

# THE MORE FOR YOUR MILK CO-PACKING PROGRAM

FROM THE MASSACHUSETTS DEPARTMENT OF  
AGRICULTURAL RESOURCES



# Introduction



*Small-scale co-packing is a potential diversification opportunity that may be feasible for a dairy farm, but only after thorough business planning and careful consideration.*

*This learning session outlines **how** a dairy farm would consider co-packing with a processor, and outlines the associated steps.*

*Concludes with options for technical assistance and next steps.*

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# For General Information



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# Today's Agenda



**10:00 - 10:15 am**    **Research Overview and Interview Findings –**

*Rebecca Davidson, Principal Investigator, Dairy Processing Research*

**10:15 - 10:30 am**    **Co-Packing - Benefits, working with the FMMO, your Cooperative, finding a processor**

*Lynda Brushett, PHD, Emeritus, Cooperative Development Institute and Rebecca Davidson*

**10:30 - 10:50 am**    **Small-scale Transportation Options for Co-Packing**

*Jessica Edwards, Dairy Inspector, MDAR Division of Animal Health*

**10:50 - 11:10 am**    **Food Safety Overview for Dairy Processing**

*Professor Amanda Kinchla, Department of Food Science at the University of Massachusetts*

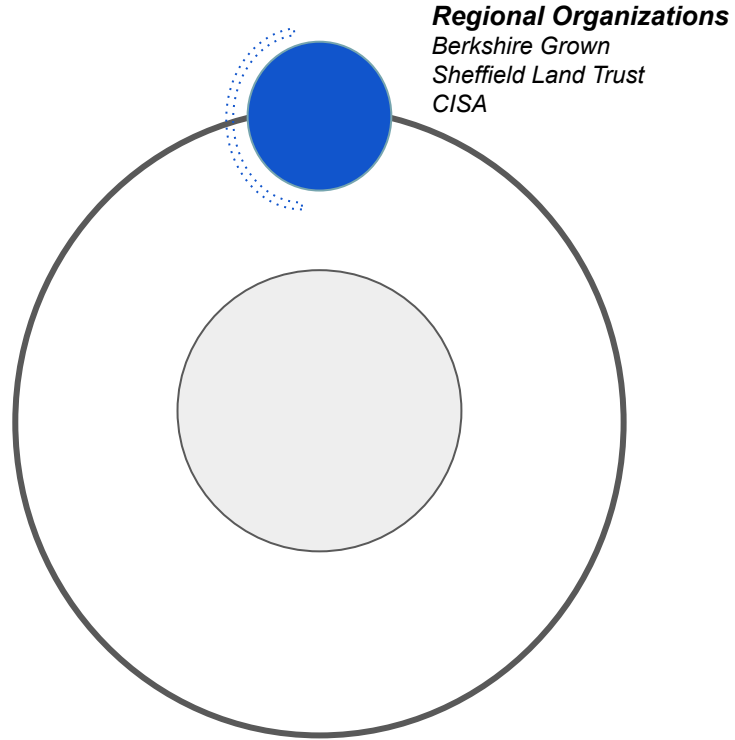
**11:15 - 11:50 am**    **Business Development Planning and Technical Assistance**

*Lynda Brushett and Bill Zweigbaum, Farm Credit East Business Consultant, Retired*

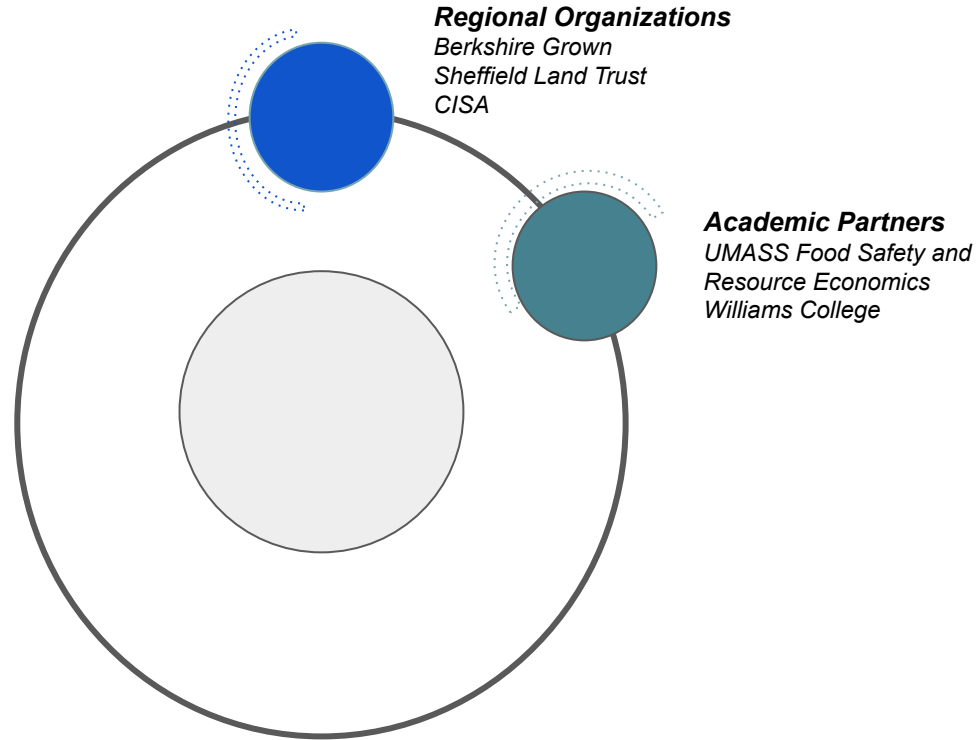
**11:50 - 12:00 pm**    **Technical Assistance Resources and Next Steps**

