



**ASSESSMENT OF DAIRY FARMS
INTERESTED IN SUPPLYING MILK
TO LOCAL & REGIONAL
SPECIALTY CHEESEMAKERS:
FINAL REPORT**

March 2022

*good
food
is
good
business*

PREPARED FOR
Northeast Dairy Business Innovation Center

BY
Karen Karp & Partners

P.O. Box 515
Southold, NY 11971

t. 212.260.1070
f. 917.591.5104

kkandp.com



TABLE OF CONTENTS

PROJECT BACKGROUND.....3

METHODOLOGY.....4

RESEARCH FINDINGS AND KEY THEMES.....6

RECOMMENDATIONS.....14

PROJECT BACKGROUND

The dairy industry and its associated services and activities are critical to the state of Vermont’s economy, landscape, and culture. Of dairy’s \$1.3 billion annual contribution to the state’s economy, cheese production ranks as the largest and most dynamic portion of overall activity, totaling \$650 million each year, followed by fluid milk production at \$400 million, the combination of which accounts for more than 80% of the dairy industry’s total economic activity statewide.¹ However, as the national fluid milk and commercial-scale cheese production industries become ever more consolidated, many of the more than 700 small-scale dairy farmers across Vermont are struggling to get by,² enduring unsustainably low milk prices, complex inter-state regulatory frameworks, labor challenges, inhospitably industrialized distribution and processing networks, and an ever more limited array of sales outlets within the commodity milk sector. In Massachusetts, dairy farmers are experiencing the same challenges, and the number of dairy farmers in the state continues to decline as more and more farmers become unable to sustain themselves within the sector.

At the same time, there is growing evidence that the local and regional specialty products sector—and specialty cheese production in particular—could present distinct and viable opportunities for small-scale milk producers to secure the agency, consistency of prices, and access to buyers, processors, and end-consumers needed for them to thrive.

In the fall of 2021, the Northeast Dairy Business Innovation Center (NE-DBIC) engaged Karen Karp & Partners (KK&P)—a food systems and economic development consultancy with deep experience working throughout the Northeast and in the dairy sector—to engage small-scale dairy farmers in southern Vermont and central-western Massachusetts who might be interested supplying raw milk directly to specialty cheesemakers in order to understand the specific conditions under which they would be able to engage in these types of localized and direct business relationships, and to diversify and strengthen their array of income streams outside of commodity milk markets in the process. NE-DBIC additionally tasked KK&P with interviewing cohorts of specialty cheesemakers and interested dairy farmers within the identified study region in order to set the stage for NE-DBIC to tangibly and expeditiously connect suitable and interested dairy producers directly to specific specialty cheesemakers.

Within the scope of work, KK&P was also asked to synthesize farmer and cheesemaker input and issue recommendations which could guide NE-DBIC in its efforts to provide the programmatic assistance and supports needed by all parties involved in order to increase their mutual preparedness and willingness to engage in these types of localized business relationships, and to additionally create a slate of tools—in the form of survey materials, mapping capacities, and match-making methodologies—which NE-DBIC could use to expand upon this pilot, and proliferate future iterations of farmer-cheesemaker connections.

¹ From “[Milk Matters: The Role of Dairy in Vermont](#),” by the Vermont Dairy Promotion Council

² From “[Milk Matters: The Role of Dairy in Vermont](#),” by the Vermont Dairy Promotion Council

This report contains detailed descriptions of the research methodologies used over the course of this project, findings uncovered during the surveying and interview processes, recommendations to support and facilitate secure business relationships between specialty cheesemakers and small-scale dairy farmers at the local scale, as well as an inventory of the tools used to complete the needed research.

METHODOLOGY

This study employed multiple research methods over the duration of the project, including background document review and landscape assessment interviews, convenience sampling, web-surveys, geographic information systems (GIS) analysis and mapping, and in-depth interviews conducted over the phone and via Zoom.

Each of these methods is discussed in more detail below:

- **Background document review and landscape assessment interviews:** In addition to drawing upon prior project work and experience within the dairy sector within the Northeast, the initial stages of project research included a high-level review of prior research on the state of the dairy sector in New England, including prior reports and materials created by NE-DBIC, the Vermont Agency of Agriculture, Food, and Markets (VAAFM), and the Massachusetts Department of Agricultural Resources (MDAR). This initial phase of research also included in-depth conversations with representatives from NE-DBIC, VAAFM, MDAR, as well as the Northeast Organic Farming Association of Vermont (NOFA-VT).
- **Cheesemaker selection:** Four specialty cheesemakers participated in this research, two each from Vermont and Massachusetts. They were selected for this project based on interest in building more localized milk supply chains (as expressed to their respective state agricultural agencies or guilds), as well as those agencies' assessment of their relative preparedness to begin purchasing milk from local producers over the short to medium term. While the selection process and criteria did not include designated size thresholds (e.g., volume of production) for cheesemaker participation, it was initially anticipated that participating cheesemakers would be already sourcing from at least a small number of farms in their region and/or beyond their own herds (if they were farm creameries), and that a cheesemaker's maximum size should contextually resist an industrial classification. However, as the selection process unfolded, it became clear that this specific typology of interested cheesemaker was not as common as anticipated across the study region. In the end, the largest of those cheesemakers selected expects to have a maximum annual milk intake not to exceed 10M lbs, all of which it plans to source regionally, while the smallest of the four participants expects to source fewer than 60K lbs annually and is currently sourcing exclusively from their own herd.
- **Cheesemaker engagement:** Upon selection, cheesemakers were asked to first complete a detailed online survey asking for information about their cheesemaking operation, current sourcing practices, logistics and distribution capacities, required/desired sourcing geographies, desired milk specifications and characteristics, preferred farm size and on-farm practices, contracting practices and premium structure, plans for scale, and additional considerations. Once the survey was completed, cheesemakers were asked to sit for a detailed interview— conducted over the phone or by Zoom— to assess their needs, concerns, and key considerations from material, logistical, and programmatic

