



Barley or Bust
from Farm to Tap in Pennsylvania

A fresh Old Hanna's Town Ale is tapped at the All Saints Brewing Launch.
Photo courtesy of Food21

by Wendy West Hickey
Media Advisor,
Food21 of Pennsylvania

Alcohol... it's only human

Almost as soon as humans became sentient beings, they began learning how to make alcohol. While it may have been discovered by accident, as early as 10 million years ago, homo sapiens found that rotten fruit had a bit of a "kick."

Pottery shards dating to the seventh millennium BCE have shown that deliberate fermentation probably originated in China, where rice, honey and fruit were fermented into an alcoholic beverage. Wine was fermented around the Black Sea in 6,000 BCE and peoples in Mesopotamia brewed beer in 3,000 BCE -- around the same time that Greeks and Romans were also discovering wine. In the Americas, Aztecs made pulque from the agave plant and the Incas brewed a corn beer called chicha.

But perhaps the biggest boon to the history of alcohol was the development of traditional agriculture. Farming made sustained brewing and distilling possible by creating a ready supply of sugars and starches that could be transformed to palatable and intoxicating drinks. Around 1,000 CE, fermentation developed further with wheat, rice, rye, oats, barley, corn, and sorghum. By 500 CE, Europeans were drinking mead, grogs, fruit wines and beer made of wheat and barley.

Fast forward to today

Today's global alcoholic drink market is valued in the tens of billions of dollars. In the late 19th and early 20th centuries, beer and spirit makers were largely regional affairs with many family-owned breweries and distilleries. By the end of Prohibition, the market was driven by a number of large-scale, multinational players. But increasingly, consumer choice and



entrepreneurship have given rise to the craft beer and boutique distillery markets. According to the Brewers Association, the craft brewing industry contributed more than \$76.3 billion to the economy in 2021, creating nearly half a million jobs. And the burgeoning craft spirits market is valued at over \$13 billion and growing quickly.

Pennsylvania is second only to California in the U.S. craft beer economy. There are 486 licensed breweries, contributing \$5.4 billion to the state's economy. The growth in the industry has been astounding.

According to Adam Harris, Executive Director of the Brewers of PA, "Beer as a segment has remained a strong component of the total alcohol market and we like to think that is because we are putting out fresh and unique beers every day. Our organization has grown from the couple dozen members who founded the BOP in 2010 to well over 200. We also have over 100 associate members who provide services like insurance and sell brewers products such as malt, hops, barley, and brewing equipment."

"Whenever possible," Harris continues, "I know our brewers prefer to use local ingredients -- though some malts necessarily come from Europe for certain beers."

Buy Fresh, Buy Local

The rise of craft brewing predated the growth of the U.S. trend toward "buying local," and its acceleration due to the COVID-19 pandemic. Reflecting deep shifts in consumer demographics, the push to sell has been replaced by the demand to buy. Two surveys taken by RetailWire showed that 56% of respondents were buying more locally sourced products during the lockdown and that 84% of them planned to continue doing so long-term.

"That's one of the things that the pandemic really exposed," said Joe Bute, President of Food21, "what happens when you depend on a global supply chain -- which everybody thought was very resilient and robust. It turns out it was fragile and very easy to break apart."

Over time, farmers have responded to the "buy local" trend by producing organic crops. Still others have participated in Community Supported Agriculture (CSA), providing fresh produce and other consumables directly to local residents and bypassing large retailers and grocers throughout the growing season in exchange for an initial cash investment.

In 2020, the USDA estimated that there were over 7,000 farms

participating in CSA, accounting for \$226 million in direct-to-consumer sales. In Pennsylvania, Penn State Extension estimated that between 30-50,000 consumers have embraced these buy-local opportunities.

But for craft brewers in Pennsylvania, local ingredients are hard to find. Most of the world's malted barley export comes from Australia, closely followed by France, Ukraine, Russia, and Canada. Montana, North Dakota, and Idaho grow the most US barley used in malt (which is then exported to Canada for processing), and often brewers obtain malted barley from Canada and Germany.

"The war in Ukraine has severely limited barley exports," Bute pointed out, "and has impacted the breweries throughout Europe."

So, are local beers really... local? Are craft brewers interested in making them so -- enough, for example, to encourage PA farmers to add hops or barley into their annual crop rotations?

This was the question that Food21 of Pennsylvania sought to answer.