*Rebecca Davidson and Stevie Schafenacker, Technical Assistance Coordinator, CISA*

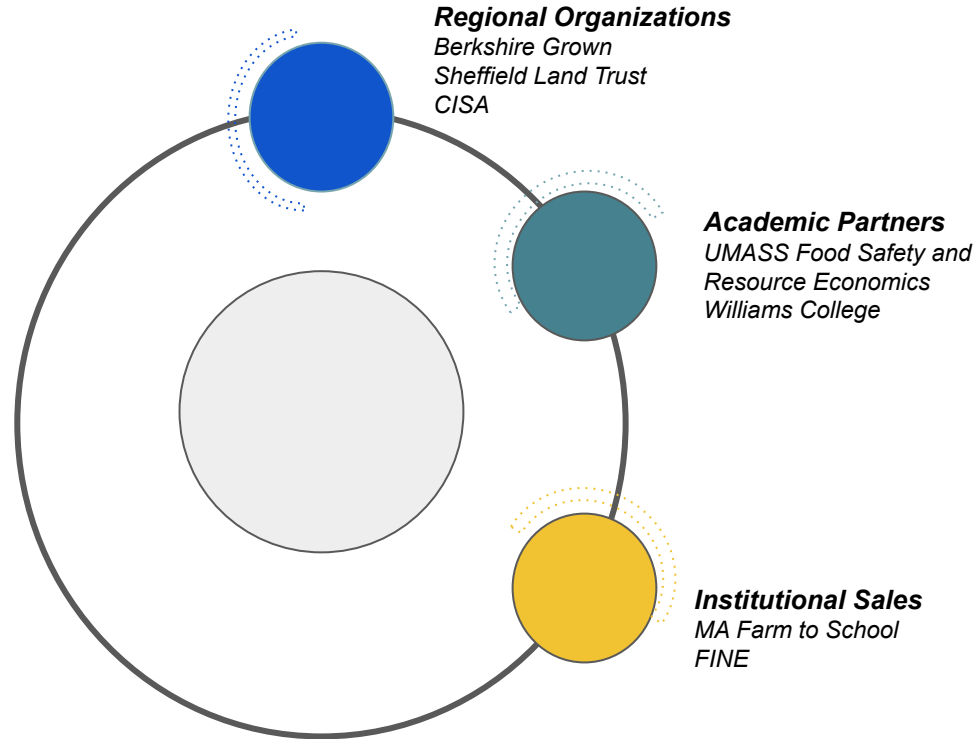
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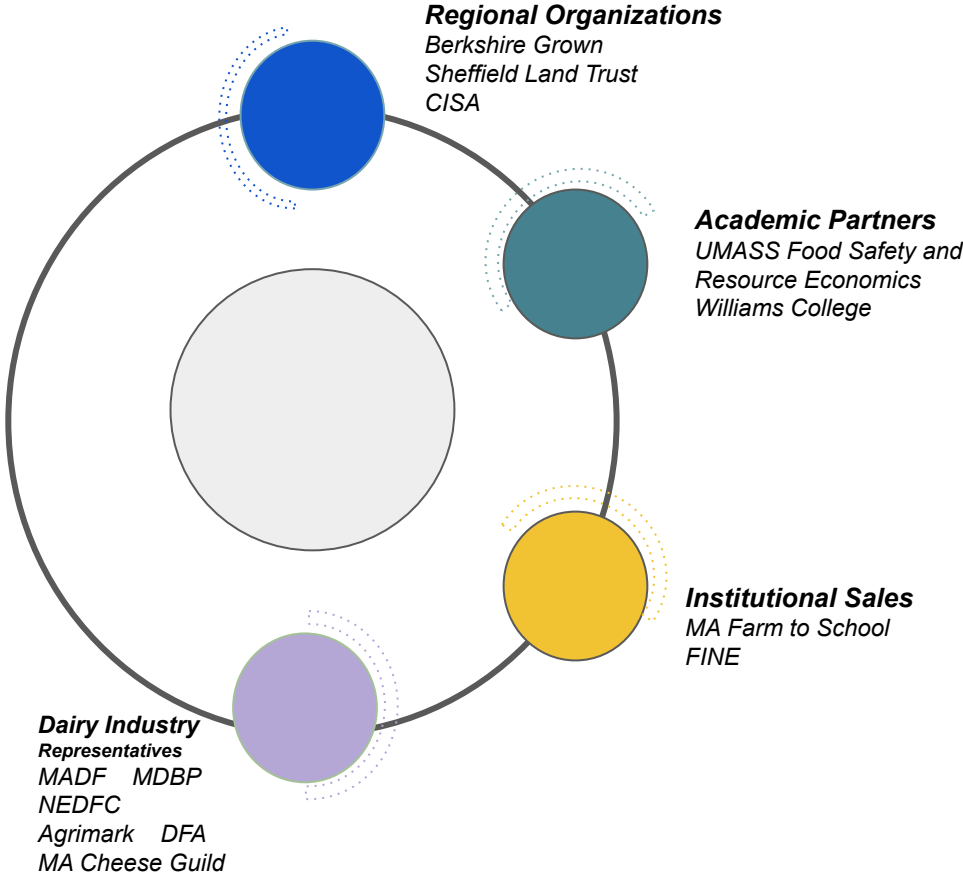
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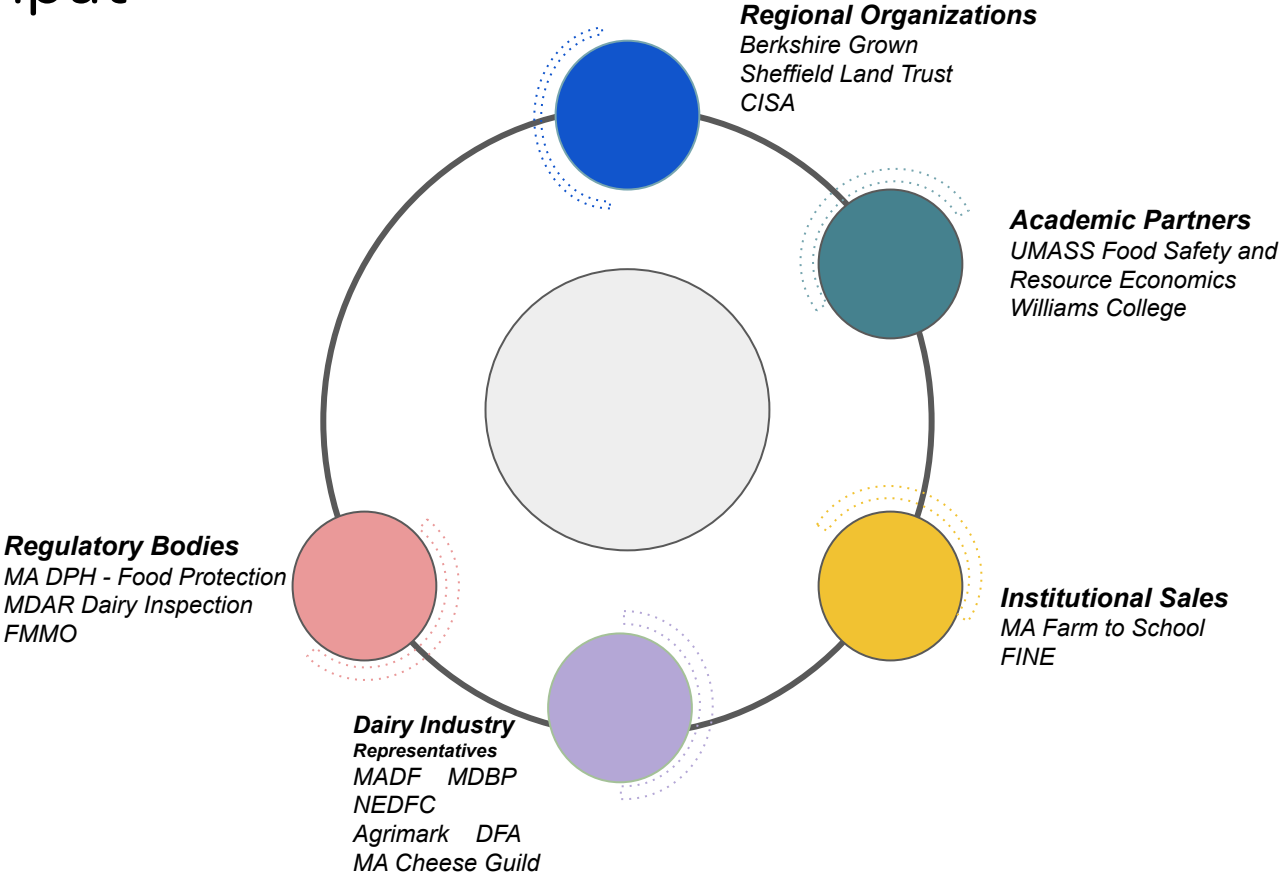