support perspectives. The findings from this phase of project research were then used to develop the selection rationale, outreach methodology, and survey materials which guided farmer outreach efforts. Participating cheesemakers were paid a \$50 honorarium to compensate them for their time.

- **Farmer selection rationale and criteria:** Using the findings and selection rationale developed during the cheesemaker engagement phase of research, the KK&P team and NE-DBIC settled on using a convenience sample approach to farmer selection, which centered criteria derived from the cheesemaker engagement process which we hypothesized would be indicative of brokering potential farmer-cheesemaker matches. This selection process clustered around the following criteria:
 - 1) Identify and engage farmers named by and of interest to participating cheesemakers. By and large, these farmers were referred directly into the study by the cheesemakers themselves, and contacts were established directly;
 - 2) Identify the universe of potentially interested farmers and prioritize based first on geographic proximity to participating cheesemakers, then by existing/known farm practices and their alignment with stated cheesemaker requirements and preferences, and additionally by any expressed willingness to adapt on-farm practices to meet stated cheesemaker requirements and preferences; and
 - 3) As needed, use the criteria above to identify farmers whose interest in working with specialty cheesemakers was unknown, but whose geographic proximity, farm practices, and/or need for business development and innovation may allow a mutually beneficial relationship to be facilitated.

As an additional criteria for farmer selection beyond those above, NE-DBIC further specified a desired herd size of 200 head or fewer.

- **Farmer selection, assessment of interest and eligibility, and engagement:** Farmers were initially engaged via one of two methods: 1) Direct introduction to farmers of interest by participating cheesemakers; and 2) Engagement by NE-DBIC, VAAFM, and MDAR via broadly circulated online newsletters and print mailers— whose total reach included nearly all of the 700 farmers across Vermont and Massachusetts— and which directed farmers to an online preliminary intake form assessing their interest, location, and herd size.

This intake form was then used to prioritize farmer respondents in accordance with the selection rationale and criteria described above. The farmers who met the selection criteria were then invited to take a comprehensive farm practices survey which gathered information about their farm practices, milk specs and characteristics, production capacity, interest and concerns, contract requirements and preferences, and needs for support— a mirror to the information gathered from cheesemakers. Assessments of geographic proximity between farmers and cheesemakers were determined by

uploading location data gathered during the intake process into a customized map and layer hierarchy generated using Google Maps.

Lastly, a subset of those farmers who completed the farm practices survey were asked to sit for follow-up interviews, where their survey responses were clarified where needed, and their assessments of the risks involved in engaging in more localized businesses relationships, concerns, and technical support needs were examined in more detail. In both the mailers and the preliminary intake form, farmers were informed at the outset that they would be compensated for their time with a \$50 honorarium if selected to complete the comprehensive farm practices survey and/or sit for in interview.

- **Farmer sample selection detail:** Of the total 17 farmers total who responded, four farmers were identified and contacted directly by cheesemakers, while 13 were engaged through the newsletters and mailers sent out by NE-DBIC, MDAR, and VAAFM. Of those 17 farmers who completed the preliminary intake form, seven were located in Massachusetts and 10 in Vermont. A total of 16 were deemed to have sufficiently met the eligibility criteria for an invitation to complete the farm practices survey. Of the 16 farmers invited to complete the survey, 14 successfully did so before study completion, and nine sat for follow-up interviews.

RESEARCH FINDINGS AND KEY THEMES

In keeping with the project's phased outreach and data gathering methodology, the findings and key themes uncovered during that outreach are presented sequentially.

