Locally Grown Vegetable Processing Facility Feasibility Study

PROJECT OVERVIEW

Institutional buyers in the Dane County, WI area represent a substantial potential market for Wisconsin-grown produce. A persistent barrier to purchasing locally grown produce is lack of in-house processing capacity and access to local product through approved distributors. For institutional buyers, high volumes of raw product require it be purchased as a ready-to-eat (RTE) product, which severely limits local options. Purchase from local producers remains contingent upon securing a separate bid for a third party processor. While "ad hoc" opportunities to minimally process produce have been used, supply is not consistent or easily scalable.

This project explored institutional demand through new supply channels that provide a logistical coordination role, value-added processing, and a relatively focused geographical market. With this USDA LFPP Planning Grant, REAP Food Group convened a project team around a planning and feasibility analysis for the creation of a commercial regional processing facility so we can grow the regional food value chain in the greater Madison (8-county) region in Wisconsin. Through this project, we intended to 1) identify market demand for both minimally processed and other value added processing of vegetables, 2) lay out a business and sustainability plan for scaled up commercial vegetable processing, and 3) strengthen the network of institutions and producers in the value chain.

KEY PROJECT HIGHLIGHTS

- 1. Attended the National Good Food Network conference. Established contacts from other processing projects across the US, glean tangible examples of best practices (and lessons learned) to report back to project team.
- 2. Worked with DATCP, CIAS and Farm to College Communities of Practice (COP) to identify customers for the processing facility. The DATCP Farm to Institutions director provided contacts to both growers and school districts to talk to about their food programs. Farm to College COP had two calls, and we conducted several one-on-one interviews. COVID made it challenging to connect with food service directors in schools, colleges and hospitals because of their complete overhaul of their food programs and the long road back to the resumption of normal service. A new institutional customer, however, arose during COVID: emergency food programs. Food banks became a new institutional player in the local food system in southern Wisconsin due to the large state and federal grant programs. We are excited to continue building out this supply chain.
- 3. Conducted a survey of our Atlas member farmers to gauge interest in wholesaling and what challenges farmers have faced in getting into wholesaling to institutions.
- 4. Collected and reviewed data on facilities and equipment, production processes, and researched potential food safety frameworks.
- 5. Drafted a financial feasibility pro-forma, reviewing and analyzing capital needs, operating costs and net revenue for three processing scenarios.

CHALLENGES AND KEY LEARNINGS

The impact of COVID on our food system through the duration of this study cannot be overstated and greatly impacted our ability to collect and analyze data because there was such a stark line between pre-COVID and COVID times. COVID dramatically highlighted the problems in our local food system, and also greatly shaped the challenges and needs in the farm to institution supply chain.

- SCHOOLS: School lunch programs were dramatically interrupted and had to change on the fly, and some of those changes are sticking around even after schools opened back up, i.e. more single-serving prepackaged foods, for example, and zero to limited self-serve stations, like salad bars.
- HOSPITALS: Cafeterias completely closed to the public and hospitals greatly restricted deliveries to just a small number of vital distributors. We struggled to make connections with food service managers, and due to ongoing COVID challenges, and we did not resume outreach efforts regarding their interest in local purchasing for this study.
- EMERGENCY FOOD SYSTEM: Food banks and other emergency food programs emerged as a new
 institutional purchaser of local foods due to COVID and the state and federal programs that gave huge
 sums of money to food banks to buy Wisconsin-grown produce. Future market research should continue
 to explore opportunities to sell to area emergency food programs. But there is a concern that when the
 influx of federal money goes away from building this channel that maintaining purchasing relationships or
 programs will be challenging.
- PRODUCT VARIABILITY: Through our research we have learned that local produce purchased from a
 multitude of small farms with differing soils will have much greater variability in size and cannot be easily
 processed in automated chopping machines. This means our facility will need to plan for a lot of handchopping and will need to budget for substantially more labor hours than a similar facility that purchases
 produce all with a standardized size. The two benefits are that start-up costs will be lower due to not
 needing to finance the purchasing of very expensive cutting machines, and we will need less square
 footage for processing.
- LABOR CHURN & STAFFING SHORTAGES: COVID created tremendous labor churn in the food and beverage industry that impacted small and large food service kitchens alike. Severe labor shortages dramatically increased wages and labor costs, by upwards of \$5 per hour. Because processing of local produce will be labor-intensive, this had a big impact on the volume we would need to process for the business to be financially sustainable, and it highlighted the fact that we do not have a large enough local supply chain for the facility. With higher labor costs we either need to process more, increase the cost of the final products, or build a volunteer labor program. Volunteer labor is not a strategy REAP wanted to pursue, but is something that would likely need to be explored. We have also begun work on a second project with our farmers, Wholesale Readiness, to build a larger local supply chain.