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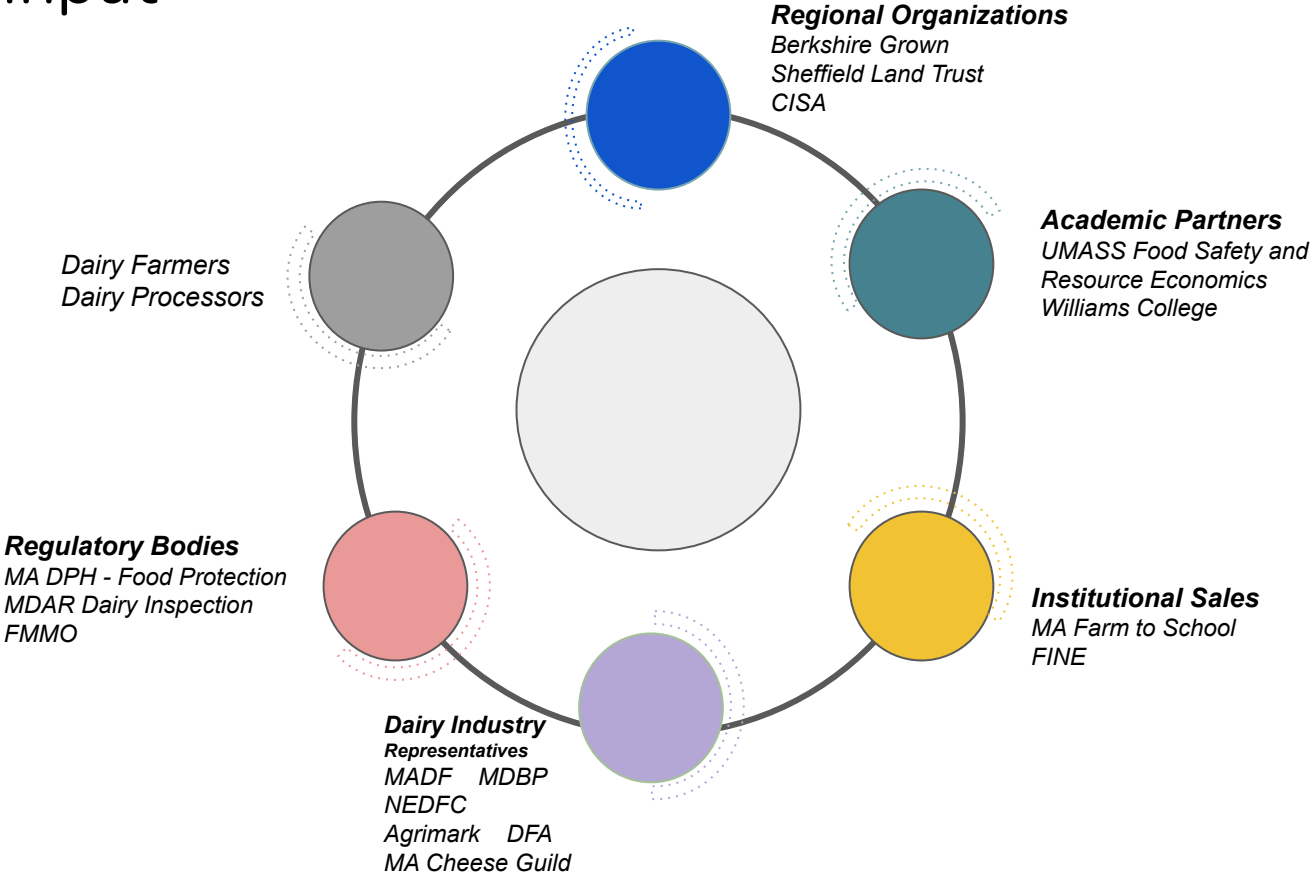




