



THE

MICHIGAN SUGAR COMPANY / WINTER 2022 / VOLUME 35 • ISSUE 2

# NEWSBEET

## How We Move Sugarbeets



### ALSO IN THIS ISSUE:

*2021: A Unique Growing Season*

*The Quest to Reduce Storage Loss*

*Research on Display at Annual Breeder's Tour*



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# Contents

## Corporate

- 5** Root of the Business
- 7** Ag View
- 8** Capitol Beet
- 11** Meet the New BSDF Executive V.P.

## Agronomy

- 20** 2021 Breeder's Tour
- 22** Reducing Storage Loss
- 24** 2021: A Unique Growing Season
- 28** Sugarbeet Lime Effects



## Youth Programs

- 50** Ally Kemp Crowned Michigan Sugar Queen
- 52** Student Scholarship Recipients
- 54** Youth Sugarbeet Project

## Community

- 56** Community Corner: Art Meets Agriculture



**12**



## Cover Story

- 12** How We Move Sugarbeets



## The Inside Story

- 34** Factory Updates
- 38** Grower Spotlight: Laracha Farms
- 44** Employee Service Awards and 2021 Ernest Flegenheimer Award
- 48** Our Sweet History: Meet Erwin Schave

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## BEING NIMBLE IS THE KEY TO LONG-TERM SUCCESS

*By Mark Flegenheimer, President and CEO*

I recently read an article that asked the question: Is it “survival of the fittest” or “survival of the nimblest?” Stated another way: to be the fittest, do we have to quickly adapt and change, or can we just keep doing the same thing, the same way, forever? Companies that are nimble are generally more creative and work collaboratively. They also have a long-term advantage over competitors who are not willing to change.

Operating in an extremely tight labor market has required our grower-owners and the cooperative to be very nimble. The current economy has required everyone to look at what is the most efficient way to operate. On the farm, more and more growers are field-piling beets and utilizing self-propelled harvesters to minimize the number of people needed to harvest the crop. This equipment allows them to get the beets out of the ground more quickly and during adverse weather. These different ways of operating were unheard of just a few years ago. As growers adapt and adjust, it will be critically important that, as a cooperative, we collaborate to become as efficient as possible.

Our factories have also had to be nimble and modify how employees are scheduled to work and what jobs get staffed. One example involves pressed pulp sales. With a robust dairy industry in our region, and due to the strong demand for pressed pulp, we have been able to turn off our pulp dryers and pellet mills at certain times. This allows us to redeploy the employees who normally run that equipment to oversee other stations in the factories. Moving forward, we must continue to examine opportunities to utilize our employees most effectively.

*“Companies that are nimble are generally more creative and work collaboratively. They also have a long-term advantage over competitors who are not willing to change.”*

The extremely tight labor market is not likely to subside soon and that will require Michigan Sugar Company and its grower-owners to become even more nimble. History has shown us that our producers are some of the most agile in the industry. From adopting new seed varieties and spray programs to utilizing self-propelled harvesters, our growers have proven they are willing to change at a rapid pace. I am always amazed as I watch our growers try new, inventive agronomy practices or pieces of equipment and see their incredible results.

To survive another 100 years, we must be nimble and willing to try new and different things. Change is often uncomfortable and change at a rapid pace is even more difficult. I have watched this company and its growers adapt, adjust, and change for many years and I am confident we will continue to be nimble for many years to come. ■



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## THROUGH PREPARATION AND FAITH, WE ARE EQUIPPED TO HANDLE WHAT COMES OUR WAY

By James Ruhlman, Executive Vice President

Whether you are a farmer or an employee in agribusiness, you understand the value of preparation, readiness, and risk management when co-existing with the extreme forces of nature.

During planning for an upcoming year, careful thought takes place to maximize resources for optimal returns, while at the same time, much consideration is given to minimizing the potential for loss. During preparation season we focus on managing what we can control and place the rest in Mother Nature's hands.