COMMUNITY PARTNERSHIPS

Our community partners for the duration of this project included our 88 Farm Fresh Atlas partners (farmers and small food businesses), the Farm to Colleges Community of Practices network (which has since disbanded), Center for Integrated Agriculture at the UW-Wisconsin, the Farm to School Manager at the State of Wisconsin's DATCP, Madison Metropolitan School District, and UW-Extension food systems staff. As we started developing a technical assistance program for farmers to become wholesale ready, we have developed a new

partnership with UW-Madison Extension on the development of self-assessment and online business planning tools for farmers.

DATCP and UW partners have provided us with valuable connections to institutional buyers, like colleges and regional school districts. Conversations with these partners have provided valuable insight as to how their local food programs are changing and adapting to COVID and what they might look like when operations return to pre-COVID normalcy. A socially-distanced tour of a future commercial kitchen operation gave us valuable insight into space needs and layout. As we work to broaden our partnerships across the region, and connect with more institutions, we will be able to deepen our understanding of the market demand for locally grown processed produce, and solidify relationships.

While we paused all hospital outreach for the remainder of the project we pursued relationships with emergency food programs and food banks, and how we can provide technical assistance or make connections with more farmers for them.

We conducted interviews with food hubs and for-profit vegetable processing facilities in various parts of the country, and analysis of their business models. Due to our findings about labor costs and what the pro-forma is showing about the scale we would need to reach to be financially sustainable, we added two additional models for processing to our research -1.) subcontracting with an existing processor, and 2.) a consulting model to assist institutions with setting up in-house processing systems for locally grown vegetables.

The Madison Metropolitan School District is an ongoing partner through our Fresh Fruit and Vegetable Snack program, and has pledged to provide feedback on our Wholesale Readiness Program, which is an offshoot of this grant to build a stronger local supply chain. UW and Extension are working with us as well, helping develop technical training materials for farmers on growing for schools and institutional partners.

Madison Metropolitan School District: MMSD is always looking for fresh processed vegetables, like broccoli, cauliflower, squash and bell peppers – produce that they cannot easily process in a Robo-Coupe (a type of food processor) in their kitchen. They have had a declining number of Request for Information (RFI) applications from area farms to sell to the district the past five years and so we are working together to open up the process and get more farmers approved and set up as vendors. Currently, the kitchen is very short staffed so they are buying more Ready-to-Eat items from their mainline distributor than before. They hope as they fill job openings to return to more in-house processing.

EPIC Corporate Campus: Their kitchen culture is to buy everything unprocessed and process it in-house so they can provide maximum jobs. There are big, monthly events, however, that they need to buy in some processed products because of capacity issues. They would be very interested in locally grown processed items, particularly if they could be packed in individual portion sizes for box lunches for these events. They have some capacity to receive and process excess crops, and so can be an outlet for farms/aggregators to check with if they lose a market or have an unexpected bumper crop.

Sauk Prairie Health System: They also do all of their own processing in-house, and pre-COVID were purchasing local products from three different distributors and directly from a few area farms. They had to restrict the number of deliveries each week, however, once COVID hit, and closed down their public cafeteria, so they are currently buying much less local product. Their intention is to open back up at some point, however, and their long-term goal is to reach 30% locally grown produce. This is a small hospital system, serving less than 2,000 meals a day.

