

WELCOME TO EVALUATING PROFITABLE AGRICULTURAL ENTERPRISES

A PROFESSIONAL DEVELOPMENT WEBINAR SERIES



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WEBINAR SCHEDULE

Date	Session Title
Wednesday December 1	Introduction to Economic Feasibility Assessment
Wednesday December 15	Market Feasibility Assessment
Wednesday January 12	Financial Feasibility Assessment – Budget and Profit Basics
Wednesday January 26	Financial Feasibility Assessment – Budgets
Wednesday February 9	Financial Feasibility Assessment – Financial Analysis
Wednesday February 23	Enterprise Financing: Federal Grant and Loan Programs
Wednesday March 30	Enterprise Assessment Example – Drought Management
Wednesday April 13	Conducting Client Needs Assessments
Wednesday April 27	Evaluating Extension Programming
Wednesday May 11	Participant Project Presentations

We may add a webinar if topic requested. If you have questions or comments, please email kynda.curtis@usu.edu.



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WEBINAR II: MARKET FEASIBILITY ASSESSMENT

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TODAY

- Basics of marketing
- Defining target market(s)
- Consumer market data collection
- Estimating market size
- Pricing and pricing strategies
- Resources
- Guest speaker

- Thanks to WSARE for funding this webinar series - Western Sustainable Agriculture Research and Education



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BASIC MARKETING QUESTIONS

- What am I selling?
- Who might want/need it?
- Where will I sell it?
- How do I let people know I have it?
- Can I sell them my product and make money?

4 P's Marketing

- Product
- Price
- Place
- Promotion



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WHAT AM I SELLING?

- Physical products attributes
- Lifestyle
- Heritage
- Special – eco friendly, local,.....
- Convenience – time, location, etc.
- Other?



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MARKET ASSESSMENT PROCESS

- Define target market(s) for the product or service
 - Consumers who have a need for the product or service and are willing to pay a profitable price for it
- Market assessment steps
 - Estimate market size
 - Available customer base and purchase amounts
 - Estimate a feasible range of prices
 - Must cover production costs
 - Assess consumer sensitivity to pricing



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DEFINE YOUR TARGET MARKET

- Detailed picture of your target market(s) allows you to:
 - Implement effective and targeted promotion
 - Cater to most valuable customers
 - Design new products which serve customer needs
 - Select appropriate sales outlets for your products(s)
 - Provide services and support your market needs/demands



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HOW IS A TARGET MARKET DEFINED?

- Demographics
 - Age, location (state, county, etc.), gender, education level, income, children, marital status, etc.
- Psychographics
 - Interests, hobbies, or concerns regarding health, food safety, environmental, etc.
- Product/Service needs or preferences
 - Product or product characteristics (options, variety, location, package size, etc.) they require



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EXAMPLE TARGET MARKET

- ***Climbers*** is a hiking supply shop in a city known for its active population. Their target market includes men and women ages 18–30 who enjoy being in nature and take pride in their outdoor gear.
 - Active outdoors
 - Middle to high income
 - Higher level of education



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CONSUMER DATA COLLECTION METHODS

- Survey existing or potential customers
- General market assessment surveys
- Conduct product/pricing trials
- Ask fellow providers (competitors)
- Use secondary data resources
 - USDA, marketing firms, Extension, other online resources



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EXISTING CUSTOMERS

- Past transactions, orders, and communications
- Online orders
 - Name and contact info is provided, spending habits, user preferences, etc.
- Surveys
 - At purchase, online, at events...
- Customer appreciation events, “disguised focus groups”
 - Conduct surveys, provide samples for feedback, make observations
- Competitions
 - “To win” must provide contact info and a few other details may be demographic or interests...



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WHAT CUSTOMER DATA TO COLLECT?

- Name and contact information
- Transaction history
- Record of communication and responses
- Demographic profile (age, gender, profession, etc.)
 - Birthdays and anniversaries
- Psychographic profile (hobbies, interests, etc.)
- Spending habits



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NAME & CONTACT INFORMATION

- Market directly to the customer
- Customize/personalize communications
- Communicate about upcoming sales, new products, new flavors/varieties, etc.
- Communicate about late or out of stock items



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TRANSACTION HISTORY

- Basic preferences, which products they purchase and when/how
 - What products are most important to them
 - Where do they shop or purchase the product
 - Amount of the product (size, frequency, etc.)
- Amount they spend with your company on an annual, monthly, weekly, basis
 - How valuable are they
 - What specials or customer appreciation items/events you should offer to them



