

## A Feasibility Study



# Affordable Micro-Creamery

May help manage on Farm Risks

01

Consumer interest. You can't create a product to sell if you don't have people interested in buying

02

Tour dairy processors in the surrounding areas. This is the best way to learn about creamery structure equipment needs.

03

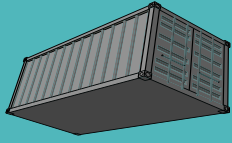
Connect with your regulatory agency. NY Ag and Markets must be involved in the design process.

04

Develop marketing strategy. Social media chatter will help get customers excited about your product

05

Equipment Decisions. What will you make, where will you sell, what regulations does your state have for dairy processing



## Pre-fab Creamery

- Size: you can only grow as large as the structure will allow. 2-100 gallon pasturizers is about max
- Building Site Needs: Water source, septic, electricity
- Cost: Base cost for shipping container structure (\$40,000-\$55,000) equipment (what is the product being made and size)

**Regulations can impact cost of project (especially in NYS)**

**Cost is also dependent on equipment/product being made**



## Build

- Size: Build to site. Easier to expand.
- Building Site Needs: structure built to state specs, water source, septic, electricity
- Cost: Variable. refurbishing an existing structure (garage/barn) may be more affordable

# MICRO-DAIRY COMPARISON SHEET

These comparisons are based on data from 2021. Price, regulations, building supplies may change.

## MICRO-DAIRY DESIGNS

- Equipment only. Must build structure to suit.
- All Equipment is ran off of electric power
- Knowledgable staff. Answer questions timely and willing to work with producer to troubleshoot
- Cooling requirements limited. Deep freeze chillers are used
- Affordable. Equipment size varies based on project.
- Great for a small scale 15-80 gallon pastruizer

## DON'S DAIRY SUPPLY

- Equipment comes with structure. Structure is built to producer recommendations
- Structure can be modified based on product being made
- Works with multiple compaines to piece together equipment needed for project. Some people use Micro-Dairy Designs equipumnt in a Don's Dairy Supply Shipping Container
- Knowledge Staff who work in multiple states and understand the regulations and know how to work within them
- Great for small scale to mid scale 15 gallon- 200 gallon pastruizer/s

# COST COMPARISON

These comparisons are based on data from 2021. Price, regulations, building supplies may change. This Project focus

## MICRO-DAIRY DESIGNS-VAT PASTRUIZER

MicroDairy Processing System basic pricing is as follows:

- 4 Gallon Table Top Pasteurizer (Includes Chart Recorder and Digital Indicating Thermometers) - \$4,900
- Table Top Add-On Kit (Adds 2 additional vats to the Table Top System for processing consecutive batches more quickly) - \$2,500
- 15 Gallon Vat (can be used as a legal pasteurizer, cheese vat, yogurt vat or "bulk" tank) (includes heater, airspace heater and agitator) - \$6000
- 30 Gallon Vat (can be used a legal pasteurizer, cheese vat, yogurt vat or "bulk" tank) (includes heater, airspace heater and agitator) - \$9000
- 45 Gallon Vat (can be used a legal pasteurizer, cheese vat, yogurt vat or "bulk" tank) (includes heater, airspace heater and agitator) - \$12,000
- 60 Gallon Vat (can be used a legal pasteurizer, cheese vat, yogurt vat or "bulk" tank) (includes heater, airspace heater and agitator) - \$14,000
- 99 Gallon Vat (can be used a legal pasteurizer, cheese vat, yogurt vat or "bulk" tank) (includes heater, airspace heater and agitator) - \$16,000
- Digital Indicating Thermometers with Chart Recorder for 15, 30 and 45 gallon vats - \$3000
- Digital Indicating Thermometers with Chart Recorder and Tilt Control for 99 Gallon Vat - \$3600
- Sanitary Tube Pump (used to pump product in/out of vat, circulate chilling fluid, fill cups or bottles) - \$2000
- Ecoflex Bottle and Cup Filler/Capper/Sealer - \$1500
- Deep Freeze Type Chiller - \$2000
- Medium Capacity Chiller (3/4 HP -160 Gallon Tank) - Space Saving Vertical configuration - \$5500
- Medium Capacity Chiller (3/4 HP -160 Gallon Tank) - Horizontal configuration - \$6500
- Large Capacity Chiller (3HP - 300 Gallon Tank) for many 99 Gallon Systems - \$8000