The Food21 model

Food21 of Pennsylvania created its Value Center in 2020. The Value Center focuses on developing local food value chains that increase the viability and impact of regional food systems -- from farmer to processor to packager to distributor to retailer to consumer. An effective food value chain produces measurable benefits

for all participants in ways that reduce risk while increasing the certainty of success, resilience, and viability.

"There are many moving parts in a successful local food value chain," Bute explained. "Consumer demand and supply chain responses are essential factors in our model, and Food21 serves as the link between all value chain participants."

The first project launched out of the Value Center was Farm to Tap. In less than 18 months, a fully functioning local food value chain was developed that grew, processed and turned locally produced barley and malt into micro-brewed beer.

"Since we first released our 2018 report, *Building a Resilient and Sustainable Food Economy*," said Bute, "we have sought to improve the financial sustainability of our region's family farms. The Farm to Tap initiative was launched in Westmoreland County to demonstrate the power of connecting local farms' productive capacity to one of the fastest growing industries in our region -- craft brewing. This is mutually beneficial to all links in the regional craft beer value chain."

And by the summer of 2021, local micro-breweries were producing "cold ones" for an appreciative market and every stakeholder in the value chain, including farmers, benefited!

The Farm to Tap Pilot

Food21's Malt Barley Pilot Project (Farm to Tap) grew out of a meeting with Dan Conway, cofounder of Great Lakes Brewing in Cleveland. When asked about using locally sourced ingredients in his beer, Mr. Conway joked that the only thing "local" about Great Lakes Beer was the water, citing the scarcity of locally produced hops and malt. Dan stated that if he had to choose between those two ingredients, he would choose locally produced malt.

Food21 doesn't look to "push" a solution, but rather to get the market to demand it. So, its next step was to visit seven local craft brewers and contact an additional eight brewers to gauge interest in locally sourced hops and malt. This informal survey of local craft breweries revealed interest in both ingredients; however, a majority (12) preferred barley. This informed Food21's decision to pursue locally grown

barley and revealed the existence of a "pull through" demand. In marketing parlance, "pull through" indicates that the consumer of a particular product is seeking more of it; in this case, local brewers are seeking local malt.

Food21 then went about gauging the viability of growing malt barley in southwestern Pennsylvania. Exchanges with Penn State University and Ohio State University Agriculture

Extension employees, as well as five area farmers, suggested that barley would be less complicated than hops, a trellising plant, to incorporate into existing regional growing regimens (primarily grain).

Vince Mangini, Food21 Value Center Manager, concluded that there was an opportunity to support both farmers and brewers in the region by supporting the creation of a malt barley value chain, and initiated an examination of the barley/malt/craft beer value chain to determine how this could best be accomplished.

It starts with seed

The Food21 pilot project got off to an inauspicious start. Procuring commodity crop seed (that is, seed for corn, soybean, oats and wheat) is relatively easy. Buying barley for malting purposes is not, and not all barley is malting-quality barley, which requires larger, plumper grains. Informal discussions with experienced malt barley growers should have been a harbinger for our impending difficulties. These farmers advised us that malt barley seed orders should be placed many months in advance.



“After placing an order roughly three months before the planting season, the seed company called to inform us that the variety we chose could not be guaranteed to germinate, as the company’s tests resulted in less than a 95% germination rate,” explained Mangini. “We called another seed company and were able to purchase 1,900 pounds of Odyssey Barley Seed.”

On to cultivation

It did not take much effort to find two farmers willing to plant malt barley for Food21’s Farm to Tap Project, since Mangini had personal relationships with several of his fellow farmers in Westmoreland County, Pennsylvania.

Because the Food21 team was eager to get started as soon as possible, the Farm to Tap pilot comprised two 25-acre test plots of spring barley planted in March and April of 2020. Food21 used the certified Odyssey Barley Seed it had purchased and tasked these two farms with growing the barley.

The first farmer was Fred Slezak, a certified crop advisor and the owner of Lone Maple Ag Services. “We had grown barley in the past,” Slezak explained. “One advantage in planting barley is that its season rotates well with soybeans. It promotes soil health in no-till farming by increasing the organic matter in the soil. It’s not used a lot, but what I like about it is that it is a great cover crop, retains the soil and has a monetary value.”

Slezak’s family has been farming for over 100 years, and he manages over 2,000 acres of cropland. The second farm participating in the pilot was Heinnickel Farms. The Heinnickel family farm primarily is a beef farm; they raise commodity crops such as corn, soybeans, and oats, as well. Their total operation also covers roughly 2,000 acres.