CHEESEMAKER OUTREACH FINDINGS AND THEMES

1. **Cheesemaker scales of operation and purchasing vary significantly, from state to state, across the study region.** Cheesemaker scales of operation appear to vary greatly across state lines, and those who were interested in participating in this project were of a significantly smaller scale in Massachusetts than participating cheesemakers in Vermont and smaller than the cheesemaker typology initially imagined for this study. Both participating Massachusetts based cheesemakers are farm-based operations who are looking for either their first or second external purchasing relationship, expect to source from a maximum of two to three additional farms with herds numbering in the range of 25 milking cows, and have a projected maximum cheese production at scale of less than 100K lbs annually. On the Vermont side, the participating cheesemakers are operationally and financially more established, with the smaller of the two expecting to be able to source from as many as four external farms with herds in the range of 25 milking animals each and a maximum anticipated production approaching 1M lbs annually. The larger of the Vermont-based cheesemakers estimated that at scale, they could source from as many as 20 farms with herds numbering 25 milking cows each and a maximum potential production in the range of 10M lbs annually.

2. **In general, all participating cheesemakers expressed strong preferences for sourcing from small farms that produce milk from pastured, grass-fed cows, and who have demonstrably high animal welfare standards.** While most cheesemakers didn't have specific herd size thresholds for their suppliers, when asked, all of them quoted preferred and/or anticipated herd sizes that were in the 25 milking animal range. Within this universe of preferences, the cheesemakers did not have unified expectations or rigidity of specifications with respect to cow breeds, provided the milk met the requirements imposed by the chemistry of the cheeses under production and other target quality thresholds. At the same time, cheesemakers did not list certifications such as Animal Welfare Approved or Certified Humane as essential to starting or maintaining a purchasing relationship, instead making clear that they felt that personal knowledge of farm practices aligned with those certifications— built through a combination of personal relationships and site visits, along with contractual provisions guaranteeing these practices would be maintained and/or strengthened—would in many cases be sufficient to begin and maintain a purchasing relationship.

“We prefer to work with small family farms”

With respect to farms being Certified Organic, just one of the participating cheesemakers said that they were considering offering an organic line of products (in which case they would by necessity require that their milk suppliers be certified as well), whereas the other three cheesemakers were ambivalent towards the certification itself even though they generally expressed favorable feelings towards the animal welfare and farm/environmental practices implied/required by it.

3. **Newer cheesemakers appear more flexible with respect to milk specifications and farm practices than more established players.** Cheesemaker time in operation appears inversely correlated with their stated flexibility in milk specifications and farm practices, with the newest cheesemakers expressing more flexibility around milk and farm practice requirements when compared with more established cheesemakers.

However, all four of the cheesemakers interviewed expressed that they could be flexible in their criteria for the right supplier relationship/opportunity.

“We're still so new! There's a lot we need to learn and ultimately we're looking for dairy farms in the next year that can learn with us and be flexible while we learn”

The main exceptions to this flexibility were: a) somatic cell count and bacterial levels, where each cheesemaker was firm in their requirements that farmers meet clearly defined food safety thresholds (including insistence on testing requirements and visitation permissions to verify these food safety thresholds), and b) clearly emphasized requirements and/or preferences for farmers to furnish milk produced with the exclusive use of unfermented feed. The two larger cheesemakers were firm on this requirement, while the two smaller operations expressed strong preferences for unfermented feed.

4. **Cheesemakers express broad willingness to purchase milk from farms while those farms are transitioning towards desired farm practices.** Moreover, all cheesemakers interviewed explicitly expressed willingness to purchase milk through a farm transition provided there is ample alignment and trust within the relationship and agreement towards desired practices, as well as contractually specified permissions for the cheesemaker to visit the farm to track progress.
5. **Stated milk prices per hundredweight in the specialty cheese sector are well above commodity milk prices.** Of the four cheesemakers interviewed, all expressed an expectation and willingness to purchase milk at significantly higher prices than supported by the commodity milk sector, with the lowest price offered coming in at \$25/cwt and the highest at as much as \$35/cwt. In each case, cheesemakers expressed a willingness and desire to adjust prices in accordance with milk quality, and with allowances for transportation logistics and responsibilities (i.e., who hauls the milk) impacting milk pricing.
6. **By and large, cheesemakers agreed that they could offer contracts annually, but were reluctant to commit to longer terms or guarantee purchase quantities.** In most cases, this came from a desire for flexibility that cheesemakers stressed they would need as they scaled up their operations, and/or a hesitancy to commit to long-term commitments with farmers with whom they had not yet developed trust. Additionally, cheesemakers sought to preserve their prerogative to opt out of renewing and/or terminate contracts with milk producers who they felt were underperforming, although they asserted that such moves would be measures of last resort.
7. **Cheesemakers expect that they will have to pick up milk from farmer suppliers, but not from too far away.** By and large, all cheesemakers engaged seemed to expect that in the absence of a co-op to haul milk, the responsibility would fall on them to facilitate transportation. With this said, cheesemakers' scale of operations appears to be positively correlated with their willingness/ability to travel to pick-up milk, i.e., the largest of the cheesemakers expressed a willingness to travel further to pick up milk than the smallest cheesemakers interviewed. Larger cheesemakers also discussed the potential to contract out for transportation with third party haulers, including the possibility of negotiating dedicated routes with the co-ops. For these reasons, the smaller of the cheesemakers interviewed were the most insistent on the importance of finding sourcing partners that are geographically close to them, often describing a maximum desired travel time of between 30 and 45 minutes away.