When planning for a future, many times it's best to first identify the foundational pieces on which you can firmly stand. In other words, what elements of your business are fundamentally sound and solid? Perhaps it's your location. Maybe it's tradition or reputation. It could be your balance sheet. Perhaps it's your workforce. Maybe it's your intellect. Whatever it is, it's important to recognize your strengths as you look ahead.

Secondly, if your foundation needs to be shored up, it is probably a good idea to take care of that before considering anything else.

When preparing for a "next season," human capital, financing, repairs, capital expenditures, and growth opportunity are all considered. While one tries to take emotion out of a decision, research tells us that is not humanly possible. There is always an emotion tied to a decision, we just need to pay attention to it and take a second look at our direction before we act on our future. Next year might be a year when you need to get back to the basics of blocking and tackling, it might be a year when you need more human capital, it might be a year when you need to pool resources with another farm or business, or in might be a year of extreme growth if the foundational pieces are in place.

Many times, we peek at what our peers are doing to find success. It's a good practice to learn what works for others and what doesn't. Sometimes we can apply a learned practice or a piece of technology on our own operation that makes us better and stronger; yet what works for one may not work for another and sometimes that's hard to see.

For me, time is the most precious resource to consider when planning. You cannot be fully ready if you don't put extreme value on time. In cases where my teams were tired, and unprepared, it was because we didn't manage time. We weren't laser focused. We took on too much; or we let distractions pull us away from our mission. Time is often the most overlooked resource we have. We always think we have enough ... until we don't.

*Time is often the most overlooked resource we have. We always think we have enough ... until we don't.*

When looking at the future, it can get confusing and sometimes you need help with a decision. There are times when you need sage advice from someone who's been through it before. Often, we need fresh ideas from someone to get us out of our comfort zone. Sometimes the obvious isn't so obvious until you look up, instead of down. Sometimes we just want to figure it out on our own; but sometimes we can't. Sometimes we just need to put our pride to the side and ask for help.

While preparedness and readiness can be the greatest factors in reducing risk, we all know that the forces of nature can, and will overcome our best intentions. During some years, it all works out. Other years it doesn't. Sometimes we don't get enough and sometimes we get more than we imagined.

I truly believe that through preparation and faith, we are equipped to handle what comes our way. The result may not be what we planned for, but it was what Mother Nature or a higher being intended. There are times when nature is telling us something or sending us a message that we don't fully understand at first; but at the end of the day, we need to believe that we get what we need even if it is not what we thought we wanted. ■





## POLITICAL LANDSCAPE CHANGING AS NEW DISTRICT LINES ARE DRAWN

*By John Boothroyd, Manager of Government Relations*

Once every 10 years, elected officials hold their collective breath as their fates are decided by something completely outside their control — redistricting. Redistricting is the process by which states redraw their state House, state Senate, and Congressional district lines to reflect changes in population. In Michigan, this process is being handled for the first time by an Independent Redistricting Commission. In December, the Commission approved new maps that will radically change the face of Michigan politics, including taking the state from having 14 Congressional districts to 13.

From the perspective of the sugar industry, the results of the new maps appear to be positive. Most of our supporters do not seem to have significant threats to their re-election prospects. There are, however, three areas we must watch carefully:

- Congressman Dan Kildee, a Democrat representing the 5th District and one of our strongest supporters, will run in the new 8th District and probably face his toughest re-election challenge. While his new district has a slight Democrat advantage, 2022 could bring with it a GOP election wave and should Kildee face a strong opponent, his re-election may not be a given.
- In the 13th District, encompassing much of the city of Detroit, incumbent Congresswoman Brenda Lawrence, a Democrat currently representing the 14th District, has opted to retire. Lawrence has been supportive of the sugar industry and with the Farm Bill only a few years away, we must do everything we can to ensure an equally supportive member takes her place.
- Two of our Democratic supporters, Andy Levin, who represents the 9th District, and Haley Stevens, who represents the 11th District, will be facing each other in a primary to represent the new 11th District that encompasses areas of metro Detroit currently represented by them both. That puts us in a lose-lose situation.