Over the past two years we have had extensive conversations with community stakeholders about what we were learning and how it was shifting our outlook on our ability to launch a processing facility on our own. While we have not done any formal surveys or questionnaires, the feedback we have received has generally been that this facility would be a huge benefit to this community and that there are several willing organizations to potentially partner with.

PROJECT FINDINGS

REAP began exploring how to supply locally grown ready-to-use produce to institutions back in 2018 when we launched a pilot project to process locally grown cauliflower and broccoli in a rented facility. The learnings from this pilot were steep - processing locally grown produce is a labor-intensive process with slim margins. It is human-intensive - very little can be automated and relationship building with both your buyers and farmers is essential. But, institutional buyers have identified this gap in supply-chain, that is to have ready-to-use produce, as one of the biggest barriers in local purchasing. The physical and organizational structure of most institutional kitchens at hospitals and schools are not organized in such a way that they are able to clean and chop raw produce efficiently.

And, on the production side- this value-added piece is nearly impossible for farmers to incorporate on-farm due to food-safety laws and the required labor and infrastructure. This limits opportunities for growth in the local economy on both sides. A centralized processing facility that can address this issue for both producers and buyers will not only increase the flow of local product into schools and hospitals but also create opportunities for supply-chain integration that are agile enough to accommodate small to mid-scale area farms and flexible in a way that allows for scale-up.

So this is an important nut for us to crack. This 2019-2022 feasibility study was to dig deeper into the business planning side of launching a facility, what the scale of processing would need to be to be sustainable, what volumes would our institutional partners be willing to purchase, where would the price point need to be to be competitive and affordable, and what is the current status of our supply chain and what growth would be required to keep the facility in full production.

LESSONS LEARNED

One of the first places to start is, if there is demand for processed locally grown vegetables, why aren't current processors serving this need?

Our Food Finance Institute partners interviewed the CEO of a Wisconsin processor to get his take and his comments were enlightening. His top takeaways were that changes over the past decade in food safety laws have created huge limitations for large buyers in being able to have a diverse supply chain. In the current farming climate most of the regulatory responsibilities fall on the farmer, and the small farmers don't have the capital or infrastructure to meet the stringent requirements, even though they are running safe and clean farms. Food hubs and produce markets, that used to serve many small farms, have disappeared due to the FSMA regulations that buyers are required to meet (traceability in particular). A few processor models that seem to be having success rely on the processor doing their own trucking, picking up directly from farms, managing the whole process from farms to shelves.

Lastly, attaining critical mass (volume) of a single product is a greater challenge in the Midwest due to our soil types and shorter growing season. Large scale farms in California, Florida and Texas have the ability to grow high volumes in very uniform sizes, which in turn greatly reduces the energy (carbon footprint) needed to get

the product into processing. Reduced carbon footprint is not attainable by buying local at a small scale - though we point out that there are many other advantages and reasons for having a strong and diverse locally grown supply chain, including improved soil health and insect and bird populations, and a more resilient and sustainable local economy, and improved access to fresher and more nutritious produce.

PROCESSING FACILITY OVERVIEW

Our key partner in this project, the Food Finance Institute, explored possible business models and the financial feasibility of a facility. They researched the market rates of two products, chopped cauliflower and broccoli, and built a pro-forma around keeping our pricing competitive on those products.