“Barley is great for crop rotation. The government is really after us about that,” Heinnickel agreed. “Another

advantage is that we can plant barley as a cover crop and it’s also a cash crop.”

The two farmers agreed to oversee the entire process from seedbed preparation through harvesting. As part of Food21’s agreement with the two farms, they could also sell the straw to help recoup some of their costs.

The results of the cultivation were mixed. Weather played a significant role in harvest amounts. Though the two planting sites were less than five miles apart, rainfall timing and amounts differed greatly.

The Lone Maple site never quite got enough rain and underperformed expectations, delivering about 18 bushels of barley per acre with a crop that averaged 20 inches in height. (Experienced spring barley farmers told Food21 that 40 bushels per acre would be a good crop.) The barley from this site was used for animal feed.

Keeping in mind the below-average rainfall, the Heinnickel plot fared better. This crop was obviously more robust and healthier in appearance.



Fred Slezak planting his fall barley crop at Lone Maple Farm.

Photo courtesy of Food21

These observations proved to be prescient as the average per bushel yield came in at 38 and met all malt barley testing specifications. “Not a world record,” said Mangini, “but satisfactory nonetheless.”

The malting process

Barley must be processed to become malt, undergoing a series of enzyme-creating steps involving steeping, sprouting, drying and sometimes roasting. The businesses charged with this task are called malt houses. The only malt house in southwestern Pennsylvania is CNC Malting Company in Fenelton, just outside of Butler, Pennsylvania. The owners of the facility, Brenden and Oana Carroll, were very accommodating, providing extensive background information and direction.

“Malt is the soul of beer,” Brendan said. “There is a unique flavor that comes with it. Hops is like the spice, but malt is the flavor base.” Brendan had considered opening a brewery himself and found that Pennsylvania malt simply didn’t exist, so he opened



A sampling of malts from CNC Malt in Fenelton, PA.

Photo courtesy of Food21

CNC malt to fill that niche. He stressed the importance of personal contact with growers and brewers. “It’s all relationships,” he said. “Deals we are making now have been years in the making.”

“We were in constant contact,” added Mangini, “and when it was time to transport our barley, they were waiting for the delivery.”

Craft brewery partners

Before embarking on the pilot, Food21 had productive discussions with 16 prospective end users: Great Lakes Brewing, Straub Beer, All Saints Brewing, North Country Brewing, Four Seasons Brewing, Devout Brewing, Helltown Brewing, Southern Tier Brewing, Penn Brewery, Yellow Bridge Brewing, Four Points Brewing, Mindful Brewing, Troegs Brewery, Stoney’s Beer, White Valley Distillery and City Brewery in Latrobe. All were receptive with varying degrees of interest to consider the use of local malt. As Farm to Tap progressed, ten breweries either committed to purchasing malt or entertained experimenting with a batch of local malt.

On April 17, 2021, All Saints Brewing introduced Old Hanna’s Town Ale, produced through the Farm to Tap endeavor. Says Jeff Guidos, Founder and Brewer at All Saints, “Our motto is ‘fresh, pure and local,’ and we take pride in making local craft beers. But some of the components we use to make our beers here in Greensburg are not locally sourced.” Guidos typically relies on German and other European companies for his malt.

“Through Farm to Tap, we formed local partnerships to develop Old Hanna’s Town Ale. In fact, the farm where much of the barley was grown is next to our brewery and CNC Malting Company, our malting partner, is about an hour from here. It doesn’t get any more local than that!”

Later in April, Monday’s Brewing Company in Peters Township, PA, and Recon Brewing in Butler offered their customers Bradford’s Reserve and PA Pride, respectively,

both produced through the Farm to Tap project.

In another local twist, All Saints also produced “St. Bart’s Festiv-ale” in July 2021, to be served at the century-old Our Lady of Mount Carmel Festival, hosted by St. Bartholomew church in Crabtree, PA. Crabtree is just a stone’s throw away from both All Saints Brewing and Heinnickel Farms.

“I drank some of the beer and it was pretty darn good,” declared Heinnickel, a parish member. “People were very receptive to it. The grain came from us, and it was locally processed and brewed.”

“We ended up selling out,” Mangini recalled, “six kegs in two nights.”

It should be noted that even though the bigger breweries (Great Lakes, Troegs, and City Brewery) did not participate in the Farm to Tap project initially, they seem to have a genuine interest in locally raised malt. Overall, the local craft brewers were very receptive to the possibility of incorporating local grains into their brewing recipes.