“Hauling milk is a whole separate business”

However, each cheesemaker spoke of unique transportation challenges and expressed flexibility with respect to how best to solve them, as well as desires for support around milk hauling logistics.

8. **Personal relationships, mission alignment, and trust will be essential to the viability of developing and maintaining new business relationships.** While all of the cheesemakers interviewed specified that they

would contractually require testing and visitation permissions, such provisions will not be a substitute for confidence in the farmer supplier and positive interpersonal dynamics.

“We require a relationship with our milk suppliers”

9. **Fundable infrastructure and technical support at the cheesemaker level could unlock significant production capacity in the specialty cheese sector across all studied scales of production.** Cheesemakers interviewed identified a wide variety of specific and identifiable equipment needs which they said would help them to greatly expand their production and alleviate bottlenecks, if funding assistance were available. Specific production and packaging equipment mentioned included pasteurizers to enable fresh cheese production, enlarged cheese vats to boost batch sizes, and cutting and wrapping equipment to prepare end-products for distribution and sale. One of the cheesemakers identified a need to renovate their existing facility in order to more easily facilitate sanitation protocols at scale.

“Being awarded a grant or two would be nice”

Across the board, all of the cheesemakers expressed a desire for assistance facilitating fluid milk transport and purchasing logistics. They embraced and/or expressed openness to a broad range of potential solutions, including pursuing grant funding to purchase and enhance their own hauling equipment capacities in the form of bulk tanks and vehicles, and they expressed broad curiosity about ways in which agricultural agencies and NE-DBIC could support the proliferation of independent and third-party hauling partners. Importantly, the majority of the cheesemakers interviewed were open to the idea of working with one of the co-ops to facilitate milk purchasing logistics, although they were all insistent that any such arrangement would have to come with guarantees that they could independently verify the origination and quality of their milk supply, and that that supply not be pulled from runs pooled with sources that lacked such verification.

From a technical assistance perspective, the cheesemakers described a wide variety of needs, including assistance with legal advice and contracting, as well as marketing support to help secure the attention and continued patronage of distributors and buyers, and sustainably grow their market share in order to plan for long-term production needs. Additionally, a couple of cheesemakers requested support around milk testing and regulatory compliance as they expand their sourcing to greater numbers of farms and across state lines.

FARMER OUTREACH FINDINGS AND THEMES

1. **The universe of farmers interested in supplying the specialty cheese sector spans a wide range of production scales and geographies.** At the smallest end of the spectrum, farmers with as few as five animals responded to our call for participation, and at the largest end sat operations with 300+ milking cows. Geographically, the farmers who expressed interest in supplying the specialty cheese sector

extended well beyond the initially conceived study region of southern Vermont and central Massachusetts, and instead ranged from far southeastern Massachusetts to the Northeast Kingdom in Vermont.

2. **Milk specifications generally met cheesemakers' criteria for purchase, while farm practices varied amongst respondents, typically in correlation with farm size.** While herd composition varied greatly across farmers, representing a wide diversity of breeds, in general, the milk specifications and characteristics described by farmers met the minimum criteria established by the cheesemakers.

From a farm practices perspective, the picture is more nuanced, with larger farms typically shying away from pasturing their animals or administering grass-fed diets, while smaller farmers were generally more likely to deploy the types of pasturing practices and grass-fed feeding regimens which cheesemakers listed as most desirable. **However, the overwhelming majority of farmers listed fermented feeds as the norm.** This was chiefly attributed to the local climate which makes it difficult to keep hay dry, lack of feed storage capacity or sufficient land to produce 12 months' worth of dry hay, and the potential added expense of purchasing in dry hay to cover deficits in on-farm hay production or storage capacity.

"We like the idea of Humane Certification, but know very little about what is involved. Once we are more informed, we would know if it's a good fit for us"

"We are open to gaining further certification in order to further open our milk market"

"Fairly sure that we qualify, but are not willing to give up treatment options for sick animals (very limited need)"

With respect to animal welfare practices and third-party certifications, just four of the 14 farmers who completed the survey were certified Animal Welfare Approved (AWA), and 3 Certified Organic. However, virtually all of the farmers interviewed attested to the well-being of their animals, with co-op members pointing to in-house review processes and minimum standards described as commensurate with third-party certifications such as AWA and Certified Humane (CH), and non-affiliated farmers offering detailed descriptions of their animal welfare practices. While on the whole, non-certified farmers expressed some openness to securing additional animal welfare certifications if it required minimal adaptation and a buyer was insistent, in general, farmers were hesitant to take on the added expenses of doing so, and would only consider such moves as part of the overall conversation around pricing, contracting terms, and demand stability. This relative indifference towards certifications as a form of requisite credentialing echoed the views of cheesemakers, who were themselves more focused on first-hand knowledge of best practices than on the officiation of those practices via third-party audit.