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RECORD OF COMMUNICATION & RESPONSES

- Effectiveness of different types of communication
 - One method may encourage sales more than others
- Customer preferred communication style/type
 - Email, phone, etc.
- Track communications so that spaced appropriately
 - Not overwhelming, or too many



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DEMOGRAPHIC PROFILE

- Age, location (state, county, etc.), gender, education level, income, children, marital status, etc.
 - Birthdays and anniversaries
 - Email/send birthday/anniversary card with promotion (% discount, coupon, etc.)
 - Personal touch and customer feels valued, reminds them of your company/products
- Harder to obtain
- Provides an improved description of your target market
 - Type of customer you should cater to, expand market



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PSYCHOGRAPHIC PROFILE

- Interests, hobbies, etc.
- Concerns regarding health, food safety, environment, etc.
- Difficult to obtain
- Use to select effective promotional channels
 - Magazines or publications of interest, social media, etc.
- Use to inform special labeling, packaging, certification
 - Organic, recyclable, low whatever....
- Use to inform corporate responsibility initiatives
 - Concerns of interests of customers
 - Sustainability, fair trade, worker health, etc.



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DATA EXAMPLES - GOVERNMENT

- Demographics from the most recent U.S. Census can be searched online by state and by zip code: <https://data.census.gov/cedsci/>
 - Ages, household and family size, income, ethnicity, etc.
 - All of which can provide information as to the characteristics of potential customers in the surrounding area
- Average annual consumption levels for hundreds of foods in the US can be found on USDA's Economic Research Service (USDA-ERS) website: <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/food-availability-and-consumption/>
 - ERS data is for standard, conventional products only



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CUSTOMER OR MARKET ASSESSMENT SURVEYS

- Surveys are the most popular method for collecting data
- Variety of methods including
 - Telephone survey
 - Face-to-face (in-person) survey
 - Internet survey
 - Dot survey
 - Observation
 - Informal interview



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TELEPHONE SURVEYS

- Telephone surveys are conducted by calling individuals and having them answer questions over the phone
- Advantages of telephone surveys
 - Interviewer can encourage respondent to answer all the questions
 - Responses can be analyzed immediately
- Disadvantages of telephone surveys
 - Expensive to pay telephone interviewers
 - As with mail surveys, random sampling is best, but call list can be put together from phone book if necessary
 - Many residents now only have cell numbers, unlisted numbers



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IN-PERSON INTERVIEWS

- An in-person interview is a survey administered face-to-face
- Advantages of in-person interviews
 - Interviewer can encourage respondents to fully complete survey
 - Results can be analyzed immediately
 - Specific populations can be targeted
 - Farmers' markets, grocery stores, etc.
- Disadvantages of in-person interviews
 - Costly to pay interviewers
 - Some respondents may not be willing to reveal information about themselves to a stranger
 - Must have permission to conduct these interviews in a public place



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INTERNET SURVEY

- An web-based survey is conducted via software online
 - A letter, post card, or email is sent out inviting respondents to take the survey
- Advantages of internet surveys
 - May be completed faster than other survey types
 - May be less expensive to conduct than other survey types
 - Some software ensures that respondents have to answer all the questions
 - Results can be analyzed immediately
 - Some online survey providers can supply email listings of target audience



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INTERNET SURVEY, CONT.



- Disadvantages of Internet surveys
 - Population of interest must have Internet access
 - Contacting the population of interest may be more difficult than with other methods
 - Some individuals may be uncomfortable providing sensitive information (such as household income) over the Internet



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DOT SURVEY

- Dot surveys or posters are used to focus on just a few important questions
- Technique involves usually no more than four questions displayed on an easel
- Response categories are listed as well
- Respondents place stickers or “dots” in the proper category to indicate their response



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DOT SURVEY, CONT.

- Advantages of dot surveys
 - Offer an alternative to written and oral surveys
 - Simple to complete-has been found to increase response rates over other survey types
- Disadvantages of dot surveys
 - Can only ask a few questions
 - Respondents can see responses from other respondents-may be swayed by what they see
 - Argument that this effect is similar to real-world activity, such as fad items and impulse buying

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INTERVIEWS & OBSERVATION

- Used to understand behavior, evaluate reactions
 - Focuses on image, product usage, and associations with name
- Maybe focus groups in which a group of target customers is asked a lengthy set of questions
- Informal interviews consist of asking the same simple, but specific questions of many people
- Observation consists of observing consumers and taking note of their behavior, perhaps reaction to trying a new product or flavor
- Providing samples, comment cards, recording impressions/behaviors at sales venues, customer appreciation events, etc.