An added wrinkle to this uncertainty is pending litigation. Several current legislators have filed a lawsuit with the State Supreme Court arguing the new maps violate the Voting Rights Act (VRA) because they do not have any majority minority Congressional seats. Traditionally, the VRA has been interpreted to mandate Michigan have two such districts giving the lawsuit a real possibility of succeeding.

Only time will tell.

### **SOUTH EUCLID AVENUE RECONSTRUCTION**

At the start of the year, we decided to explore possible solutions to an issue that has been plaguing Michigan Sugar Company for years — the condition of the 1-mile stretch of South Euclid Avenue that runs in front of our Bay City factory.

This road, on which nearly all the traffic heading to and from the factory travels, has never been adequate to handle the more than 30,000 trucks that come and go every year. Particularly during harvest, the area suffers from traffic backups and an excess of mud built up on private property.

The decision to invest in expanding our desugarization capabilities in Bay City, a project that will further increase traffic, added to the urgency of finding a permanent solution.

Working with the Bay County Road Commission, we developed a reconstruction plan that includes widening lanes, adding turn lanes, curb and gutter installation, and the addition of a new pedestrian signal aimed at making it safer for our employees to cross the street as they enter and leave the factory grounds.

With a draft plan in place, the final hurdle revolved around funding. With the road commission unable to fully fund the plan, we turned to the state government. Fortunately, with the influx of federal dollars into the Michigan, there was a desire in Lansing to fund one-time infrastructure improvements to help facilitate economic development. After months of meetings with legislative leaders to explain its necessity, we were successful in getting \$2.5 million for the project in the 2022 budget. This money will cover nearly half of the project cost with the Bay County Road Commission and City of Bay City funding most of the balance. Michigan Sugar Company will cover costs associated with creating a new and safe crosswalk for employees. A huge thanks to Sen. Wayne Schmidt, R- Traverse City, for championing this project as Chairman of the Senate Appropriations Transportation Subcommittee.

With funding in place, we are in the process of working with the road commission to finalize the plan. Construction is set to begin in Spring 2022 with completion before the start of permanent pile. None of this would have been possible without Michigan Sugar Company's Political Action Committee. This is another example of how the money that our growers and employees contribute to the PAC is not a cost, but an investment in our company's future.

### **FARM BILL JUST AROUND THE CORNER**

Michigan Sugar Company also continues to be active and vigilant in Washington, D.C. While the next Farm Bill may feel like a long way off, it is just around the corner. Nothing made this clearer than the introduction of H.R. 4680, legislation ironically titled the "Fair Sugar Policy Act of 2021," that would effectively dismantle the Sugar Program.

This legislation again shows us our opponents remain active and determined to destroy the domestic sugar industry in favor of subsidized foreign production. Fortunately, we have not been idle in the face of our opponents' misleading and unfair attacks. Between educating new members and strengthening our relationships with current supporters, our advocacy has been constant, relentless, and, above all, effective.

So long as we continue to invest our time, expertise, and resources in protecting and improving the Sugar Program, I am confident that we will continue to find success on the federal level. ■



*John Boothroyd is Michigan Sugar Company's Manager of Government Relations. He joined the company in 2018 after working four years for U.S. Rep. John Moolenaar.*





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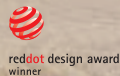
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# ROPA North America



# Building Strategies for the Future of Sugarbeets

## Meet Beet Sugar Development Foundation Executive Vice President Anna Murphy

On July 17, 1945, 14 companies banded together to form the Beet Sugar Development Foundation (BSDF), with the mission of advancing beet sugar production through research, education, and partnerships.

The organization was founded in the wake of World War II, which had caused labor shortages that had a significant impact for growers of sugarbeets — a labor-intensive crop. It also came on the heels of the late 1920s and early 1930s when diseases such as Curly Top in the West and Cercospora in the East were ravaging the sugarbeet crop.

As former BSDF secretary-treasurer James Fisher noted, "... individual companies were too small to overcome the obstacles encountered in the perpetuation of the industry."

Now in its 76th year, the BSDF continues its important work and

since January 2021, I have had the honor and privilege to serve as the organization's Executive Vice President. I want to give special thanks to Paul Pfenninger, former Vice President of Agriculture at Michigan Sugar Company, for his support during this transition. He officially retired on July 15, 2021, after serving as the Executive Vice President of the BSDF for five years.