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# Project Input



# Farmer Experiences and Attitudes towards Value-Added Processing

## Summary Numbers

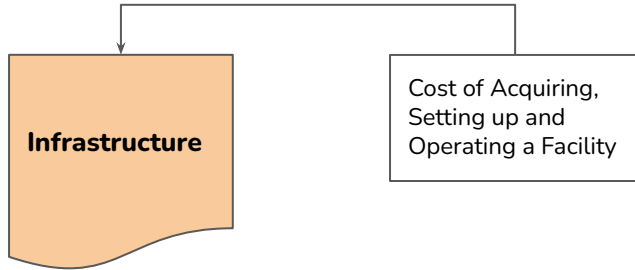
100+ Dairy Farmers Contacted

38 Survey Responses Received

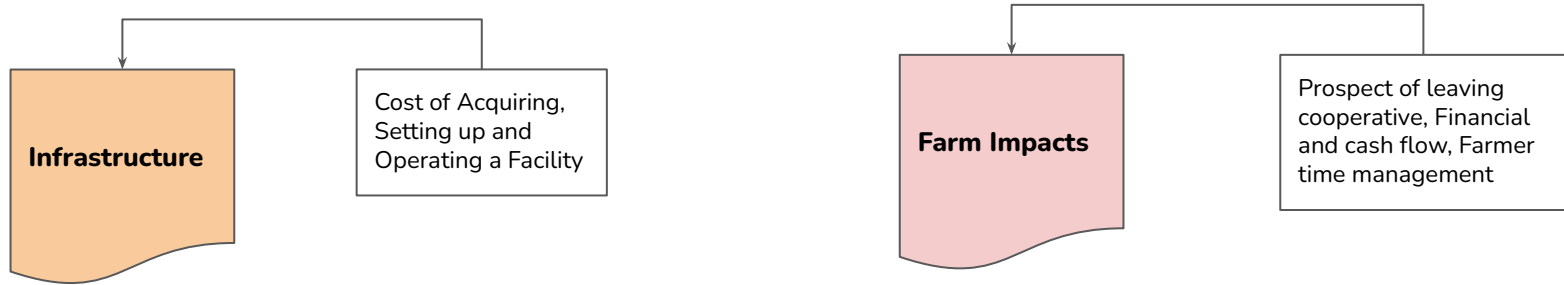
24 Interviews Conducted

8 Producer-Handlers and 16 Co-op  
Members

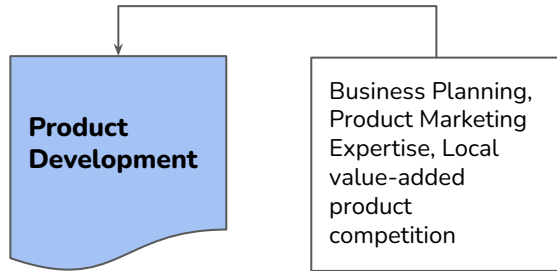
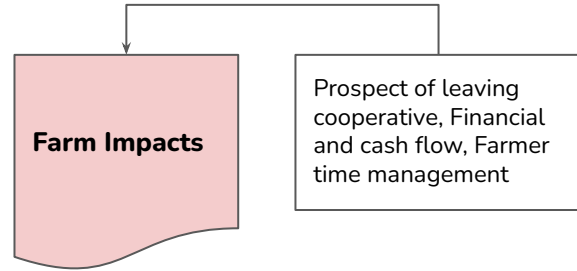
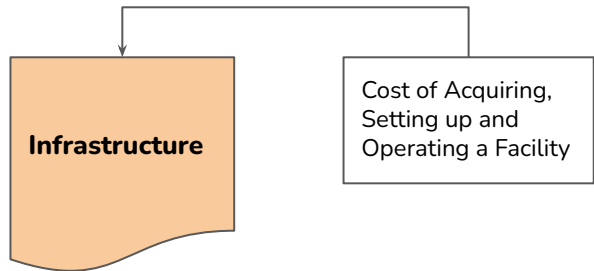
# What has held you back from processing your own product?