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ESTIMATING MARKET SIZE



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ESTIMATING MARKET SIZE – FARM TOURISM EXAMPLES

- Local Tourists
 - Local customers traveling for a day or weekend outing, such as in-state or less than 100 miles away
 - U-pick strawberry operation example
- Destination Tourists
 - Visitors on a long vacation to specific destinations
 - National and state parks, heritage sites, etc.
 - Farm tourism venture example



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LOCAL TOURISTS

- If selling items directly from farm/ranch
 - Consider how far you can expect customers to travel
- The USDA Forest Service's National Survey on Recreation found the average distance traveled to visit a farm was 80 miles
- Western operators find their consumers travel over 75 miles to participate in U-picks, farm festivals, and related farm activities
 - No alternatives exist in their metro area



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LOCAL TOURISTS

- Potential number of customers
 - Demographics and population size in the area are important for estimating demand
 - Demographics from the most recent U.S. Census can be searched online by state and ZIP code
 - Ages, household and family size, income, ethnicity, etc.
 - All of which can provide information as to the characteristics of potential customers in the surrounding area
- Potential purchase size
 - Examining current and historical consumption patterns can be helpful
 - Average annual consumption levels for hundreds of foods can be found on the USDA's Economic Research Service (USDA-ERS) website
 - ERS data is for standard, conventional products only



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U-PICK EXAMPLE

- A strawberry producer is considering turning one acre of the operation into a U-pick
- Estimates that each acre will yield 10,000 pounds
- The average annual consumption of strawberries per person is 8 pounds (ERS, 2014)
- Use the following equation to determine the appropriate market size when selling one week's consumption of strawberries

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

$$= \frac{10,000}{8 / 52} = \frac{10,000}{.154} = 64,935$$

- The producer will need a market size of 64,935 consumers/visits annually to sell all output



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U-PICK EXAMPLE

- For the U-pick strawberry operation, the producer may be interested in targeting families.
 - Helpful to know if nearby communities have enough families to make up a portion of the 65,000 consumers needed to make the U-pick operation feasible.
- Bend/Redmond, OR
 - 26,073 families, average of 3.5 persons (2010 Census)
 - 91,255 potential customers



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U-PICK EXAMPLE

- What percentage might visit the u-pick?
 - If 40%, then 36,502 customers
 - Almost 30% of the U.S. population visited farms one or more times (2000)
 - But, agritourism has been growing at a rate of 6% annually
- If customers purchase 16 pounds annually for freezing/canning
 - Only need 32,467 customers/visits annually



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DESTINATION TOURISTS

- Many rural areas in the West are located between a major urban center and national/state parks, ski resorts, etc.
 - Vacation destinations for many foreign and out-of-state visitors
- Estimating the potential size of these markets requires information on
 - Where visitors are coming from
 - Where visitors are returning to



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GRAND CANYON NATIONAL PARK EXAMPLE

- Consider Grand Canyon National Park (GCNP)
 - Attracts around 4.4 million visitors annually
 - GCNP Statistics at <http://www.nps.gov/grca/learn/management/statistics.htm>
- Seasonal visitation is another important item to consider
 - Annual visits to the GCNP by season
 - Winter: 11% of total visits
 - Spring: 27% of total visits
 - Summer: 39% of total visits
 - Fall: 23% of total visits
 - Visitation by month at <https://irma.nps.gov/Stats/Reports/Park/GRCA>



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GRAND CANYON NATIONAL PARK EXAMPLE

- Where visitors to Grand Canyon National Park stayed before and after visiting the park

Destination	Before	After	Destination	Before	After
Flagstaff, AZ	17.5%	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%



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GRAND CANYON NATIONAL PARK EXAMPLE

- Consider a business located between Page, AZ, and GCNP
 - 3.4% of visitors stayed in Page prior to visiting GCNP
 - 4.0% of visitors stayed in Page after visiting GCNP
- The average number of visitors who would pass by this business location can be found with the following equation:

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

$$\frac{(4.4 \text{ million visitors}) * ((.034 + .040) / 2)}{12} = 13,567 \text{ visitors}$$

- The number of GCNP visitors that would pass by the business location each month averages 13,567
 - With a low of around 5,970 visitors during the winter months (11% of total)
 - And a high of 21,164 visitors during the summer months (39% of total)