3. **A sufficiently high and stable price for milk, combined with consistency of demand, will be the chief drivers of farmers' decision-making.** In general, participating farmers stressed that the price offered for

milk would be their top consideration for participating in any business relationship with specialty cheesemakers, and while many were hesitant to offer firm price thresholds for engagement, those that did quoted prices ranging from \$20/cwt to \$35/cwt, with responses clustering around the \$25/cwt threshold. Additionally, farmers emphasized the importance of having stable demand for their milk, both in terms of purchase quantity and pick-up regularity, citing concerns both financial (the costs of dumping unwanted milk) and operational (cows produce milk whether there is a market or not). In several cases, farmers explained that more frequent, lower volume pick-ups would be preferable to have larger, less frequent pick-ups.

“I can’t turn the cows off!”

“Balancing production was a constant issue”

With that in mind, many of the farmers surveyed expressed concerns about the risk of supplying smaller-scale processors, including specialty cheesemakers, and for a wide variety of reasons. Chief amongst these concerns was potential volatility of demand from those processors for their milk, and the risks that they might end up without a market for their milk, whether due to the purchaser exceeding their capacity to produce, store, or market their products to end-consumers resulting in production cut-backs and/or the risks of smaller players going out of business. Some farmers additionally expressed concerns over general contract enforcement and worries about not being paid for milk that was delivered.

For those farmers who are currently selling their milk to co-ops, many worried about the contractual feasibility of diverting milk away from those contracts—even milk produced above their contracted quotas—for fear of being found in violation of their contract. Importantly, these farmers generally were firm in their desire to preserve their relationships with the co-ops at the same time as they sought to diversify the market channels available for their milk. While the avenues for navigating such arrangements with the co-ops remained opaque in our interviews with both farmers and cheesemakers, in our conversations with MDAR, agency representatives explained that they have been in direct communication with the co-ops and have gained a shared understanding of the value of diversification, and also outlined the process for farmers to obtain contract amendments.³

All in all, creating and guaranteeing stable demand for their milk, combined with consistent, elevated pricing significantly above what they receive in the commodity sector, were the primary drivers of both farmer interest and skepticism. By and large, farmers expressed desire for long-term contracts to help ameliorate their concerns.

“At least a year. If significant changes are required, longer”

³ See the MDAR [Dairy Co-Packing Resources](#) page for more information

4. **Willingness to adapt on-farm practices is closely tied to the security and stability of the purchasing relationship.** By and large, most farmers' willingness to adapt their farm practices to a given cheesemaker's preferences would be expressly contingent upon the costs involved in doing so, the price offered for their milk, the quantity of milk desired, and, crucially, the long-term stability of the purchasing relationship, including purchasing and pricing guarantees incorporated into contracts. These same principles were at work with respect to farmers' expressed willingness to adjust the scale of their operations to accommodate any given buyer.

"I would have to listen to ideas and weigh my odds and try to make a sound business decision"

"It all depends on the practice and whether it makes sense for us financially."

"If the market is stable we'd do whatever we need to meet market demands and keep milking cows!"

5. **In general, farmers will not deliver milk to cheesemakers.** A majority (9 of 14) of farmers explained that they do not have and would not be willing to build the capacity to deliver milk to cheesemakers or other specialty processors under any circumstances. This is due to a lack of vehicles and shortages of labor, and has been additionally reinforced by the historical dominance of the co-ops in fluid milk logistics operations. For this reason, many of the farmers did not have strong views on the importance of geographic proximity to cheesemakers.

"The tank that I'm using should be full. I would need to get paid well for trucking for it to be worth my time."

"It has to make business sense"

For those farmers who said they might consider delivering milk to cheesemakers, most would need to procure additional vehicles, bulk tanks, and storage equipment in order to do so, and explained that it would only be worthwhile in exchange for guaranteed order minimums and pricing and within narrowly defined distances.

6. **Similar to the sentiments expressed by cheesemakers, personal relationships and trust are essential for the creation of any business relationship.** This deep desire for trust is underpinned by pervasive and founded anxieties about the power which large buyers have come to hold over their income, operations, and futures, as well as acute awarenesses of the potential volatility involved with working exclusively with smaller processors. While secure and predictable contract terms are requisite for most farmers to entertain the idea of supplying smaller scale cheesemakers, it appears in many cases that developing a sense of mutual understanding and alignment on an interpersonal level is equally essential, especially for smaller farms.

"Would like a relationship that is equitable, clearly defined and has good communication"

“This has to be a relationship built on trust”

“...stability, communication, PLEASE!”

7. **Across the board, farmers expressed strong interest in and need for many different kinds of technical assistance.** These included many calls for assistance with contract writing and negotiation, as well as the management and enforcement of contracts already in effect, and encompassed asks for assistance with conflict mediation, payment disputes and remediation, as well as brand identity encroachment, with farmers requesting administrative and legal supports as needed within these purviews. Farmers’ desires in this regard spanned working with new potential buyers, as well as with the co-ops to which many of the farmers already sell.