Lessons learned

From a practical point of view, the 2020 growing season for Food21’s Farm to Tap project was an ideal learning environment. “We experienced growing both acceptable and unacceptable malting barley,” said Mangini. “The barley that did not meet malt house standards led us to find alternative uses for it.”

“Weather plays an important role,” added Fred Slezak. “Barley is very weather-dependent.” In fact, wet weather is the primary factor that leads to excessive disease and potential pre-harvest sprout, which damages the grain, hindering germination and proper malting.

“It’s tricky,” explained Mangini. “If barley starts to sprout you need to stop it. Also, barley can grow a fungus –



The first cold beers from the Farm to Tap pilot were enjoyed in April of 2021.

Photo courtesy of Food21





Pictured from left to right at the Farm to Tap kick-off: Rick Terrien, Food21 Venture Center Manager; Joe Bute, Food21 President; Brendan Carroll, CNC Malt Co-founder; Vince Mangini, Food21 Value Center Manager; Alquin Heinnickel, Heinnickel Farms Owner; Jeff Guidos, All Saints Brewing Founder and Brewer. Photo courtesy of Food21

vomitoxin – that passes through during the malting process and can actually cause sickness when the beer is consumed. We added two sprays of fungicide to prevent this.”

“The fungicide is crucial in our region,” Slezak agreed. “It’s a costly application, but it adds to the value of the crop if applied at the proper time. If you’re going to grow malting barley, you have to go for broke.”

“Farmers are in a tight market, so everything is about cost,” Alquin Heinnickel concurred. “The cost of growing malting barley is a lot more because you have to complete some extra steps that aren’t needed for feed grade barley. Fungicide needs to be sprayed twice, and that costs almost \$100 per acre over the two applications. You have to be very careful with it, because malters may not want the product if it hasn’t been sprayed. It must meet the malter’s specs. The fungicide may increase the crop yield only a little bit, but I do think you get a nicer, plumper grain out of it.”

Although the weather is out of the farmers’ control, possessing some built-in insurance is something for which one can plan. Having the ability to feed or sell grain for

livestock is one way to make sure the crop will be used. This is why malting barley production may appeal more to farms that also have livestock enterprises.

“For us, because we are raising cattle, it can go into our feed lot if it doesn’t sell,” Heinnickel went on. “Barley has about 80% of the feed value of corn, so we feed it in the summer.”

Unfortunately, the animal feed is also the market that pays the least. Luckily, Fred Slezak is an experienced grain dealer. He was able to quickly find a buyer for the crop that did not meet malting house standards. “We were fortunate that the commodity grain prices were increasing over this period,” said Mangini, “which helped to recoup some of our expenses.”

The bottom line

“Farming is nerve wracking,” stated Mangini. “Our goal all along has been to make sure that everyone is making money in every step of the value chain, including the farmer. Crop yield minus expenses is how we figured the profits.”

Food21 averaged the costs from both 25-acre plots to get a per-acre cultivation and harvest cost of \$358.36. According to the experience of consulting commodity growers, expectations under normal circumstances would be a yield of 80 bushel per acre for winter barley. “We cannot get that kind of yield out of spring barley,” Heinnickel explained. “Fall barley yields better.”

As illustrated in the chart below, the simple math for a 25-acre plot would be based on an average yield per acre of 80 bushels. Multiplied by 25 acres at \$7.00 per bushel, \$14,000 in income could be expected, with an additional estimated straw income of \$3,000. At an average cost per acre of \$358.36, 25 acres would cost \$8,959, yielding a potential winter barley profit of \$8,041.

“Will we all be growing barley and wealthy? No,” said Slezak. “But it helps to have an additional market and there’s insurance in having a diversity of crops. I always say, there’s money to be made in agriculture if you’re willing to work your butt off.”

	ST. VINCENT/SLEZAK 2020 SPRING BARLEY	CARBONE/HEINNICKEL 2020 SPRING BARLEY	ESTIMATED 25 ACRE FARM 2020 WINTER HARVEST
Yield (Bushel per Acre)	18	34.8	80
Income per Bushel	\$4.65	\$7.00	\$7.00
Breakeven price per Bushel	\$21.00	\$8.10	\$4.47
Breakeven Yield (Bushel per Acre)	\$83.00	\$48.00	\$51.00
Total Sales (Barley & Straw)	\$2,093.00	\$8,490.00	\$17,000
Total Expenses	\$(6,885.00)	\$(6,058.00)	\$(8,959.00)
Net Income/(Loss)	\$(4,793.00)	\$2,432.00	\$8,041.00

GROWING WINTER BARLEY IS MORE PROFITABLE THAN SPRING BARLEY

On to next steps

The Food21 pilot was judged a success. The launch of Old Hanna’s Town Ale at All Saints Brewing was a welcome social event following pandemic seclusion and garnered some positive local press coverage. Also, the beer was delicious! But was this enough to expand the value chain to include additional farmers and brewers? In fact, could a Pennsylvania-grown malted barley become a sought-after commodity under a brand name, taking the idea to the next level?