You might wonder how a suburban gal like me ended up working with the sugarbeet industry. My grandfather was a farmer in South Dakota, but I did not grow up on a farm; I grew up in the suburbs of Denver.

My journey in the sugarbeet industry began during my days at Calvin College in Grand Rapids, Michigan. I was on the pre-med track and took a good, hard look at medical school but instead decided to attend grad-

uate school. I stumbled upon an opportunity to work as a graduate research assistant at Colorado State University, with a focus on wheat breeding and genetics. I had no idea if I would like this work, but I figured I'd at least be able to get a good tan during the summer.

On my first day of graduate school, I stepped into my first ever grower field, and I was hooked. Since graduate school, I have spent the better part of a decade as a sugarbeet seed breeder.

I am excited to be part of the efforts of the mission of the BSDF.

This past year, the BSDF has been formulating its first ever strategic plan. Over the next few years, the organization will focus on advancing beet sugar research through increased innovation and enhancing and growing BSDF's education and training programs. In addition, the BSDF will continue to strengthen its long-standing relationships with key partners, including the United States Department of Agriculture Agricultural Research Service, American Sugarbeet Growers Association, U.S. Beet Sugar Association, and the American Society of Sugar Beet Technologists.

Sugarbeets are a small crop, and it is important now more than ever to band together to continue to keep this industry healthy, vibrant, and profitable. ■



**BEET SUGAR  
DEVELOPMENT  
FOUNDATION**

## About Anna Murphy

Anna Murphy is a Colorado native and has been working in agriculture research for more than 10 years. She earned her bachelor's degree in biology from Calvin College in Grand Rapids, Michigan, and her master's degree in plant breeding and genetics from Colorado State University, where the goal of her research was to detect and introgress novel alleles for yield and drought tolerance from wild germplasm in wheat through an advanced, backcross quantitative trait loci — or QTL — strategy.

Since graduating in 2011, Murphy has worked in various sugarbeet-related roles. For eight years, she worked for Syngenta Seeds and Hillebrand Seed as a sugarbeet breeder. She developed a yield- and disease-focused hybrid breeding program for markets in the United States, utilizing marker-assisted breeding techniques to select for and improve *Aphanomyces* and *Fusarium* disease tolerance levels in sugarbeets.

Most recently, Murphy has taken on roles in both product evaluation and management for Hillebrand Seed and supply management at Magno Seed. She was named Executive Vice President of the Beet Sugar Development Foundation in January 2021.

In her free time, Murphy enjoys spending time outdoors or traveling to new or familiar places with her husband and three children. ■



**LEFT** On Aug. 5, 2021, the Beet Sugar Development Foundation held its "75+1" Celebration with its four most recent Executive Vice Presidents in attendance. They are, from left, Stephen Reynolds, Anna Murphy, Paul Pfenninger, and Tom Schwartz. Murphy took over as Executive Vice President in January 2021. Photo by Aimee Dokes, Beet Sugar Development Foundation



# How We Move Sugarbeets

**ABOVE** Sugarbeets are piled at Michigan Sugar Company's piling ground in Bay City. Photo by Rick Glaza.

**HARVEST TECHNIQUES, TRANSPORTATION AND DELIVERY SYSTEMS, AND STORAGE METHODS ARE KEY TO BRINGING THE CROP FROM THE FIELD TO THE FACTORY**

*By James Ruhlman, Executive Vice President*

**A**s the autumn winds bring in colder fall temperatures, skies of dawn turn to shades of deep purple and red. The harvest moon shines with radiant light after sunset and casts a glow on the landscape as far as one can see. The beauty of nature can be felt through the forces all around us, as trees of green turn to amber, orange, and scarlet. Mornings become brisk and our days get shorter. It's a time of year when our home-grown product — sugarbeets — store energy after six to seven months of growth in about 20 Michigan counties and Ontario, Canada. Reaping is reserved for the planters, and fall is the time of the year when our shareholders reap. It's the time of year when we harvest, and it also is the time of year when Michigan Sugar Company's supply chain begins.