For example, a basic system including a 15 gallon legal pasteurizer, digital indicating thermometers, chart recorder and a sanitary tube pump costs \$11,000.  
A complete system including a 15 gallon legal pasteurizer, digital indicating thermometers, chart recorder, sanitary tube pump, chiller and bottle and cup Filler/capper/sealer costs \$14,500.

# Pricing does not include structure

# COST COMPARISON

These comparisons are based on data from 2021. Price, regulations, building supplies may change. This Project focus

## DON'S DAIRY SUPPLY-VAT PASTRUIZER

Qty.	Item Description	Price
<b>Container:</b>		
1	Container, Spray Foam Insulation, Truss Core for Walls & Ceiling Truss Core for Walls & Ceiling Sealed Concrete Floor w/ SS Curtain Drain	
Up to 3	3' x 3' Vinyl Windows, w/ Plastic Wood Trim, less w/ 20 ft	
1	36" Fiberglass entry door w/ Keyed Entry & Plastic wood trim	
1	200 Amp Electric Service Panel, wiring, pex tubing & fittings	
1	Stainless steel Triple Sink w/ Legs & faucet	
1	Stainless steel Hand Sink w/ faucet	
	Interior LED Vapor Tight lights & Exterior lights by doors	
	20 Ft Container	\$ 26,000.00
	40 Ft Container	\$ 44,500.00
	45 Ft Container	\$ 49,500.00

# COST COMPARISON

These comparisons are based on data from 2021. Price, regulations, building supplies may change. This Project focus

## DON'S DAIRY SUPPLY-VAT PASTRUIZER

<b>Popular Equipment Options:</b>			
	1	Exhaust fan	\$ 365.00
	1	Filtered Fresh air intake	\$ 500.00
	1	35 Ft Hot Water Hose w/ nozzle & hanger	\$ 145.00
	1	Mitsubishi Heat pump for AC & Heat	\$ 3,040.00
	1	60" Stainless Steel table	\$ 400.00
	1	Tube cooler with reducer package & stainless lines	\$ 4,000.00
	1	Stainless Steel Pump with Variable Speed Drive	\$ 2,684.00
Electric Heated		100 Gal Micro Dairy Vat, Chart Recorder & Peristaltic Pump	\$ 22,100.00
	1	On Demand Hot Water Heater for electric heated pasteurizers	\$ 1,989.00
Boiler Heated		100 Gal Anco Vat w/ PMO Pkg	\$ 24,950.00
	1	Combi Navien Boiler w/ Valve- For boiler heated pasteurizers	\$ 4,500.00
Carriage Machine Bottler		Single Valve Bottle Filler & Capper: Plastic Snap Cap- \$8,550 Plastic Screw Cap- \$13,375 Glass- \$11,750 Glass & Plastic- \$12,250 Semi-Automatic touch screen upgrade- \$4,000	

# COST COMPARISON

These comparisons are based on data from 2021. Price, regulations, building supplies may change. This Project focus

## DON'S DAIRY SUPPLY-VAT PASTRUIZER

### Cold Storage Options:

1	Condensing Unit for Cooler	\$	3,395.00
1	Cooler Door	\$	1,950.00
1	French Style Cooler Doors	\$	3,500.00
1	Double Construction for Cooler- depending on size (double insulation, raised & insulated floor, increased labor)	\$	5,000-10,000

\*Quote does not include Cold water source, Delivery & Installation\* Prices are estimated and subject to change.

# Total cost \$55,000-\$150,000

\*Cost Varies based on product being made, size of equipment, size of container



"This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under sub award number FNE21-971