Harking back to the “pull through” marketing concept, Food21 commissioned a more extensive, professionally-conducted survey of 100 regional craft brewers and distillers to analyze their malt purchasing behaviors.

Overall, brewers had high interest in unique specialty malts. 22% were already purchasing some local malt

and more than half had established relationships with local malt houses. Nearly 60% actively purchased local malt simply because it was local. Some of the influencing factors they listed included a reduction of carbon footprint, an opportunity to support local growers and overall consistency in product.

“Consistency and quality of ingredients were of the utmost importance to those surveyed,” said Megan Seastedt, Brewer/Owner and Food21 Consultant, who designed and conducted the survey. “I also found that brewers really valued the relationships they had with suppliers. Relationships build trust and create a connection between the final product and the ingredients that go into it. As a brewer, being able to turn to a supplier to ask a question and trust that they will have an answer, or at least be able guide you toward an answer, is paramount. Sustainability was

mentioned heavily, also. Interestingly, the closer the brewer was to a rural area, the more important that was.”

Considering the apparent demand and the scarcity of local malt, Food21 concluded that having more of it in the marketplace could provide a solid opportunity for all parties in the value chain. “The research confirmed what we thought,” said Mangini. “Craft brewers continued to express interest in local malt.”

Timing is everything

In a fortunate coincidence, in October of 2022, Pennsylvania Governor Tom Wolf announced the award of \$1.78 million in state grants to promote the development of Pennsylvania’s beer and wine industries. Food21 was a recipient of funds to support the launch of Allegheny Mountain Malt: *Food21’s Farm to Tap program seeks to increase the use of Pennsylvania-grown barley*

In search of local grains

By Mark Meyer,
Co-Founder, Wigle Whiskey, Pittsburgh, PA

We decided that Wigle would use local, organic grains as much as possible in its distilling process. We initially attempted to use a Pennsylvania grain broker, but we found this broker to be unreliable. We decided we needed to build relationships directly with local and regional farmers who then could realize the additional value by not having to pay a broker for its services.

Our universe of farmers was limited since we were using only organic grains. In addition, we were looking for rye which was not grown as a cash crop by many farmers. Wheat and corn were more readily available. We found farmers by calling organic certification organizations, milling operators and others. Once we connected with some farmers, they would give us leads on other farmers who might be interested.

We found two farmers who were growing rye as a cover crop and were willing to plant different varieties for us. A constant problem was determining the amount of grain that we needed. We had to make our best estimates, and the farmers had to trust that we would buy the grain that they would grow. We never once signed a contract with a farmer. All of our arrangements were informal agreements based upon mutual trust. We were fortunate to find one farmer who had a somewhat larger farm,

and he was able to help us out when our needs exceeded our estimates.

There were two farmers who were thinking of restarting their family farms and reached out to us to see if we would be willing to buy their grains. Once we committed to purchasing, they made the huge leap to jump back into farming.

All of the farms we worked with were small, family-owned farms. One of our continual challenges was to try to estimate our needs and match that with the farms’ expected yields. We needed to have multiple sources for our grains because sometimes a farm’s crop would fail due to weather or other reasons. Initially, arranging shipment of grain from the small farms proved to be challenging.

Wigle Whiskey, located in Pittsburgh’s iconic strip district, produces inventive, high-quality fermented and distilled products. The company is a strong believer in investing in its communities to support the agricultural, social and economic systems of which it is a part. It devotes significant resources to innovation and makes each of its dozens of regionally inspired spirits from scratch with organic ingredients. The company’s co-founder, Meredith Meyer Grelli, now an assistant professor of entrepreneurship at Carnegie Mellon University, also served as a founding member of the Food21 board of directors. Wigle spent approximately \$240,000 on grain in 2022.





The fall 2022 barley crop peeks through the first snow.

Photo courtesy of Food21

in the state's craft beer industry by demonstrating the value to growers, processors and brewers. Food21 will also establish Allegheny Mountain Malt, a new line of locally raised and sustainably grown malt.