FINANCIAL & TECHNICAL FEASIBILITY

Determining Facility Size for a Commercial Facility

The market for processed vegetables is large and ubiquitous to any dining facility. To create a meaningful impact to local farmers, a target of 35,000 lbs. of processed vegetables per month has been assessed. This was determined using a couple of factors. First is that, in order to create efficiencies in manufacturing, you must run at a scale that allows processing to run as continuously as possible. Broadly, this allows you to cover overhead and keep full time staff employed. On a per item basis, this means having enough volume of one product to run a large enough processing batch. Process changes in manufacturing are highly inefficient and slow the rate of output. Second, you need the right amount of space to handle moving that product from raw intake to finished processed product. At a 35,000 pounds/month run rate, this translates to approximately 35 pallets of finished product per month or 1.66 pallets per working day (21 days per month). To accommodate 35,000 lbs. of finished product flow through a processing facility, an estimate of 140 square feet will be needed per pallet of finished goods. This accounts for pallets of raw vegetables waiting to be processed, washing space, cutting tables, personnel flow, office, finished product, cooler space, shipping space, etc. This translates to a facility that is approximately 5,000 square feet.

From REAP's pilot vegetable processing work, that occurred in 2019, manual vegetable cutting resulted in a 12 lbs/hr finished product per person per 8 hours of processing (note: this is directly related to processing people, not supervision etc and included setup time, teardown and washup time.) Therefore, a 5,000 sq ft facility running at a capacity of 35,000/lbs/month results in 18 direct processing workers. Cost of labor per hour was calculated to be \$13.79/hour (inclusive of fringe amounts on \$12/hr).

Facility design for this locally-grown lightly processed vegetable facility is actually quite simple due to the fact that locally grown produce is not generally uniform enough in shape or size to allow for automation, thus most products will need to be hand chopped by people. This means we don't need to allot space to huge \$200,000 pieces of equipment. We do need adequate cooler storage, wash sinks and tanks, work tables, knives, simple sealing machines and printers for bags and labels.

A facility manager's pay at \$50,000/yr and accounting services of \$200/wk, which results in an expense of \$4366/month.

The Cost of Goods (COGS) as related to the REAP Pilot

COGS are the direct costs related to the actual production of the product. Based of the results of the pilot processing at Madison College and a second source with the same results were as follows:

- Produce cost \$.80/lb. at a 65% waste resulting in \$1.23/lb. finished goods
- Labor \$12/hr (which in this day is low) times 1.1 for taxes and 12 lbs finished goods per hour results in \$1.10 of direct labor per pound
- Packaging \$.075 per finished pound, this includes box, bags, labels, and tape

Result - \$2.41/lb of finished produce before building facility overhead costs. REAP added \$.16 for storage costs and a 10% markup resulting is a sell price of \$2.82. Keep in mind there are no building costs included in this pilot.

When you hone in on broccoli, for example, you are selling broccoli at \$2.82/lb to the distributor. Broccoli accounted for 70% of the produce demand. Average broadline food service delivered cost was \$2.77/lb at the time of this exercise. In the pilot, the distributor used was a local Madison distributor who charged \$2.00/20 lbs case to deliver the product to the end customer resulting in \$2.92 delivered to the customer or only 5.4% higher than a typical broad liner (Sysco, US Foods, Gordon's) resulting in a competitive price for the benefit of buying local.

This is not a normal cost assignment. Again, let's start with the \$2.82/lb. Another factor that was not accounted for in the pilot was what is referred to as shrinkage, or spoilage. Produce is at high risk for spoilage or non-conformity to customer specifications. An example would be, shelf stable items (not at risk) still carry a shrinkage of 1%-2% due to breakage and processing defects. Produce shrinkage goes as high as 10%-15% and needs to be covered in the price sold to the distributor. Therefore the \$2.82/lb results in \$3.10/lb. sell price to the distributor. Typical distributors add 30%-35% MARGIN, not markup. Which means that the distributor takes 30%-35% of the delivered price. Golden did state that they would negotiate the margin rate and maybe agree to 25% margin which results in a \$4.13/lb delivered to the customer, or 49% higher than the broad liners. This can be a challenge to purchasers in the institutional channel and present a continued purchasing barrier due to price.

