** **High**

Price Strategies

Strategy #1:

	Low	Expected	High
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Strategy #2:

	Low	Expected	High
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Pricing Strategy:

Worksheet 5.3: Food Product Enterprise Budget

<u>Revenue</u>	<u>Unit</u>	<u>Price</u>	<u>Quantity</u>	<u>TOTAL</u>	<u>% of Revenue</u>
<u>Product</u>					
<i>Individual product</i>	<i>Size of package</i>	<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>
TOTAL REVENUE (d)					

<u>Expenses</u>	<u>Unit</u>	<u>Price</u>	<u>Quantity</u>	<u>TOTAL</u>	<u>% of Revenue</u>
<u>Ingredients/Materials</u>					
		<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>
TOTAL INGREDIENTS COST (d)					

<u>Processing</u>					
Materials/Services					
		<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>
TOTAL PROCESSING COSTS (d)					

<u>Packaging</u>		<i>Price per</i>	<i>Number</i>	<i>Total</i>	<i>(c / d) x 100</i>

		Unit (a)	sold (b)	revenue (a x b) = (c)	

TOTAL PROCESSING COSTS (d)

Labeling

		Price per Unit (a)	Number sold (b)	Total revenue (a x b) = (c)	(c / d) x 100

TOTAL LABELING COSTS (d)

Storage

		Price per Unit (a)	Number sold (b)	Total revenue (a x b) = (c)	(c / d) x 100

TOTAL STORAGE COSTS (d)

Labor

		Price per Unit (a)	Number sold (b)	Total revenue (a x b) = (c)	(c / d) x 100

TOTAL LABOR COSTS (d)

Promotion

		Price per Unit (a)	Number sold (b)	Total revenue (a x b) = (c)	(c / d) x 100

TOTAL PROMOTION COSTS (d)					<hr/>

<u>Distribution</u>	<i>Price per Unit</i> (a)	<i>Number sold</i> (b)	<i>Total revenue</i> (a x b) = (c)	(c / d) x 100	
TOTAL DISTRIBUTION COSTS (d)					<hr/>

TOTAL EXPENSES

Sum of each table's Total Costs (d)

Net Income before Taxes

(Total Revenue – Total Expenses)

Income and self-employment taxes

Net Profit

Worksheet 5.4: Farm Product Enterprise Budget

<u>Revenue</u>	<u>Unit</u>	<u>Price</u>	<u>Quantity</u>	<u>TOTAL</u>	<u>% of Revenue</u>
Product					
<i>Individual product</i>	<i>Size of package</i>	<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>
TOTAL REVENUE (d)					

<u>Expenses</u>	<u>Unit</u>	<u>Price</u>	<u>Quantity</u>	<u>TOTAL</u>	<u>% of Revenue</u>
Land Preparation					
		<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>
TOTAL LAND PREP COSTS (d)					

<u>Planting</u>	<u>Unit</u>	<u>Price</u>	<u>Quantity</u>	<u>TOTAL</u>	<u>% of Revenue</u>
		<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>
TOTAL PLANTING COSTS (d)					

Maintenance

	<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>

**TOTAL
MAINTENANCE
COSTS (d)**

Harvesting

	<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>

**TOTAL
HARVESTING
COSTS (d)**

Storage

	<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>

**TOTAL STORAGE
COSTS (d)**

Labor

	<i>Price per Unit (a)</i>	<i>Number sold (b)</i>	<i>Total revenue (a x b) = (c)</i>	<i>(c / d) x 100</i>

TOTAL LABOR COSTS
(d)

TOTAL EXPENSES

Sum of ALL Total Costs (d)

Net Income before Taxes

(Total Revenue – Total Expenses)

Income and self-employment taxes

Net Profit

Note: Net profit must be used to pay principal on loans, purchase new equipment, add to working capital, and withdrawals for owners.

Worksheet 5.5: Enterprise Break-Even Analysis

Calculate your break-even value or volume for each enterprise or product. Try experimenting with a range of market prices to see how they affect your break-even volume. Is your break-even value below or above the projected market price you identified?

Break-Even Volume Enterprise or Product: _____

Annul Overhead costs (a) = _____

Direct costs/unit (b) = _____

Estimated market value/unit (c) = _____

Break-even value (a+b)/(c) = _____

Estimated sales volume = _____

Upper limit or output capacity = _____

How does your break-even volume for this product compare to your projected sales volume and production capacity estimates? Can you break even?

Break-Even Volume Enterprise or Product _____

Average overhead expenses (a) = _____

Average direct expenses (b) = _____

Production volume (c) = _____

Break-even value (a+b)/(c) = _____

Estimated sales volume = _____

Upper limit or output capacity = _____

How does your break-even value for this product compare to your projected sales volume and production capacity estimates? Can you break even?