The goals of the grant for 2023 were clearly stated in the Food21 proposal:

- Triple grower participation
- Double total acres cultivated
- Double total yield produced
- Double total beer produced from locally sourced barley
- Secure commitments from larger brewers
- Expand geographic reach



As of this writing, Food21 is well on the way to achieving the goals. "Things are proceeding well," said Mangini. "We planted in the fall of 2022, so we have 100 acres of

barley in the ground at six different farms. We expect to harvest in May or June of 2023. Fingers crossed... we are expecting to yield 80 bushels per acre, so a total of 8,000 bushels. Our partnership with CNC Malt will continue, and we should produce around 360,000 pounds of Allegheny Mountain Malt from this harvest!"

Food21 is finalizing an agreement to provide exclusive purchasing access to Allegheny Mountain Malt with a regional flour distributor, Zilka & Co. of Belle Vernon and Allentown, PA. Zilka already carries malt and is excited about the prospect of a local offering. The company has hired a dedicated salesperson to call on breweries, who started his job in March 2023.

"A large distributor like Zilka will help us spread the word," said Mangini. "As far as relationships with larger brewers," he continued, "I've been talking to Helltown, Iron City, and Giant Eagle." Giant Eagle, Inc., has expressed interest in producing four seasonal beers with local malt for its Market District stores.

"At Giant Eagle, we have a unique passion for supporting local producers and purveyors as we work together to enrich the communities we collectively serve," said Roy

King, Giant Eagle's Senior Category Merchant for Beer. "We're thrilled to collaborate with strong Pennsylvania partner organizations like Food21 and Pittsburgh Brewing Company to create a truly hometown beer, one brewed by a local brewery using locally sourced barley and made available at your local supermarket. We look forward to highlighting our region in a meaningful and enjoyable way as we share this hometown beer with our guests."

Food21 farm programs

Food21 is justifiably proud of what the Farm to Tap pilot program accomplished. "With a team of experts – from agronomy and agriculture to malting and marketing to the vibrant craft brewing community," said Mangini, "this project demonstrated what others have talked about but have not done. We are leveraging our region's assets, both human and economic, in sustainable ways. This demonstrates the power of the value chain concept."

Together with Food21 board member Rita Resick of Laurel Valley Farms in Somerset, PA, former board member Greg Phillips of the Westmoreland Conservation District

and senior board advisor David Sanchez of the University of Pittsburgh, the Food21 Value Center team is underway with two additional value chain efforts.

The Farm to Energy project has formed partnerships with 18 dairy farmers across three Pennsylvania counties to provide manure for centralized anaerobic digestion, capturing the methane and selling it back to a local gas company. Agriculture is the second-highest industrial producer of methane, equating to 14.5% of global greenhouse gas emissions. Not only does Farm to Energy have an environmental impact, but farmers in the project can expect to eventually share nearly \$1 million in annual profits from the venture.

In Farm to Fork, Food21 has signed a memo of understanding with Keystone Farm Future of Lancaster, PA, to establish a partnership expanding opportunities for farmers to transition to producing beef. As this value chain grows, Pennsylvania agriculture will claim a greater share in the local beef market, while strengthening family farms. "The most secure place in business is to control your supply

chain. Our Keystone Farm Future model allows supermarkets to have surety of supply and clear line-of-sight across their supply chain, while giving consumers a locally grown, high-quality beef product," said Larisa Miller, CEO of Keystone Farm Future.

"After the last two years of supply chain disruptions, we believe that building a resilient means of bringing local and regional food to market is essential," added Food21 President Joe Bute. "We believe that partnerships like this are key to the mission of the Food21 Value Center, rounding out our triad of farm projects to include value chains serving growers, dairy farmers and beef producers."

Additional information on these projects can be found under the Value Center tab at www.food21.org, as well as further information on value chains and services provided by Food21 around feasibility planning, market analysis, stakeholder assessment, business planning, financing and implementation of value chain projects. Or, email Vince Mangini at vince@food21.org.



As everyone knows, farmers love hats!

Photo courtesy of Food21

ABOUT FOOD21

Founded in 2018, Food21 of Pennsylvania is a 501(c)(3) located in Pittsburgh, PA. Through market driven solutions and strategies, Food21 serves as a catalyst for the expansion of the regional food and agricultural economy in the Western Atlantic Food Shed. Its mission includes promoting economic development, environmental and financial sustainability, health and well-being and broad-based partnerships. Food21 serves as a platform for social impact innovation across the food system and demonstrates fresh solutions to long-standing problems. For more information visit www.food21.org.