Translating the Pilot to a full functional facility

If we stick with \$.80/lb cost assumption for raw produce and work through the exercise using costs related to a 5000/sq ft facility and add the COGS (labor, building, shrinkage, overhead) to the \$.80, we result in a \$3.04 cost/pound before any profit. REAP had assigned approximately a 10% markup resulting in a \$3.31 FOB (freight on board) sell price to the distributor. The \$3.31/lb was used as the average sell price per lb in calculating the annual income as related to the 5000 sq ft building. (see spreadsheet for reference) Operating at 100% capacity (35,000 lbs) for 12 months using one shift 5 days a week results in an annual income of \$114,485. The number of months that the facility can operate during a calendar year has a significant impact as well. As we know, Wisconsin's growing season is quite short. To maximize the months to 6 per year an expansion into early vegetables might need to be added in addition to season extension strategies such as adding frozen vegetables into the early winter months as well.

Here are a couple of other scenarios.

Capacity (%)	Months	Annual income
100	12	\$114,485
75	12	-\$232,707
50	12	-\$579,900

100	6	-\$35,545
75	6	-\$209,142

Income can be increased significantly by increasing the price sold to the distributor due to the influence of 35,000/month. But, herein lies a key challenge: the challenge of converting customers from low cost processed vegetables to a local higher priced vegetable. These institutional customers run on budgets and cannot readily increase the price to the persons eating the produce.

Other major factors that affect utilizing local vegetable because of our key interviews

Wisconsin vegetable production is typically not at a scale that provides reliable volume sources. Wisconsin weather affects produce uniformity. Wisconsin weather also affects reliable harvest and distribution. Buyers rely on products arriving at specific times. Typical businesses run on a system referred to JIT (Just In Time) inventory so the end customer does not have much wiggle room for deviation. These factors can be mitigated by holding higher raw inventory levels but that also carries risk on shelf life resulting in higher costs.

Pro-Forma Feasibility Conclusion

Based on the above assumptions, it is possible for REAP, to locally process vegetables, to make a profit and loss statement showing a positive number. However, key elements such as the **sell price** and **sales volume** (% capacity of the facility) are volatile and cannot be predicted or forecasted with a clear set of assumptions at this time. Institutions are starting to bounce back after losing key customers and suppliers during the pandemic and we have yet to see what the real picture of demand is locally. We modeled capacity based on running one eight-hour shift per normal workday. Weekends and 2nd shifts can be added if demand calls for it and would greatly reduce the facility monthly input cost per pound of vegetable. But again, these require the appropriate balance of supply and demand, which should be reassessed in 2023/2024.

The spreadsheet also has a space to input money donated to building costs, which could dramatically reduce the monthly facility costs. REAP is very good at raising money and this would be a great place to invest fundraising energy to offset costs of financing. Volunteer labor is another great option for reducing labor costs, but it was not considered in this case as REAP's business model would like to include paying for labor. In addition, running a vegetable processing facility would require someone to be a processing facility manager that would need to have a full host of food safety training to train staff, manage production, secure supply, and so on. And, if there are months the facility isn't full or product isn't selling REAP will have to find a way to absorb or subsidize those costs with money from other sources.

As a result, this is a very risky proposal. There are so many uncontrollable factors that affect reliability. To achieve local vegetables in mainstream distribution, a processing partner would be a good idea to shift the risk and liability away from REAP. Selling and maintaining a substantial customer base will continue to be a challenge due to the delivered price of the produce.

BUSINESS ENTITY

Legal research into which type of business entity would be most appropriate for this endeavor landed solidly on making the processing facility a non-profit organization. This would more easily enable the facility to apply for grants, raise contributions from within the community to cover start-up and building costs, and to solicit donations to cover operating costs until the facility achieves financial sustainability. A memo from Perkins Coie outlining the risks and benefits for REAP is available upon request to our community partners.

MARKET FEASIBILITY

COVID drastically hindered our ability to research current market demand for lightly processed local fruits and vegetables, and in identifying new regional institutions interested in buying local food. The challenges were two-fold, school and hospital food programs are currently operating drastically different food programs than they were prior to March 2020 and schools, hospitals and universities are unsure of when and how their meals programs will return to pre-COVID normalcy, making future planning challenging. Secondly, labor shortages are also hampering institutions from returning to pre-COVID food programs. Processing lines aren't running and they are buying more Read-to-Eat products because of it.