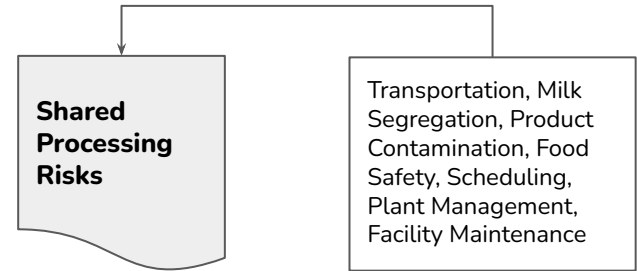
# What has held you back from processing your own product?



# What has held you back from processing your own product?



# What if there was a central facility you could access?

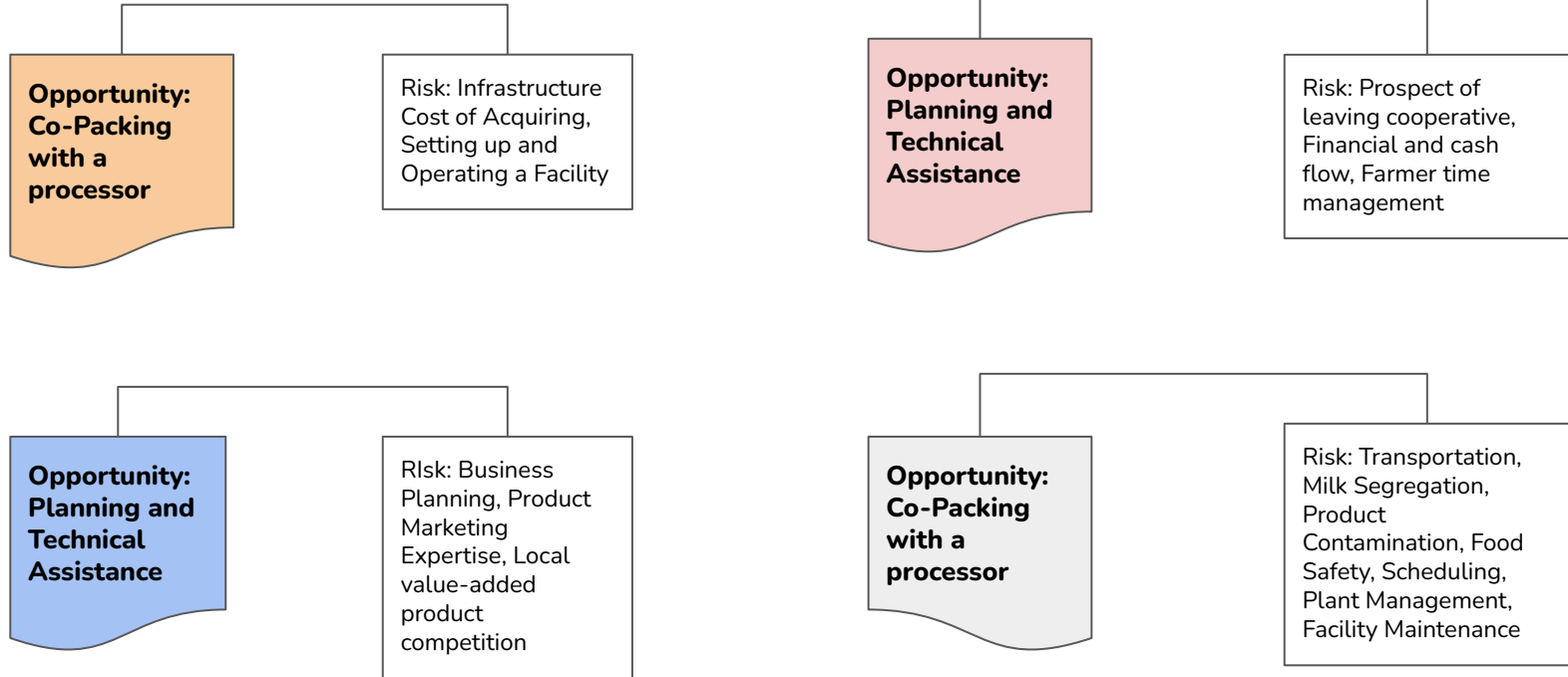


# Summary of Findings

- Strong interest in value-added processing despite risks.
- Stand-alone facility not feasible due to geographic constraints and concerns over ownership structure.
- Co-packing emerged as a model that several farmers already utilized - including regionally.
- Outstanding questions to answer - How can a dairy farmer work with a co-packer?
  - How can I work with my cooperative to divert my milk without negatively affecting my contract?
  - Does FMMO allow facilities to handle milk sourced from farmer?
  - Are there facilities that will co-pack for Massachusetts dairy farmers?
  - How would a farmer transport milk to the facility?
  - How to ensure food safety in shared-use setting?



# Balancing Risks and Opportunities



# Balancing Risk and Opportunity

## **Co-packing:**

**Processing facility manufactures your product for you to sell.**

*and*

## **Business Development Planning and Technical Assistance:**

**Planning for product and business success.**

# What did we learn: Opportunity is Local!

**Place.** Tell Your Story!

**Properties.** Benefits consumers want!  
Gratification, Taste, Convenience,  
Wellness, Quality, Staples, Packaging,  
Cow Care, Environment, Sustainability.

**Opportunities.** Make something ordinary  
extraordinary! Butter - flavored, plain,  
cultured, whipped; Yogurt, kefir and other  
cultured milks; Cheese, fresh and aged,  
flavored, curds and more.



