

Questionnaire for On-Farm Dairy Processing Visits

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The following questionnaire was developed to guide conversations and aid in the collection of input from dairy farmers regarding thoughts, plans and experiences with processing milk and the development of dairy products. The questionnaire will be used to conduct on-farm visits with dairy farmers as part of the University of Tennessee Extension Dairy Processing Innovation Initiative and the Small-scale Dairy Processing Equipment Study.



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You and Your Operation

1. What is your role in your operation?
 - Dairy farm owner/manager
 - Processing plant owner/manager
 - Both
 - Other (please describe) _____
2. What is your age? _____
3. How many years have you owned or managed your dairy farm? _____
4. How many years have you owned or managed your processing facility? _____
5. Please indicate you County, State. _____, _____
6. Please indicate your level of agreement with each of the following statements.

| Statement | Strongly disagree | Disagree | No opinion | Agree | Strongly agree |
|--|-------------------|----------|------------|-------|----------------|
| I am the kind of businessperson who is more willing to take financial risks than others | | | | | |
| I must be willing to take substantial financial risks to be successful in business | | | | | |
| I am reluctant about adopting new production or processing methods until I see them working for others | | | | | |
| I am more concerned about a large loss to my enterprise than about missing a substantial gain | | | | | |

7. What species do you milk or will you purchase milk from?
 - Cattle
 - Sheep
 - Goats
 - Other (please list) _____
8. Please indicate which of these best describes your enterprise
 - Value-added processing with own farm milk
 - Considering value-added processing with own farm milk
 - Value-added processing with purchased milk (skip dairy farm specific information)
 - Considering value-added processing with purchased milk (skip dairy farm specific information)
 - Other _____
9. Please describe any other value-added, direct marketing or agritourism activities you are currently involved in, if any.

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Dairy Farm Specific Information (skip if not involved in a dairy farm)

10. What is your current herd/flock size and the number of animals for the enterprise?

| | <u>Total herd</u> | <u>Value-added enterprise herd</u> |
|--|-------------------|--|
| Number of mature animals (dry and lactating) | _____ | _____ |
| Number of youngstock | _____ | _____ |
| Number of males | _____ | _____ |

11. What breed(s) do you milk?

12. What is the number of farm-specific workers, including yourself? Please record numbers for both types of workers even if zero (0). Record yourself as a family member.

_____ Number of family members
_____ Number of non-family employees

13. How do you market most of your milk?

- Milk cooperative
- Independent contract with a plant
- On-farm processing
- Other (please list) _____

14. What is your:

_____ Average production per animal (pounds per animal per day)?
_____ Yearly average bulk tank somatic cell count (SCC) in cells/mL?

15. Which situation best describes your farm:

- Freestall with traditional parlor
- Tiestall with traditional parlor
- Open barn with traditional parlor
- Pasture with traditional parlor
- Freestall with robotic milker
- Tiestall with robotic milker
- Open barn with robotic milker
- Pasture with robotic milker
- Other (please list) _____

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Processing Facility Specific Information

16. Please select and indicate the total annual volume produced in pounds for all value-added enterprises you are involved in.

| | Planned | Current | Annual Volume (lbs) |
|--|---------|---------|---------------------|
| <input type="checkbox"/> Soft cheese | _____ | _____ | _____ |
| <input type="checkbox"/> Aged cheese | _____ | _____ | _____ |
| <input type="checkbox"/> Homogenized milk | _____ | _____ | _____ |
| <input type="checkbox"/> Cream-top/line milk | _____ | _____ | _____ |
| <input type="checkbox"/> Ice cream or mix | _____ | _____ | _____ |
| <input type="checkbox"/> Butter | _____ | _____ | _____ |
| <input type="checkbox"/> Cream | _____ | _____ | _____ |
| <input type="checkbox"/> Drinkable yogurt | _____ | _____ | _____ |
| <input type="checkbox"/> Traditional or Greek yogurt | _____ | _____ | _____ |
| <input type="checkbox"/> Lotions, soaps, etc. | _____ | _____ | _____ |
| <input type="checkbox"/> Other (please list) _____ | | | |

17. How many gallons are used/you plan to use annually for your value-added enterprise?

18. What type of pasteurization do you use/plan to use?

- Low temperature (vat)
- High temperature short time (HTST)
- Ultra-high temperature (UHT)
- Other (please list) _____

19. What serving sizes are you planning on processing?

- Single serving (8 to 16 oz bottles; ½ pint ice cream, 8 oz blocks)
- Multi-serving (Quarts, ½ gallons; 16 oz blocks)
- Family size (1 or multi-gallons; ½ pound or more blocks)
- Other (please describe) _____

20. Was/will your processing facility built new or a retrofit of an existing facility? _____

21. What is/will be the number of processing-specific workers, including yourself? Please record numbers for both types of workers even if zero (0). Record yourself as a family member.