However, we do know from our 2018 processing pilot, that under normal circumstances, the demand is there. And particularly because of all of the supply chain upheaval under COVID, having a more diverse and agile supply chain has grown in importance to institutional buyers. Building nimbleness into a processing facility would need to be a priority - having the ability to switch from bulk to retail-size packaging, for example, would be an important process flow to build in.

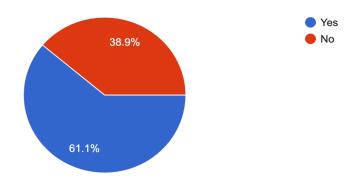
That said, while our partners and other buyers we spoke to are interested in supporting a locally grown vegetable processing facility, price is still the top consideration. While a slightly higher price can be absorbed, it has to be within reason. That's a pretty tight margin when you're looking at hand-chopping human labor versus equipment automation.

SUPPLIERS & SUPPLY CHAIN

REAP sent a survey to our 88 Atlas farmers to gauge interest in selling to institutions as well as get a sense of what farmers understood about selling to institutions or what their experiences are if they were already selling at those volumes. We received a 20% response rate from a variety of sizes and types of farms. This is not a statistically balanced sample across farm types or sizes, but provides us with some good anecdotal evidence. Here are some of the key findings.

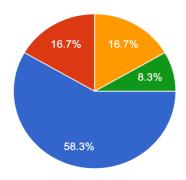
Have you ever sold product to an institutional or corporate buyer (i.e. Epic, Second Harvest, a school district, etc.)?

18 responses



If yes, do you have on-going sales or was this limited to one or two sales?

12 responses



- Ongoing (regular weekly or monthly deliveries, or recurring seasonal sales, like apples every fall)
- 1-2 sales only
- Occasional seasonal sales
- Institutions have been very patchy (1-2 sales only), we have one amazing ongoing relationship with one corporate buyer because we are good friends with the chef.

If you've sold to institutional buyers or submitted a bid, did you have a good experience? Why or why not?

8 responses

very good. These usually occur by them seeking out our product

Yes and no. We sell to one institution currently, orders are small compared to what I know they could be. We are happy for the business though. Other interactions with institutions haven't been super fruitful, orders are always small and irregular no real commitment to us that would make me feel like we are actually partners.

Yes, we've been selling to 2nd harvest through the pandemic and work with an intermediary to expedite those sales. Overall it's been a good experience although fairly hit or miss with what gets ordered.

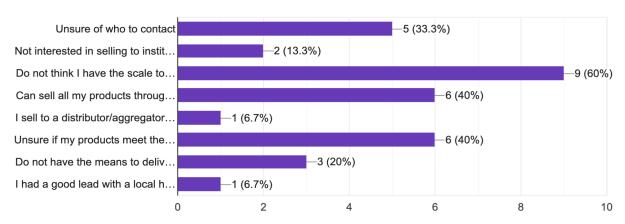
We have had good luck with Minneapolis Public Schools, we sell to Reap on and off, never had any luck with the Madison Public Schools bids.

Yes, have had good experiences. However, schools are limited in the amount of meat they are able to purchase from farmers. Dissemination of meals because of COVID has created limitations for them. The grant money for one institution dried up so therefore our sales to them dried up as well.

not great. a lot of extra paperwork and very specific hours for receiving

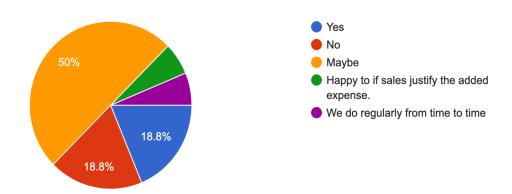
Have you approached any institutional buyers about selling to them? If not, what has prevented you from doing so?