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GRAND CANYON NATIONAL PARK EXAMPLE

- The Page, AZ, business is a farm tourism venture (hay rides, farm stays, etc.)
 - Assume venture needs to earn an average of \$10,000 in sales monthly to be viable
 - Expects average purchase of \$25/person
- Calculate the percentage of total visitors to GCNP the venture needs to attract

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

$$\frac{\$10,000/\$25}{13,567} = 2.9\%$$



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GRAND CANYON NATIONAL PARK EXAMPLE

- The venture would need to attract 2.9%, on average, of the monthly GCNP visitors
 - 6.7% of winter visits
 - 1.9% of summer visits
- This is a high percentage of total visitors
- For the business plan to work, the venture may try
 - Starting the venture on a smaller scale
 - Attracting more of the heavy summer traffic



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PRODUCT PRICING



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ESTIMATING PRODUCT PRICE

- Major pricing approaches
 - Cost-based
 - Demand-oriented
 - Competition-oriented
 - Not normally used independently



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COST-BASED PRICING

- Cost-plus pricing
 - Price equals total costs divided by number of units
 - Shortcomings
 - Not tied to consumer demand
 - No incentive to reduce costs
 - Adjustments for rising costs poor
- Mark-up pricing
 - Add a percentage to the cost of product (mark-up)
 - Very popular for retailers and wholesales
 - Easy, too many products to estimate demand
 - Shortcomings
 - Not tied to demand
 - Profit biased by pricing



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RETAIL DISTRIBUTION EXAMPLE

- Plan to sell product retail
- Set pricing at retail level and then evaluate demand
 - Ask wholesales and retailers what margin they require
- Example
 - \$5.00 cost of production
 - Multiply by 1.25 for wholesale price (Average 20-30%)
 - \$6.25 wholesale
 - Multiply by 1.40 for retail price (Average 30-50%)
 - \$8.75 retail
- Will consumers pay \$8.75?
- Need to use this price at all outlets



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DEMAND-ORIENTED PRICING

- Price at customer value (willingness to pay)
- Price skimming
 - Charge high price at first to pick up consumers willing to pay more
 - Gradually reduce price to pick up consumers who are more price sensitive
- Penetration pricing
 - Initial low price to capture market share
 - Discourages competition
 - Price is increased later when consumers are hooked
 - Common in new food products



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COMPETITION-ORIENTED PRICING

- Simple form of pricing
- Ideal when similar products exist
- Penetration pricing
 - Lower than competition price
 - Creates demand
- Parity pricing
 - Equal to competition price
- Premium pricing
 - Higher than competition price
 - Signals higher quality



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COMPETITIVE ANALYSIS

- 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?



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CONSIDER EXTERNAL FACTORS IN PRICING

- Distribution
 - Wholesale and retail margins
 - Transportation and packaging costs
- Environmental factors
 - Taxes, weather events, fad diets, energy policy
- Legal/regulatory factors
 - Labeling, certification, permits, safety



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POMEGRANATE JUICE PRICING EXAMPLE

- Produce and sell juice at specialty/health stores
- Cost of production is \$0.80 per 8 oz. juice
 - \$0.80 cost of production (multiply by 1.20)
 - \$0.96 cost with profit (multiply by 1.25)
 - \$1.20 wholesale price (multiply by 1.40)
 - \$1.68 minimum retail price required
- \$1.47 per 8 oz. retail price (ERS, 2013)
 - Pricing data is U.S. average, specialty retail price may be much higher
 - Target market may be willing to pay more (health benefits, families with children, seniors, etc.)
 - What packaging, labeling, etc. may differentiate the product?



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U-PICK PRICING EXAMPLE

- Strawberry U-pick operation
 - 10,000 pounds per acre
 - \$23,600 in revenue per acre
 - \$2.36 per pound retail price (ERS, U.S. average 2013)
 - \$18.88 in revenue per person
 - Average consumption is 8 pounds/year (ERS, 2014)
- Need to know the cost of production (including visitor services, permits, etc.)