_____ Number of family members
 _____ Number of non-family employees
 _____ Unknown/yet to be determined

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Skip questions 22-27 if still in the planning stages.

22. What are the dimensions of your processing facility and the cost of the construction itself?

23. In what year was the processing facility built or retrofitted? _____

24. On average, how many hours do family members work in a week devoted to the value-added enterprise? _____

25. On average, how many hours do non-family members work in a week devoted to the value-added enterprise?

26. What was your estimated annual operating cost for the value-added enterprise in 2019?

27. Of your total operating cost, what percentage or actual value goes to the following:

| Amenities and Supplies | % of Annual Operating Cost | Actual Annual Value |
|---------------------------|----------------------------|---------------------|
| Electricity | | |
| Water | | |
| Sewage | | |
| Trash | | |
| Gas (propane or natural) | | |
| Packaging | | |
| Cleaning and Sanitation | | |
| Processing Supplies | | |
| Other (please list) _____ | | |
| Other (please list) _____ | | |

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28. From the below list, indicate the purchase price, whether it was new or used, and which value-added enterprise(s) it is used for. If you are in the planning stages, indicate "Need" in the purchased column.

| Item | Price | Purchased New or Used | Enterprise(s) |
|---------------------------------------|-------|--------------------------|---------------|
| Bulk tank | | | |
| Chiller | | | |
| COP tank | | | |
| In-line pasteurizer | | | |
| Homogenizer | | | |
| Separator | | | |
| Chart recorder | | | |
| Vat pasteurizer | | | |
| Butter churn | | | |
| Cheese drain table | | | |
| Cheese vat | | | |
| Cheese press | | | |
| Ice cream freezer | | | |
| Filler/capper/sealer | | | |
| Holding tanks | | | |
| Aging rooms | | | |
| Freezer storage – sqft ___ x ___ | | | |
| Refrigerated storage – sqft ___ x ___ | | | |
| Other (please describe) | | | |

29. Of the following, what all is included/planned in your packaging?

- | | | |
|----------------------------------|--|--|
| <input type="checkbox"/> Caps | <input type="checkbox"/> Containers | <input type="checkbox"/> Other (please list) _____ |
| <input type="checkbox"/> Bottles | <input type="checkbox"/> Sealing plastic | |
| <input type="checkbox"/> Labels | <input type="checkbox"/> Wax | |

30. Does/will your processing facility generate any waste dairy products (whey/skim, etc)?

- Yes
 No
 Other (please list) _____

31. If so, what do you do/plan to do with your waste dairy products?

32. If there is a cost associated with disposal, what is the approximate value of that cost? If you are unsure, indicate with "unknown."

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Value-Added Marketing

33. Before starting your enterprise, did you do any market research and if so, what kind?

34. Do/will you have any dedicated marketing personnel? If so, how many and how many hours a week do they spend on marketing?

35. Annually, how much do you/do you plan to spend on marketing? _____

36. Through what types of outlets do you sell/plan to sell your value-added products? (Please mark all that apply)?

- | | | |
|---|---|---|
| <input type="checkbox"/> Farmers market(s) | <input type="checkbox"/> Direct to restaurant | <input type="checkbox"/> Direct to grocery |
| <input type="checkbox"/> Wholesale distributor | <input type="checkbox"/> Off-site farm stand | <input type="checkbox"/> On-farm store |
| <input type="checkbox"/> Delivery to customers | <input type="checkbox"/> CSA/box program | <input type="checkbox"/> Mail delivery to customers |
| <input type="checkbox"/> Direct to other specialty retailer (including gift shops and wineries) | | |
| <input type="checkbox"/> Delivery to schools | | |
| <input type="checkbox"/> Other (please list) _____ | | |

37. How do you market/plan to market your value-added products (Please mark all that apply)?

- | | | |
|--|--|---|
| <input type="checkbox"/> Farm website | <input type="checkbox"/> Social media | <input type="checkbox"/> Billboards |
| <input type="checkbox"/> Directional road signs | <input type="checkbox"/> Brochures/rack cards | <input type="checkbox"/> Radio |
| <input type="checkbox"/> Product sampling | <input type="checkbox"/> Print (newspaper, etc.) ads | <input type="checkbox"/> Word of mouth |
| <input type="checkbox"/> Local food publications (Nourish Knoxville, etc.) | | <input type="checkbox"/> Press releases |
| <input type="checkbox"/> Other online listings (LocalHarvest, etc.) | | <input type="checkbox"/> Television ads |
| <input type="checkbox"/> Pick Tennessee/Kentucky Proud/Got to Be NC | | |
| <input type="checkbox"/> Other (please list) _____ | | |

38. What are the most common questions asked to you by your customers?

39. Do you currently/do you plan to communicate breed, animal raising methods, processing methods, etc. as part of your marketing?