“Over the years more requirements and conditions for reaching the premium were added without paying more for the milk”

“The contracts [with the cheesemaker]...were always very one-sided and never offered any protections for the producers”

“You weren’t supposed to talk to anybody about your Horizon contract, weren’t supposed to show it to anybody, weren’t to discuss pricing – it was like an NDA”

Farmers also expressed needs pertaining to short, medium, and long-term business planning, including financial planning, record-keeping, regulatory compliance, permitting, retail business development and marketing, and grant writing and eligibility support. In multiple instances, farmers expressed confusion and/or suspicion as to how grant eligibilities and allocations were determined, sentiments which stemmed both from a lack of comfort with the applications and awards processes, as well as more pervasive frustration with processes which they felt lacked transparency, and/or were structured in such a ways that disadvantaged smaller farmers, who may lack matching funding or the ability to self-fund in advance of reimbursements.

Many farmers also seemed to experience challenges navigating the web of resources already in place, and in some cases seemed either unaware of the types and locations of technical assistance programs available to them, and/or expressed feelings of anxiety and intimidation about engaging with those resources.

“How does a farmer even start??”

In contrast to the farmers who experienced these difficulties stood a small number of farmers who had secured advisors to help them navigate the bureaucracy of pertinent programs available to them, and who helped farmers to organize and prioritize the type of assistance and resources to seek out. Notably, multiple farmers in Vermont described getting this kind of case management assistance through the

Vermont Farm & Forest Viability Program, which they described as invaluable in helping them navigate the resource web available to them.

- 8. Demand for on-farm infrastructure was widespread, with many of the smaller farmers expressing interest in developing their own on-farm value-added processing capacity.** Interest in these types of facilities spanned a variety of products, including producing yoghurt, cultured milk beverages, butter, and fresh cheeses. Multiple farmers were interested in setting up their own bottling lines as well, with several of the farmers interviewed already engaged in raw milk bottling operations, and other interested in standing up their own pasteurized bottling operations on-farm.

This interest in producing value-added products under their own brands often extended to openness to engaging in co-packing arrangements, although a plurality of farmers engaged were unfamiliar with the vocabulary of co-packing, and were additionally unfamiliar with the types of contract structures, logistical requirements, and potential availability of such opportunities nearby.⁴

In several instances, farmers expressed interest in a model that appears to hybridize the producer/processor relationship, looking toward localized co-op/processor models that would be jointly owned by small groups of farmers engaged in similar production practices, spreading the risk across the group while still preserving local control over production and processing capacity. As described, such entities/business relationships would offer logistics, processing, and marketing facilities and support to help clusters of farmers collaborate independently of commodity sales relationships and at a localized scale.

Oftentimes, the farmers most interested in producing their own value-added goods were already involved in lines of business other than fluid milk sales, including farm activities as wide-ranging as vegetable growing, sugaring, chicken and eggs production, beef and pork production, beer brewing, and restaurateurial endeavors. The common thread through their mutual interests in these activities was a strong sense that their farms needed to diversify their operations in order to gain independence from business arrangements which left them unduly exposed to individual buyers, in order to achieve financial security and survive.

Across the board, farmers expressed that funding for equipment and facility renovations posed a barrier to accessing these types of opportunities, whether those involved processing their own milk and/or retrofitting farm facilities to adapt to cheesemakers' requirements and preferences. Often, farmers expressed frustration with grant programs that required matching capital or were administered as

⁴ Note: Both preceding and concurrently with this study, MDAR has been engaged in ongoing outreach to farmers in Massachusetts about co-packing opportunities which might help them diversify their business models and income streams. In addition to cataloguing all of the raw milk processors in the state, MDAR most recently hosted an educational work-shop for farmers interesting in learning more about these opportunities in February 2022.

reimbursements, citing the up-front costs themselves as prohibitive of engaging with and securing many grant-funding opportunities.

FINDINGS SUMMARY: COMMON GROUND AND GAPS

With the above findings in mind, there are a number of key themes that deserve additional emphasis.

1. **The price seems right, but concerns about demand and supply volatility are prominent.** In general, it seems clear that the milk prices offered by cheesemakers will be sufficiently high to meet farmers' needs. However, cheesemakers— particularly the smaller operations— are hesitant to make commitments with respect to guaranteeing purchase quantities as they navigate scaling up their operations, a state of affairs which is likely to give many farmers pause as they consider diverting milk away from co-op contracts and other pre-existing processing relationships.
2. **Cheesemakers and farmers have differing views on the role and value of contracts in promoting stability, although everyone centers the importance of mutual senses of agency, security, and trust.** By and large, cheesemakers were hesitant to offer contract terms lasting longer than one year, particularly at the beginning of a purchasing relationship and while milk characteristics and farm practices are still under assessment. For their part, farmers see longer term contracts as an important part of their decision-making process for engaging with a given cheesemaker, especially if the arrangement will require them to divert milk from an existing contract with a co-op and/or adapt their farm practices to meet cheesemaker requirements and preferences.