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U-PICK PRICING EXAMPLE

- Considerations
- Visitors may purchase much more than 8 pounds annually (processing, events, etc.)
- Visitors may be willing to pay more or less than retail depending on...
 - Experience
 - Family outings, may pay much more per pound for the farm experience
 - Amount purchased
 - Bulk purchases for canning, freezing, etc., may pay less per pound
 - Specialty item
 - For organic, and other specialty labels or designations may pay more per pound
 - \$3.48 organic wholesale price per pound (ERS, San Fran 2013)



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ASSESSING CONSUMER SENSITIVITY TO PRICING

- Nine primary effects influence consumer price sensitivity
 - Perceived substitute effect
 - How many substitutes exist? If many, consumers will be more price sensitive
 - Unique value effect
 - Consumers less price sensitive if the product is "unique"
 - Increase market share through differentiation
 - Switching cost effect
 - Cost of changing from one product to another
 - People are reluctant to change and seek out new information
 - Consumers less price sensitive given large switching costs



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ASSESSING CONSUMER SENSITIVITY TO PRICING

- Difficult comparison effect
 - If products/services are hard to compare, consumers are less price sensitive
- Price-quality effect
 - Often associate a higher price with higher quality
- Expenditure effect
 - More sensitive to price changes on large, expensive items than small, inexpensive ones
 - Price changes on meat compared to salt



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ASSESSING CONSUMER SENSITIVITY TO PRICING

- Fairness effect
 - Impacted by what they consider fair (sense of value-added)
- Inventory effect
 - Seasonality affects price sensitivity
 - Higher demand for steak in summer due to outdoor grilling
- End-benefit effect
 - Some consumers willing to pay more for products that protect the environment, preserve open space, support family farms, etc.



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MARKET ASSESSMENT PROCESS

- Define target market(s) for the product or service
 - Consumers who have a need for the product or service and are willing to pay a profitable price for it
- Market assessment steps
 - Estimate market size
 - Available customer base and purchase amounts
 - Estimate a feasible range of prices
 - To cover production costs
 - Assess consumer sensitivity to pricing



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MARKET RESOURCES

- Target marketing tools and guides, Western Extension Marketing Committee - <http://valueaddedag.org/>
- USU Extension Business Management - <https://diverseag.org/business-management>
- USU Applied Econ Extension - <https://extension.usu.edu/apec/>
- Starting and Running Your Own Small Farm Business, Chapters 2, 7-9 – Book: <https://www.amazon.com/Starting-Running-Your-Small-Business-ebook/dp/B0081J0JO4>
- Cooperative Extension Service, available in each state – Utah State University (<https://extension.usu.edu/>), University of Nevada, Reno (<https://extension.unr.edu/default.aspx>) University of Arizona (<https://extension.arizona.edu/>), and Oregon State University (<http://extension.oregonstate.edu/>)
- National Sustainable Agriculture Assistance Program (ATTRA) - <https://attra.ncat.org/index.php>
- U.S. Census data: <https://data.census.gov/cedsci/>
- Average annual consumption levels at USDA's Economic Research Service (USDA-ERS): <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/food-availability-and-consumption/>



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MARKETING WORKSHEETS PROVIDED

- Target Consumer Description(s)
- Promotion Plan
- Sales Volume Projections
- Pricing Strategies

<https://extension.usu.edu/apec/extensionagentproject>



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QUESTIONS SO FAR?



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GUEST SPEAKER – STEVE ELA

- Steve Ela operates Ela Family Farms, a producer of tree fruits and fruit products on the western slope of Colorado. The operation is certified organic, GAPs certified and is Food Safety Modernization Act compliant since 2017. His orchards produce 55 varieties of peaches, apples, pears and other fruits sold across the area and are used in value added products such as dried fruits, butters, preserves and applesauce, and gift packs. Products are sold directly to the end consumer (through his website) and through farmers markets and in retail venues like Whole Foods. Ela Family Farms also offers on-farm experiences such as tours, dinner with a farmer and an adopt-a-tree program. Steve received a M.S. in Soil Science and a minor in Water Resources from the University of Minnesota.



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STEVE ELA – ELA FAMILY FARMS, HOTCHKISS, COLO.

- Producer of organic fresh fruit on the Western Slope (apples, peaches, pears, plums, tomatoes), and fruit products (jams, dried fruits, gift packs, applesauce)
- Products sold direct, through retailers and distributors, and farm stands
- Other products include 'Lunch with a Farmer' and 'Adopt a Tree'
- Established in 1907



<https://elafamilyfarms.com>



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NEXT WEBINAR: WEDNESDAY JANUARY 12

- Budget and profit basics – Dr. Ruby Ward
- Guest farmer speaker on budgeting basics



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THANK YOU!

QUESTIONS?



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