# Why Co-Packing?



- \*Reduces investment
- \*Shorter learning curve
- \*Do not have to hire, train and manage processing staff
- \*No need to research, purchase, build, equip, set up and operate facilities
- \*Focuses your effort on milk quality and products
- \*Spends your time on market entry and retailing
- \*Determines if a good fit with your farm and a profitable bottom line.
- \*Adds valuable flexibility
- \*Willing MA co-packers

*How does a dairy farmer work with a co-packer to make a value-added product to market from the farm?*

# Co-Packing and the FMMO

- The FMMO is regulatory body that establishes the minimum price farmers receive for their milk.
- Operates under set of rules impacting how milk moves and is processed at different plants.
- MDAR and research team met with the FMMO to learn more about how dairy processing facilities can co-pack for dairy farmers.
- Three key takeaways in the FMMO regulations affect co-packing:
  1. Classification of the plant affects where the supplied milk is sourced from, and how much is sourced.
  2. Timing of diversion can affect a dairy farmer coming in and out of the pool.
  3. Producers are allowed to market their own milk within certain parameters.

# Co-packing: The Type of Processor Matters



Classification of handler	Definition	
<p>Producer Handlers (PH)</p>	<p>Farmers who process between 150,000 – 3 million lbs. of fluid milk per month</p>	<ul style="list-style-type: none"> <li>• Can source up to 150,000 lbs. of outside milk a month from a <b>pool source</b> (cooperative) for all products manufactured (Class I-IV)</li> <li>• Ability to co-pack for other farmers is <b>limited</b> by FMMO requirements for purchasing from a non-pool source (diverted or directly from farmer) and pool source (cooperative)</li> </ul>
<p>Pool Distributing Plants</p>	<p>Plants that receive pooled milk and process Class I and possibly Class II-IV products</p>	<ul style="list-style-type: none"> <li>• Pay into the pool</li> <li>• Can source milk directly from farmers under certain circumstances</li> </ul>
<p>Non-Pool Plants (NP)</p>	<p>Cheese or other dairy processing plants that process Class II-IV products and do not process Class I products</p>	<ul style="list-style-type: none"> <li>• No limits on the amount of Class II-IV products processed, packaged and sold at these facilities</li> <li>• No limits on the source of milk which can either be from a pool or non-pool source</li> </ul>
<p>Exempt Distributing Plants (ED)</p>	<p>Farmers or processing plants selling less than 150,000 lbs. of Class I fluid milk</p>	<ul style="list-style-type: none"> <li>• Can source outside milk directly from a pool or non-pool source.</li> <li>• Can process <b>unlimited volume of Class II-IV</b> products using own farm's milk or milk from another source</li> <li>• As long as stay under volume restriction for <b>sales</b> of fluid milk per month, EDs have ability to co-pack fluid milk for other farmers</li> </ul>

## Co-packing and your Cooperative

*What process would a dairy farmer go through to arrange a diversion of their milk to a co-packer?*

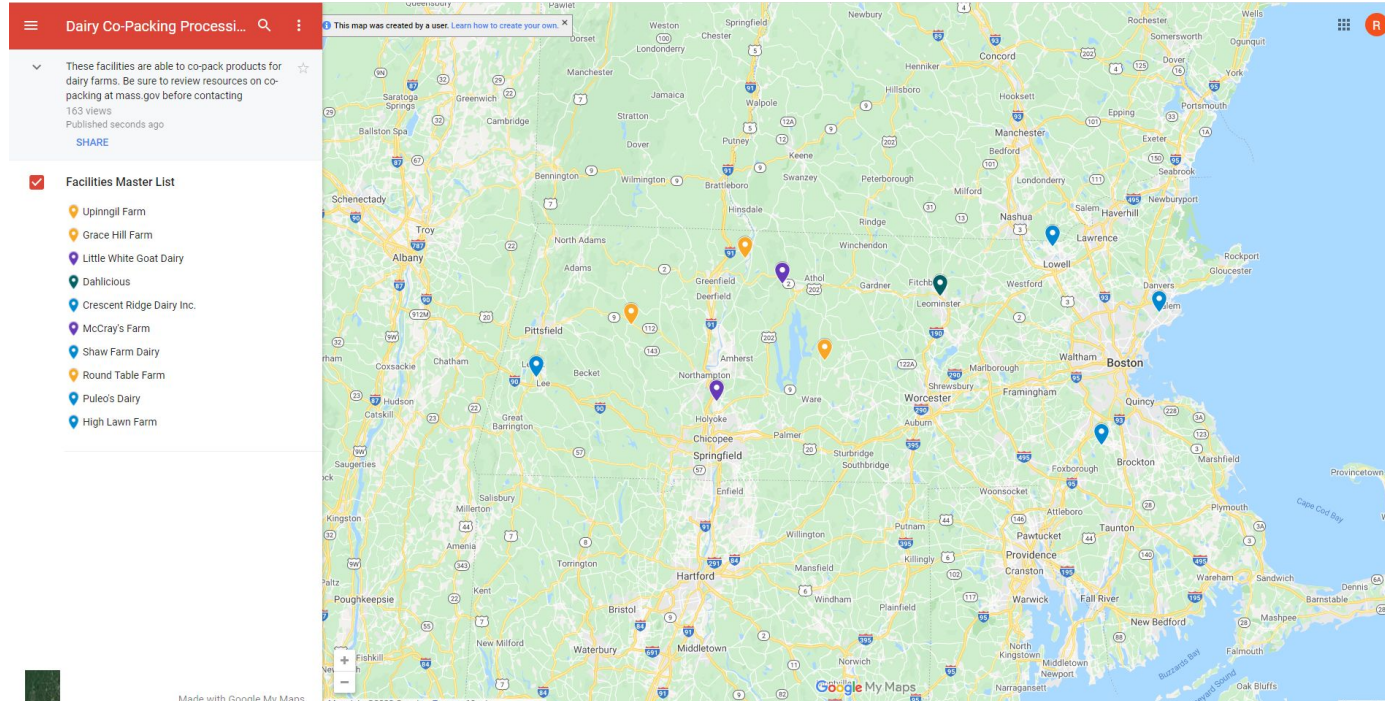
Contact your field representative when you know:

1. How much milk plan to divert, when and how often
2. Facility that will co-pack for you

Discuss how your contract will be affected, if at all.