The sugarbeet, referred to as the root of our business, is the core element of our supply chain. Grown locally, it serves the benefit of being readily available and close in proximity to Michigan Sugar Company's processing plants in Croswell, Caro, Bay City, and Sebawaing, Michigan. Sugarbeets are a precious and raw commodity that have "shown up" for our growers and our customers for more than 115 years. And, because our farms are near our factories, it also means we have a good story to tell when one speaks of sustainability.

The management of sugarbeet supply is a combination of harvest techniques, transportation systems, delivery systems, and storage methods. This campaign, Michigan Sugar Company's grower-owners delivered roughly 5.5 million tons of sugarbeets from hundreds of multi-generational, family farms. After more than a century of moving beets, one would think that we have found the perfect formula for our delivery system, but Mother Nature and

*continued on page 14*





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Photos by Reven Reitmeier and Melissa Shaw



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SEASON **2021**



**RIGHT** Dave Rupprecht of Zwerk & Sons Farms harvests sugarbeets using a Ropa harvester.

**BELOW** Bednarski Farms loads beets with a MAUS during harvest. *TALN Media photos.*



Father Time always remind us of the control we lack, and the faith we need to adapt to a crop that yields and ripens at a different time every year. Advancements in equipment and around-the-clock-delivery are staples in our delivery systems that help to keep us viable and competitive.

It all begins with the harvester, that pulls the deep-rooted crop from the ground. Cleaning beds in the body of the harvester knock off loose dirt before beets are elevated and placed in a field cart or truck. Many growers use traditional 6- to 12-row harvesters that are pulled behind a tractor, but modern self-propelled harvesters that top and pull beets all at once are becoming more popular. The combination of hardware and software in the new harvester allows for less manpower and more adaptability when harvesting in adverse conditions. When wet weather shows up, in many cases, so does the self-propelled harvester.



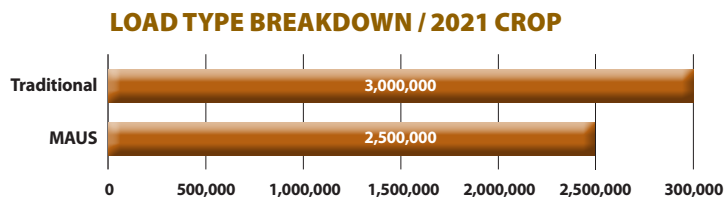
Made in Europe by manufacturers such as ROPA and Holmer, this piece of equipment comes bundled with enhanced cleaning capabilities and exceptional top and weed removal. It offers our cooperative tremendous flexibility during harvest.

The MAUS has been instrumental in more than one phase of Michigan Sugar Company's supply chain. It allows our cooperative to optimize piling equipment, and it allows growers to manage harvest with fewer trucks and reduced manpower. When a grower can harvest

all day, pile beets on a headland and then deliver through the night, turnaround times from a field to a piling site are reduced by as much as 50%. Larger farms hire commercial haulers to pick up and deliver beets for them, reducing both human and machinery capital.

#### FIGURE 1.

*Here is a look at how Michigan Sugar Company's 2021 sugarbeet crop was harvested. You can see 3.0 million tons were harvested using traditional methods, while 2.5 million tons were harvested using a MAUS.*



The movement of beets in Michigan and Canada is a hybrid system: utilizing just-in-time delivery practices that you might see in many parts of Europe, coupled with traditional hauling and piling practices that are customary for many other U.S. beet sugar cooperatives. Beets can temporarily be placed at the end of a field (called clamps) and transported later, they can be delivered directly to the factory for immediate processing, or they can be delivered and piled at one of Michigan Sugar Company's 15 receiving stations.

#### MOVING WITH THE MAUS

In 2002, Michigan Sugar Company's Canadian growers in Lambton, Ontario, began using a piece of equipment called a Field MAUS. After tremendous success there, the use of a MAUS in Michigan was adopted by Helena Farms in Harbor Beach in 2007. Its robust pickup system allows sugarbeets to be piled at the end of a field, and later placed in a truck for delivery to a piler, stacker, or to the mouth of the factory. More than 20 of these machines are used in Michigan Sugar Company's transportation and delivery systems today.