In this gap, senses of mutual trust— or lack thereof— will likely play a significant role in the early stages of developing viable business relationships. For farmers, the idea of risk/demand disruption insurance programs guaranteed by third-party agencies came up multiple times as a type of program and support structure that could help to ameliorate some of their concerns in this regard, and make them more likely/able to take on direct supply relationships with cheesemakers.

3. **Cheesemakers and farmers are not aligned on the role and acceptability of fermented feeds.** Simply put, participating cheesemakers expressed strong stated preferences— and in some cases requirements— for milk produced without the use of the fermented feeds. Meanwhile, participating farmers overwhelmingly stated they use fermented feed in their operations, at the very least for the winter months, and that switching over to an entirely unfermented feed regimen for their herds would come with significant supply and infrastructure costs.
4. **Nobody wants to transport milk.** In general, farmers do not have the capacity to deliver milk to cheesemakers, and those that might have the ability under certain conditions are skeptical of taking on the responsibility of doing so. Cheesemakers, meanwhile, accept that the responsibility of picking up milk will fall to them, but are eager to find alternatives to running these logistics operations themselves.

Historically, the co-ops have dominated the fluid milk logistics space, and both cheesemakers and farmers expressed some openness to exploring direct sales relationships between them but which preserved and/or created opportunities for the co-ops' continued involvement as logistics operators, so long as the integrity of the supply relationship/milk quality and origination between the farmers and cheesemakers could be preserved, traced, and guaranteed.

5. **Fundable infrastructure can open doors at both the cheesemaker and farm level.** For both sets of stakeholders, it is clear that some broadly distributed investment in equipment and facility upgrades may be necessary to for farmers and cheesemakers to sustainably and efficiently engage with one another, including investments on-farm, at creameries, and in the transportation sector.
6. **Some players want to stay small.** For both cheesemakers and farmers, the desire and impetus to scale their operations was not uniform. Indeed, two of the four cheesemakers interviewed established clear limits on their desire to expand their operations, just as many of the farmers interviewed expressed desires to make their current scale of operation more financially sustainable as opposed to seeing the opportunities presented by specialty cheesemakers as enticements towards outright growth.
7. **From a match-making perspective, there seems to be ample interest from both cheesemakers and farmers to make these new supply chain relationships possible, and the geographies are often amenable too.** In keeping with our hypotheses built into the farm selection criteria, in the course of research, the team identified at least 15 potential matches between cheesemakers and milk producers. With each of these matches, it was deemed through the selection, survey, and interview processes that there was sufficient alignment between cheesemakers and farmers with respect to interest, geographic proximity, scale, desired practices, and adaptability to warrant introductions by NE-DBIC or another intermediary, and to define in more granular detail what types of actions and support would be necessary in order to cement purchasing relationships between the parties.

RECOMMENDATIONS

The recommendations below are organized by intervention type, and are listed in the order in which we believe they should be prioritized for implementation:

ORGANIZE

1. **Allow mutual interest and geographic proximity to guide cheesemaker-farmer connection efforts.** More than anything else that came through during project outreach and interviews, it seems clear that mutual interest in pursuing direct purchasing relationships on the part of cheesemakers and farmers, when combined with geographic proximity, provides ample grounds to make introductions between the interested parties. This includes cases where desired and actual farm practices might be misaligned, provided both parties have indicated a mutual willingness to adapt their expectations and practices.

2. **Focus on developing trust.** In addition to making introductions between known potential matches and supporting those parties throughout the development of their business relationships, NE-DBIC should work to proactively bring together milk producers with specialty cheesemakers and other small-scale processors in ways that develop interpersonal relationships and foster trust. Such programming could be in the form of shared educational and networking events, and/or could involve programs designed to provide scaffolding throughout the contract negotiation process and early parts of contract activation once business ties have been established. What's clear from our research is that risk tolerance and trust are closely tied to one another, particularly for farmers. As a result, we believe that programming that centers the development and preservation of mutual trust between farmers and processors will accrue benefits across NE-DBIC's business relationship connection and support efforts.
3. **Work with farmers, specialty processors, and co-ops to create model contract arrangements which more readily facilitate milk diversion outside of the commodity sector, while still preserving commodity sales channels to promote stability of income, demand, and supply for all players involved.** As described above, MDAR has been actively engaging with co-ops on this very subject as part of their on-going work to support dairy farmers who wish to pursue co-packing arrangements for value added products. We recommend that NE-DBIC coordinate with MDAR to pursue such negotiations to fruition.
4. **Develop programming that encourages and supports adaptability at both the milk production and cheese processing ends.** Such programming could include programs to fund the infrastructural adaptations necessary to make unfermented feeding regimens more financially viable for farmers, such as grant funding and financing to help farmers build feed storage facilities suitable for dry hay, as well as investments in pastures to help retrofit them to produce adequate dry hay to feed herds year-round where possible.