# Co-packing: Interested Processors



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# Let's take a closer look at the facilities



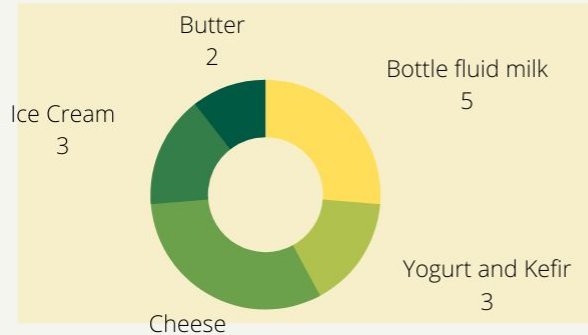
## Where are the facilities?

There are facilities in every region. Southeast (1), Central (2), Western (5), Northeast (2)

## How much of my milk can they process?

Depends on the facility. From 50 gallons to up to 1,000 gallons per production run.

## What can they make?



## What services can they provide?

Depends on the facility. Some may provide aging, cut and wrap, transportation, or marketing support.

# Co-packing: Small-scale Transportation

*Contact your Regional Inspector:*

Inspector	Region	Contact Information
<p><b>Jessica Edwards</b> <i>Dairy Inspector, Sampling Surveillance Officer</i></p>	<p><i>Worcester (eastern section), Middlesex, Essex, Norfolk, Plymouth, and Dukes.</i></p>	<p><a href="mailto:Jessica.Edwards@mass.gov">Jessica.Edwards@mass.gov</a></p>
<p><b>Sheila Phelon</b> <i>Dairy Inspector, Sampling Surveillance Officer</i></p>	<p><i>Central Worcester County to New York border, South of Mass Pike from Northbridge to the NY/CT border</i></p>	<p><a href="mailto:Sheila.Phelon@Mass.gov">Sheila.Phelon@Mass.gov</a></p>

# Co-packing: Small-Scale Transportation

## *Licensing and Regulations – Key Points*

- Farm must hold Certificate of Registration from MDAR before milk is hauled to a plant.
- Truck used to transport milk must hold Tank Permit provided after completion and approval of Milk Tank Truck Inspection Form.
- Each driver must be licensed Hauler/Sampler as certified by MDAR.
- Milk must be sampled and tested.

**NOTE:** A bulk milk hauler shall not collect milk from any dairy farm in the Commonwealth of Massachusetts for delivery to a milk plant, receiving station or transfer station unless such farm holds a valid Certification of Registration from the Commonwealth of Massachusetts as issued by the Department of Agricultural Resources.

# Co-packing: Small-Scale Transportation

## *Example of Transporting Milk to Off-site Processor – Cans or Totes*

- Food grade, impervious, seamless cans or totes.
- Sturdy containers with a tight-fitting lid used for storage or shipping of milk. The lids must be an umbrella style lids.
- Totes are also portable storage containers other than cans.



# Co-packing: Small-Scale Transportation

## *Example of Transporting Milk to Off-site Processor – Bulk Tank on Truck*

- Preferred option for raw fluid milk to be pasteurized into fluid milk products.
- Tank must be approved food grade stainless steel and insulated to maintain temperature.
- Manhole and valve need to be covered and protected. If not on tractor trailer type of truck, then inside of a cargo type trailer or box truck is the best protection. *Note: DPH regulates how the raw milk is received at the off-site facility.*





# Co-packing: Small-Scale Transportation

## *Example of Transporting Milk to Off-site Processor – Bulk Tank on Cargo Trailer*

- The trailer needs to have doors that seal tightly.
- The interior needs to be impervious floors, walls, ceilings for cleaning and sanitizing. FRP board can be used. It is an imperious material used in showers and bathrooms that can be found in the bath/shower area of Home Depot or Lowe's. The floor can be aluminum, epoxy or FRP.
- If the trailer is used to directly milk into, then the trailer also needs to be approved by Division of Animal Health Inspectors as part of the “milk room” and the doors need to be self closing.



# Co-packing: Small-Scale Transportation



- Completely enclosed cargo trailer approximately 18'
- The trailer walls and ceiling have been made impervious and lined with FRP panels (fiberglass reinforced panels)
- The floors have been made impervious and sealed with an epoxy sealant
- The transport bulk tank is equipped with a spray ball and can be easily washed with a portable washing pump
- The trailer has been equipped with an electric variable frequency drive to power the portable milk pump and portable washing pump
- Hooks have been installed inside to hang and store the milk hoses so they are off the floor and properly drain



# Co-packing: Small-Scale Transportation

Additional examples:

- **Private Hauler** – A few smaller plants in MA have their own bulk tank trucks.
- **Transport with Cooperative** – Some farmers arrange for transportation through their cooperative.