The MAUS also makes it feasible for smaller farms to form harvest groups, where each farm can place beets at the end of a field to be later picked up by a MAUS and a pool of farm trucks. As growers look to be more efficient, the MAUS serves them in many ways.

From a piling standpoint, Michigan Sugar Company aims to use its 75 pilers around the clock during harvest. The MAUS offers growers a more desirable option to deliver at night than in the past. They can schedule drivers and trucks at night and harvest during the day. The MAUS allows for better utilization of on-farm equipment, and it optimizes pilers owned by the cooperative through 24-hour delivery.

*continued on page 16*

## CASE STUDY NO. 1

### HARVEST GROUP OF THREE FARMS IS USING A MAUS TO REDUCE TRUCK TRAFFIC AND IMPACT TO FIELDS

By Cassie Sneller, Field Consultant

For three Huron County farms, something needed to change to address the challenges related to harvesting sugarbeets each fall: a shortage of truck drivers, mechanical breakdowns, and rising prices for maintenance of equipment just to name a few.

That's precisely why one group of Michigan Sugar Company grower-owners — from Richmond Brothers Farms of Bay Port, Schaper Farms of Pigeon, and Gro-Green Acres in Owendale — were inspired to create a harvest group and looked at using a MAUS to harvest sugarbeets.

Two years later, the three farming operations have reduced the number of trucks being used to transport sugarbeets from 23 to 10, and by using a MAUS to harvest beets, trucks are no longer going into the fields, reducing negative impact to the land, and reducing wear and tear — and maintenance costs — on farm equipment.

"Heck, any time you can get rid of a truck on the road, it's a good day," said Ken Richmond of Richmond Brothers Farms with a laugh.

Ken and Mike Richmond from Richmond Brothers Farms stressed the harvest group wouldn't be possible without Michigan Sugar Company taking care of things on its end, too.

"We might have wanted change, but they needed to accommodate us, too. They have to staff pilers, make sure they run, and keep our trucks moving," said Ken Richmond.

The digging operations at the three farms are similar because they each cover a relatively large geographic area and use multiple harvesters. By forming a harvest group, the farms now work together to ensure they always have enough beets on the ground ready to go.

Mud and rain also were huge factors in the previous harvest decisions on each farm. To some extent, they can now work around that as beets can be piled on the headlands ahead of a weather event. And, using a MAUS allows a more controlled, efficient, and predictable harvest schedule. Members of the harvest group said they believe they can now haul more sugarbeets during their 10 p.m. to 10 a.m. delivery slot than they previously could haul in 16 hours.

All agreed this was a massive, but much-needed step to ensuring a strong future in the sugarbeet business. All it took was a group of like-minded people who had an idea and made it happen. ■



**Cassie Sneller** is a Michigan Sugar Company Field Consultant working with growers in Michigan's Thumb region to maximize their crop potential. She has been with Michigan Sugar since 2014.

**BELOW** The Bednarski Farms' MAUS loads sugarbeets into a truck during harvest. *TALN Media photo.*



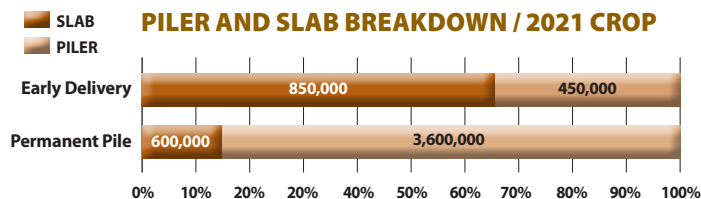




**ABOVE** Employees at Michigan Sugar Company's Meade piling ground celebrate the end of the 2021 harvest. *Photo by Rick Moreau.*

## FIGURE 2.

Here is a look at how Michigan Sugar Company's 2021 sugarbeet crop was delivered, both during the early delivery portion of harvest and the permanent pile portion of harvest. It is typical for early harvest beets to be delivered directly to the slabs at Michigan Sugar Company's factories in Bay City, Caro, Croswell, and Sebewaing.