However, this work should also include programs geared towards cheesemakers to entice and help them embrace the production of cheeses which not only tolerate the types of fermented feed regimens already in practice throughout the region, but which depend on them. This could include education programming to help cheesemakers identify types of cheeses which are amenable to and/or require milk produced using fermented feed regimens, and could additionally include marketing supports designed to help raise awareness of these cheese types amongst customers, support/enhance an understanding of regional terroir, verify product quality and authenticity in the eyes of the public, and elevate product value and brand reach for these cheese types within the specialty cheese marketplace.

INVEST

1. **Invest in the provision of technical assistance programming and case management capacity to help farmers more successfully and confidently navigate and access the broader web of technical support services already on offer**, including business planning, on-farm operations, legal consultation, contract

negotiation and enforcement, regulatory compliance and permitting, retail sales development, and financial advisement. As mentioned above, several farmers in the Vermont cohort had secured such assistance through the Vermont Farm & Forest Viability Program,⁵ which they described as tremendously helpful, whereas others had not yet been able to successfully access technical assistance resources directly, and/or were either not aware of or were reluctant to take advantage of supports available. We believe that such case management and resource navigation assistance could dramatically increase the rates at which farmers accessed existing financial and technical supports, and commensurately increase their relative risk tolerance for engaging in more localized and diversified sales and purchasing relationships, such as those with local and regional cheesemakers.

2. **Expand grant funding and low-interest financing programs for small and medium scale equipment and infrastructure at the cheesemaker and farmer levels.** As described above and throughout the survey responses, there is abundant evidence that relatively small infusions of capital could unlock significant production capacity for both farmers and cheesemakers alike, and create additional market bandwidth for all players involved. To be most effective and to avoid barriers created by the funding programs themselves (which seem to most acutely impact smaller farmers and cheesemakers), such programs should consider structures that do not require matching capital, and/or which do not employ reimbursement frameworks which require grantees/loan recipients to shell-out resources up-front.
3. **Invest in the proliferation of localized value-added processing capacity, including the development and deployment of alternative producer-processor relational models.** This could include providing funding and technical assistance to farmers interested in creating small-scale, local, and independent co-op models, services, and facilities, including opportunities for shared hauling, processing, and marketing opportunities and equipment. Such programming could be launched in coordination with partners such as The Cooperative Development Institute,⁶ who have 20 years of experience supporting the development of cooperative food enterprises in the Northeast, and/or could provide funding to groups of farmers looking to engage the services and assistance of those outside partners.

This could also include targeting programs to support the growth of value-added dairy processors further north in Vermont to create value-added market channels for farmers in that region. During our initial outreach to farmers, we received a significant number of interested responses from farmers in the far northern portions of Vermont, prohibitively far from this study's participating cheesemakers. We recommend that NE-DBIC seek to proactively invest in and support private sector businesses that will add value-added processing capacity to regions where that capacity is currently weak and where significant farmer interest has made itself apparent.

⁵ See [Vermont Farm & Forest Viability Program: Business Advising](#) for more information

⁶ See [The Cooperative Development Institute](#) for more information

EXPLORE

1. **Explore the feasibility of supporting the proliferation of third-party hauling services** in order to help connect small scale farmers and processors who might be otherwise unable to conduct business with one another. (Beyond those who simply don't have the capacity to haul milk, virtually everyone spoken to expressed an aversion to taking on this responsibility. Properly studied and supported, there appears the potential for a significant intermediary market for hauling services within and across the study region).
2. **Research the feasibility and costs of developing, standing up, and administrating contract and income insurance programs to help stabilize pricing for farmers during supply-demand imbalances with local processors.** Such programs could function so that participating farmers and cheesemakers buy into a common fund designed to help stabilize income flows for all parties involved, and/or could be administrated by private/third-party insurance carriers working within designated parameters. Critically, our research showed that programs of this sort could go a long way towards ameliorating farmer concerns about demand volatility, and make them commensurately more willing to engage in dedicated purchasing relationships with smaller cheesemaking operators.
3. **Across all purviews described above, ensure that support programming considers the needs of the smallest players on both sides of the purchasing relationship, with an eye towards replicability as opposed to scalability.** As described above, purchasing/production relationships between the smallest cheesemakers and farmers are often understood to be/idealized as the most desirable from a perceived quality, operational perspective, and with perceived advantages for marketing as well. However, these same relationships also expose both cheesemakers and farmers to elevated levels of risk from a price/demand/supply perspective, and are in many ways the most volatile form of localized purchasing arrangement (i.e., neither player has much in the way of capacity to absorb and/or smooth over the impacts of disruption from their purchasing partner). Moreover, as was made clear during the cheesemaker selection process, there aren't always interested processors of sufficient scale available to mitigate these potential volatilities and/or provide adequate capacity to engage the preponderance of interested farmers within a suitable geographic distance. With this in mind, we recommend ensuring that the support programs developed to foster business relationships between specialty cheesemakers and farmers include provisions targeted towards reducing the overall and specific risks for the smallest, most individuated value-added processing and milk purchasing arrangements, and incorporate a commitment to supporting those operators who are seeking to stay small.