15 responses



Are you interested in attaining food safety certification?

16 responses



What are the barriers or challenges you're facing to attain food safety certification, i.e. cost, lack of access to information or training, time, etc.

13 responses

Don't currently need it for our current markets.

time, resources, some facilities issues that we have made great strides on this year.

It is attainable

Not needed for the type of sales I do. Lack of time.

time

I haven't needed to yet with my current sales channels so I just haven't found the need to spend the resources on any food safety certs.

NA

Time and Cost

Cost, lack of time, lack of access to information

Too much bureaucracy and red tape... Personally, I don't think many of the food safety rules are legitimate or effective (and this is partly based upon my experience as a foodworker and having to take the HACCP course - what a joke!)

We have done the course work, just not interested in getting certified

Disagreement on what is more important- risk of food-borne illness (very unlikely from us small-scale, local farms) or global impact (waste)

FOOD SAFETY ISSUES

One of the biggest obstacles that emerged on both the farmer and buyer side is food safety certifications. Complying with FSMA is expensive and can feel overwhelming, but also unnecessary to small growers who personally tend to their crops, and harvest and pack much of their produce by hand. They live on the farms and drink the same water they use to irrigate. They manage small volumes of compost and don't have the runoff issues that large operations do. And while there is national movement away from strict one-size-fits-all regulations to more adaptable process control plans, which allow farms to show how their existing practices are safe and effective, FSMA is still the law and institutions are held to the highest standards in protecting their customers from food-born illnesses.

Perkins Coie's guidance on this issue, our partnering law firm on this project, was that the processing facility would be best served by holding a group GAP certification, and doing on-farm inspections with the farms we'd be buying from. Group GAP helps lift some of the burden off of the individual farmers, while at the same time strengthens the relationship between the farm and the processor. Group GAP would add to the operating

expenses of the facility, perhaps by one full staff position, but provides the clearest standards for all parties involved.

Additionally, REAP can take advantage of Cornell University's publicly available Farm Food Safety Plan template (https://gaps.cornell.edu/educational-materials/farm-food-safety-plan-template/), and begin sharing this with our Atlas farmers and connecting farmers with other technical assistance to help them find more efficient ways to document the safety of their existing process controls.

CONCLUSION

Launching a full-scale production facility would be a huge lift for REAP and one that we are not ready for at this moment. There is great community interest in a facility like this however, and possibilities for partnerships in the next few years. Recent community campaigns to fund a Madison Public Market and to support the Garver Feed Mill in Madison have proven the public appetite and interest to support local food endeavors, and bode well for a capital campaign to build out a facility. Several exciting local projects are in the works, including a terminal market that could be the nexus for getting this facility off the ground. The terminal market plans include an area for processing, and is in the process of building larger community coalitions, identifying a site and looking for funding opportunities. The City of Madison has vested resources into the development of the city market, and that groundwork has really created ripe conditions for additional infrastructure, like the terminal market and processing facility. There is a favorable media environment to generate public interest, and REAP has great relationships with chefs and institutions who will help generate publicity and financial investments.

One of the outcomes of all of the supply chain disruptions due to COVID has been increased state support and grants to grow local meat processing facilities and considerable federal investments into dairy processing. Even though there were similar disruptions in the produce market, and ongoing labor challenges in food service, similar investments haven't been made at the state or federal level in fruits and vegetables infrastructure. This is an area REAP will need to broaden our advocacy efforts to help rectify.

Labor and staffing for the processing facility would be a challenge and one of the largest expenses under this model, yet also means that start-up costs are lower because you wouldn't need to finance large pieces of equipment.

And we have work to do on the supply side, growing the number of farms who see institutions as a valuable market for them, and increasing education and implementation of on-farm food safety practices and requirements.

Next steps will be for the REAP board of directors to determine what role REAP should play in helping to get a processing facility off of the ground based on the information we have gathered during this study, and to explore partnerships with other organizations that we know are working to build infrastructure for locally grown produce and value-add products.