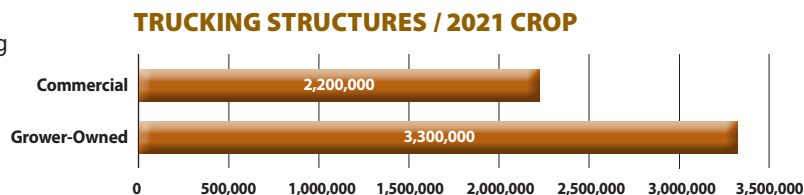
Of the sugarbeets harvested each year, 25% to 30% are delivered during a time we call early delivery season. During this time, beets are not piled for future processing, but rather harvested and processed within in a 48-hour time frame. In 2021, roughly 1.3 million tons of beets were delivered during early delivery, leaving about 4.2 million tons to be delivered between mid-October and mid-November, weather dependent. About 600,000 tons of those "permanent pile" beets were delivered to the mouth of the factory for immediate processing and the remaining 3.6 million tons were piled and will be stored and used during the campaign, which is expected to continue until mid-April.

Michigan Sugar Company's primary piling sites are adjacent to the four manufacturing facilities, but 11 additional piling sites take in beets during full harvest. Beets are delivered on trucks owned by local farmers and by commercial haulers. During peak harvest season, more than 350,000 tons can be delivered by more than 10,000 trucks in a 24-hour period.

Michigan Sugar Company partners with commercial trucking companies such as DHT, Grace Transport, Atwater Trucking, Buchholz Trucking, and Alexander and Sons to move large quantities of sugarbeets. Their willingness to adapt and be available for the beet industry is critically important to the cooperative's success. The company expects to see more commercial hauling in the future as family farms face labor shortages and high equipment costs. The scaling of larger equipment and sharing of resources can help keep growers competitive.

## FIGURE 3.

Here is a look at how Michigan Sugar Company's 2021 crop was delivered. You can see that 2.2 million tons were delivered by commercial trucking companies while 3.3 million tons were delivered by grower-owners.



In the state of Michigan, we are very fortunate to have truck weight limits that allow for heavier loads. It is not uncommon for 50-ton loads to be delivered on a single trailer. These trucks are sometimes loaded in the field, but many times are loaded on a state or county road. A MAUS can pick up beets from a field and convey them over a ditch into a truck trailer. Larger trucks have been instrumental to the efficiencies of harvest but have caused the cooperative to upgrade pilers and buy new pilers with longer booms and inclines to accommodate the size of the more modern truck.

## CASE STUDY NO. 2

# WHEN BRIDGES WENT OUT, USE OF A MAUS AND CREATIVE TRANSPORTATION STRATEGY SAVED SHAREHOLDERS AND CO-OP MONEY

By Riley Olsen, Agricultural Supply Chain Manager

In 2020, a slow-moving rain event in the Great Lakes Bay Region created historic flooding along the Tittabawassee River leading to multiple road closures and bridge outages.

For four Michigan Sugar Company farms that typically deliver sugarbeets to the Hope piling ground, conventional trucking routes were neither economical nor efficient. Thanks to a creative trucking plan and the use of a MAUS, the beets were harvested and delivered and both the shareholders and the cooperative saved money.

Three critical bridges were destroyed in the 2020 mid-May floods: the Curtis Road bridge and two bridges connecting M-30.

For residents surrounding the Edenville area, the bridge closures created headaches and additional travel time. For the four growers — James Badger, Gregory Leuenberger, Maxwell Seed Farms, and McKimmy Farms — the bridges were a lifeline for delivering sugarbeets from their fields north of the bridges to the Hope piling station south of the bridges. In mid-July, two months after the flooding occurred, plans were announced that the bridges would not be repaired before permanent pile would start.

Michigan Sugar Company officials met with the growers to discuss the available delivery options. It was clear that hauls that were 7-10 miles were now roughly 30 miles.