Worksheet 5.6: Partial Budget

If appropriate, calculate and record the impact of each strategy using the partial budget approach. Begin by estimating additional income (added inflows) and new expenses (additional outflows). Next, estimate any reduction in your annual expenses (reduced outflows) and income (reduced inflows) that will occur as a result of your proposed strategy or business change. Lastly, total up the positive impact of your business strategy (e) and the negative impact (f). What is the net effect on profit and cash flow? What is your return on assets?

Strategy: _____

Added Inflows	Profit	Cash Flow	Added Outflows	Profit	Cash Flow
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Subtotal	(a) = _____	_____	Subtotal	(b) = _____	_____
Reduced Outflows			Reduced Inflows		
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Subtotal	(c) = _____	_____	Subtotal	(d) = _____	_____
Total	(a + c) = (e)	_____	Total	(b + d) = (f)	_____
			Net	(e - f) = (g)	_____
			Added Interest (h)	=	_____
			Total Investment (i)	=	_____
			Return on Assets		
			[(g + h) / i]	=	_____

Worksheet 5.7: Long-Range Projected Cash Flow

Use the space below to calculate and compare your business's present cash flow and its cash flow under the alternative strategies that you are considering. Begin by estimating total cash inflows and outflows. Then subtract outflows from inflows. If the projected net cash flow is positive, then the plan will cash flow (it will be able to make debt payments on time). If the net cash flow is negative, the business alternative will have trouble servicing short-term debt.

Projected Cash Flow:	Base Plan	Strategy #1	Strategy #2
Net Income	_____	_____	_____
Depreciation expense	_____	_____	_____
Interest expenses on term debt	_____	_____	_____
Other Income	_____	_____	_____
Total cash inflows (a)	_____	_____	_____
Owner withdrawals	_____	_____	_____
Income and social security taxes	_____	_____	_____
Principal and interest payments on term debt			
Loan _____	_____	_____	_____
Loan _____	_____	_____	_____
Loan _____	_____	_____	_____
Loan _____	_____	_____	_____
Loan _____	_____	_____	_____
Loan _____	_____	_____	_____
Total cash outflows (b)	_____	_____	_____
Projected net cash flow (a - b)	_____	_____	_____

Worksheet 5.8: Risk Analysis

Use the space below to record and compare the results of a 5% decrease in market prices, a 5% increase in expenses, or a 2% increase in interest rates for each strategy alternative. You will need to use software or another sheet of paper to calculate the effect of these very real market uncertainties. How do these market and finance-related shocks affect your present business and its future under the strategy alternatives that you are considering?

	Base Plan	Strategy #1	Strategy #2
Effect of a 5% decrease in prices			
Net income	_____	_____	_____
Net cash flow	_____	_____	_____
Effect of a 5% increase in expenses			
Net income	_____	_____	_____
Net cash flow	_____	_____	_____
Effect of a 3% increase in interest rates			
Net income	_____	_____	_____
Net cash flow	_____	_____	_____

Worksheet 5.9: Financing

Use the space below to begin developing your financing strategy for any start-up, annual operating, and longer-term capital and real estate needs associated with each major business strategy alternative. Begin by having each member of your planning team (if appropriate) evaluate the importance of the financing criteria described (control, cost, risk, liquidity). Next list money that will be needed to finance start-up, operating, and long-term needs as well as one or more financing strategy for each. If any of your strategies include the use of external financing, be sure to research and record interest rates and financing conditions in the space provided. Be sure to talk with your local lender, accountant or Extension educator; they can help you locate and evaluate which finance strategy best fits your personal criteria and business needs.

Strategy Criteria

Rank the importance of each of the following finance strategy criteria:

Control	_____Low	_____Medium	_____High
Cost	_____Low	_____Medium	_____High
Risk	_____Low	_____Medium	_____High
Liquidity	_____Low	_____Medium	_____High

Financing Needs

List money needed for each expense category. Then, briefly describe one or more financing strategies for each.

	Value	Strategy One	Strategy Two
One-time start-up needs	\$ _____	_____	_____
Annual operating needs	\$ _____	_____	_____
Intermediate needs (5-7 yrs)	\$ _____	_____	_____
Long-term needs (7-10 yrs)	\$ _____	_____	_____
Real estate needs	\$ _____	_____	_____

Finance Options

If you plan to seek outside financing (including government cost-share payments), research interest rates and other financing conditions (such as easement terms) from up to three sources for each financial need.

Need	Source/Institution	Interest Rate	Conditions
Start-Up	_____	_____	_____
Operating	_____	_____	_____

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