40. Describe your target audience/ideal customer.

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Enterprise Economics

41. Aside from financial success, what are your personal definitions of success?

Skip questions 42-45 if still in the planning stages.

42. In 2019, which of the following options best describes your value-added enterprise, including the cost of your own and other family members labor?

- I'm making a comfortable profit
- I'm making a small profit
- I'm barely breaking even
- I'm not breaking even
- Other (please describe) _____

43. Over the next 5 years, assuming current conditions persist, which of the following best describes your value-added enterprise?

- I plan to grow my sales revenue by _____ percent and this increase will come from (check all that apply)
 - Moving more existing products
 - Increasing product pricing
 - Creating new products
 - Expanding into new geographic markets
 - Expanding into new stores
- I plan to stay the same size in terms of sales revenue
- I plan to decrease my sales by _____ percent
 - Move less existing products
 - Decrease product pricing
 - Reducing geographic sales area
 - Reducing storefronts that sell my products
- I plan to cease operations
 - Close the business
 - Transfer the business to another family member
 - Sell the business to another owner
- Other, please describe _____

44. My 2019 sales from dairy products were:

- | | | |
|--|--|---|
| <input type="checkbox"/> \$0 (no sales) | <input type="checkbox"/> \$20,000 - \$29,999 | <input type="checkbox"/> \$75,000 - \$99,999 |
| <input type="checkbox"/> \$1 - \$9,999 | <input type="checkbox"/> \$30,000 - \$49,999 | <input type="checkbox"/> \$100,000 or greater |
| <input type="checkbox"/> \$10,000 - \$19,999 | <input type="checkbox"/> \$50,000 - \$74,999 | <input type="checkbox"/> I prefer not to disclose |

45. Which of the following best describes your overall value-added enterprises' net income in 2019 (before taxes)?

- | | | |
|--|--|---|
| <input type="checkbox"/> Less than \$0 | <input type="checkbox"/> \$15,000 - \$19,999 | <input type="checkbox"/> \$50,000 - \$74,999 |
| <input type="checkbox"/> \$0 - \$4,999 | <input type="checkbox"/> \$20,000 - \$24,999 | <input type="checkbox"/> \$75,000 or greater |
| <input type="checkbox"/> \$5,000 - \$9,999 | <input type="checkbox"/> \$25,000 - \$34,999 | <input type="checkbox"/> I prefer not to disclose |
| <input type="checkbox"/> \$10,000 - \$14,999 | <input type="checkbox"/> \$35,000 - \$49,999 | |

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46. What percentage of your 2019 household income comes from the following sources:

- Value-added enterprise (dairy only) _____
- Value-added enterprise (other) _____
- Farming activities _____
- Off-farm income _____

47. For every \$100 of enterprise assets you have in 2019, how many dollars are financed with debt? (Circle the answer)

- \$0 \$5 - \$9.99 \$20 - \$39.99 I prefer not to disclose
- \$1 - \$2.99 \$10 - \$14.99 \$40 - \$69.99
- \$3 - \$4.99 \$15 - \$19.99 greater than \$70

48. What impact does each of the following factors have on your personal consideration of a value-added enterprise?

| Factors | Impact Level | | | | |
|----------------------------|------------------------|----------------------|-----------|----------------------|------------------------|
| | Strong negative impact | Some negative impact | No impact | Some positive impact | Strong positive impact |
| State regulations | | | | | |
| Federal regulations | | | | | |
| Start-up costs | | | | | |
| Knowledge about processing | | | | | |
| Labor for processing | | | | | |
| Product marketing | | | | | |
| Liability risk | | | | | |

49. Has COVID-19 impacted your enterprise/plans for your enterprise? Please explain how.

50. What educational resources or information would be helpful to your business? (Select all that apply)

- Start-up costs
- Federal regulations
- Product marketing
- Farmers market regulations
- Food packaging
- New product development
- Business feasibility
- Managing milk quality on the farm
- Using social media as a marketing and sales tool
- Maintaining and assessing financial records on the processing operation
- Maintaining and assessing financial records on the dairy operation
- Other (please describe) _____
- State regulations
- Food safety
- Employee training on products and equipment
- Human resources and employee management
- Interstate shipping certification (NCIMS)
- Direct marketing products
- Developing a marketing plan
- Expanding into wholesale and retail markets