# Co-packing: Small-Scale Transportation



***Final Note:** With each option specified above, cleaning, protection and maintaining temperature are of utmost importance. Contact Division of Animal Health Inspectors before transporting milk to a facility for processing.*

# Dairy Co-Packing Program

- Co-packing and Business Development Webpage
  - Resources: Transportation, FMMO, Food Safety
  - Co-packer map
  - Business Planning Worksheets
  - Co-Packer Calculator
- Dairy Co-Packing TA Consultant - Funded by NE-DBIC

## Why Business Development Planning and Technical Assistance (Business P/TA)?

*While there is never a guarantee of success, business planning and technical assistance helps farmers move through the new venture development process from product to market to determine feasibility, make a go/no-go decision and plan implementation.*

# Business P/TA: Helps you Assess and Manage Risk



- Discover, avoid and deal with potential problems *before* they become costly mistakes
- Find product and marketing options with the *most* opportunity
- Clarify your ideas as you investigate *every aspect* of your value-added venture

## Business P/TA: Helps you Prepare for Success



- Evaluate whether/how a value-added business is a fit for your farm
- Test a recipe and its acceptance
- Acquire product management and marketing skills
- Determine regulatory requirements, such as food safety, labeling, permits and licenses
- Conduct product, marketing and competition research (what to sell, to whom, where and how, for how much)
- Develop a budget and secure financing for start-up and to sustain operations through profitability

# Business P/TA: Helps you Navigate the Unique Challenges of a Value-added Product Venture



- Making and marketing a perishable product
- Careful, monitored quality control from raw milk through finished product distribution
- Raw milk and finished product transportation and storage
- Balancing seasonal milk supply and fluctuating demand, especially if a single product
- Accounting for farm cash flow
- And if a cooperative member, entails thoughtful negotiation to assure the bulk of your farm's milk production has a secure market

# Planning Your Value-added Dairy Product Business



Business Planning Worksheets and the Co-packing Calculator provide a guide to deciding:

- How a value-added business could benefit me and my family's dairy farm?
- What resources do I, my farm and my family bring to the business?
- What value-added product (s) might I make?
- How could I market the product(s)?
- How to choose a co-packer and estimate costs?
- How do I work with my co-op or milk handler?
- What is my concept for a value-added business?



# Farm fit and family support



Parents, spouses, siblings.....YIKES!!!

*What questions or concerns will your family raise when you suggest that you want to use some of your farm's milk to make a value-added product?*

# Farm inventory



*What resources does my farm bring to a value-added business?*

What will you sell?



A *Product* with *Benefits!*

What product are you thinking of making?

Why will consumers want it?

Choose a Market



Who's going to want my product?

Where will they find it?

# Choosing a Co-packer: The Interview



- a) Does the co-packer make, or could they make the product I want to market?
- b) Is the co-packer a pool or non-pool plant? A PH? or an ED?
- c) Can the co-packer segregate my milk?
- d) What kind and size of raw milk storage is available?
- e) How much cwt. of milk is used per processing run?**
- f) How much milk will I need per year to make my products? Multiply e) by the number of runs you anticipate doing per year to obtain the annual anticipated cwt. of milk you will need per year for your business.**
- g) How many units of my product (quart or pound) can be made per processing run?**
- h) What is the Annual Anticipated Amount of product to be made? Multiply the number of units by the number of anticipated runs per year to obtain the Annual Anticipated Amount of product:**

# Cost of Co-Packing Calculator



# Co-packing and Business Planning = A concept for your new value-added business



1. My business will succeed because (describe the unique value your business brings to your farm, your customers and the marketplace).
2. My business will make (describe your product and the features and benefits it provides to your customers) for sale to (describe your customers) at (describe and list your market outlets).
3. I will make \_\_\_\_\_ units (pounds or quarts) of \_\_\_\_\_ (product) per year at \_\_\_\_\_ (Name of co-packer) at a cost of \$\_\_\_\_\_ per unit (pounds or quart).
4. I will sell my product at \$ \_\_\_\_ per unit (pounds or quarts).
5. I will market \_\_\_\_\_ units of my product per \_\_\_\_ (number of weeks) from\_\_\_\_(month) to \_\_\_\_ (month).
6. I will need \_\_\_\_\_ CWT of milk per year to launch my business and will work with my co-op or milk handler by (describe).
7. I will transport my milk to the co-packer by (describe).

# Next Steps



- Visit [www.Mass.gov/Dairy-Copacking-Program](http://www.Mass.gov/Dairy-Copacking-Program) to:
  - Explore resources, access Webinar recording
  - Complete worksheets and use Co-Packing Calculator
  - Find potential co-packers and their contact information
  - [Navigating Grant Opportunities for Dairy Farmers](#)
  - [Cost Savings and Energy Technologies for Dairy Farms](#)
- Sign up for Dairy Co-Packing Technical Assistance Program - Spring 2022
- Explore additional TA Opportunities:
  - [Northeast-Dairy Business Innovation Center](#)
  - Massachusetts Agricultural Innovation Center - Kate Minifie, Food Business Manager who can be reached at 413-548-6936 and at [katem@fccdc.org](mailto:katem@fccdc.org)
  - The Carrot Project - One-on-One Coaching and Business Consulting



# Buy Local Groups - Farm Assistance



- Funding and Direct Assistance with: Business and Financial Planning – Market Research and Planning – Marketing Materials and Branding – Recipe and Packaging Development – Legal or Regulatory Consulting – Labor Management support – Networking,
- For more information on [Buy Local Groups](#)
- To connect directly with CISA Assistance: <https://form.jotform.com/211174306015038> or call 413-665-7100 x24



# References and Appendices



Understanding the Federal Milk Marketing Order and Opportunities for Small-Scale Processing

An Overview of the Federal Milk Marketing Order Program, USDA Agricultural Marketing Service, October 2019

Northeast Marketing Order, Federal Order 1, Language Effective May 1, 2019

Dairy Farmer for Other Markets Matrix, Guide for Determining when a Depooled Producer can be Repooled