To effectively harvest and deliver the crop, a MAUS operation was implemented to harvest and deliver a dozen fields located north of the bridges and piling ground. Starting the first day of permanent pile, growers began digging the fields that were pinned around the three bridges. On Oct. 20, 2020, trucks from Dave Hausbeck Trucking (DHT) began working their way around weight restrictions and back roads to haul beets. In a total of five days, 13,737 tons were transported to the slab at Michigan Sugar Company's Bay City factory.

To accomplish the project, trucking rates were established identical to existing contracts that DHT and Michigan Sugar Company have in place. DHT quoted freight rates from each of the townships where the sugarbeets were located. Michigan Sugar Company rented the MAUS to service the growers. Like other MAUS and freight arrangements in the cooperative, growers were charged half of the freight rate based on township and \$1.25 per ton to MAUS.

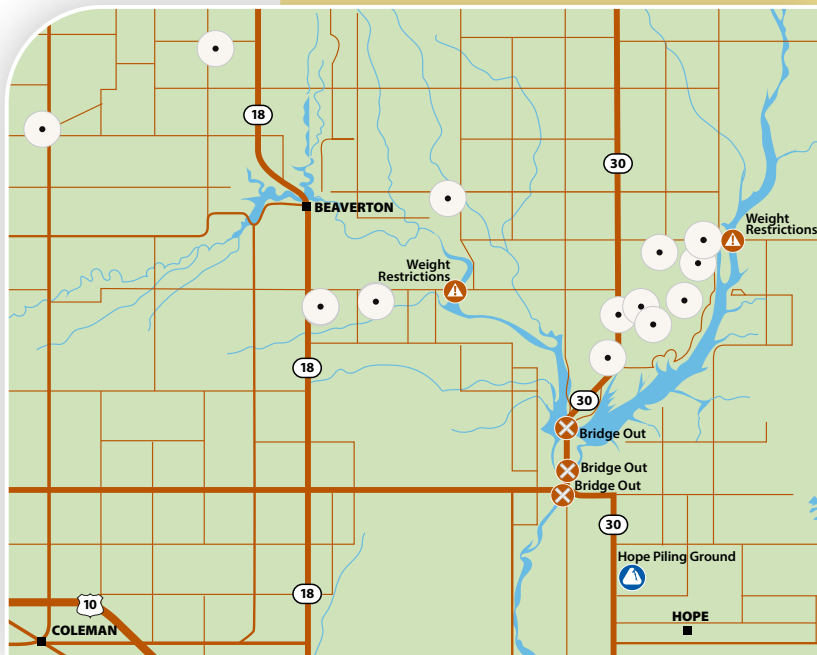
The MAUS operation not only solved the challenge of logistics with bridges being out of commission but represented an overall cost savings to the cooperative to deliver these tons.

## ON THE GROUNDS

When looking at Michigan Sugar Company's piling equipment, we find that the average piler currently on our grounds was built in the 1960s and 1970s. These machines stack beets from 18 to 30 feet high, and the technology advancements to these machines had taken a back seat in comparison to the enhancements of the loading and hauling capacities made in the field. Over the past several years, our shareholders have made significant investments in new pilers and our maintenance crews in the Agriculture Department have made significant enhancements to our older pilers. Longer booms, longer inclines, and enhanced control systems make them more suitable to handle the larger trucks that we see in the yard today. The Kringstad piler is a mainstay in our piling grounds; it efficiently and effectively places beets in piles for future processing.

The human capital required to move sugarbeets for the cooperative is extensive. Along with thousands of on-farm operators and truckdrivers, Michigan Sugar Company employs more than 800 seasonal employees to help with beet receiving.

On-farm help comes in the form of retirees driving trucks, farm kids  
*continued on page 18*



The estimated cost to deliver beets to the Hope piling ground, pile the beets and then transfer them to the factory later in the season is \$4.35 per ton for shareholders and \$3.85 per ton for the cooperative. To MAUS and deliver the beets directly to the factory, which was necessary because the bridges were out, cost approximately \$3.98 per ton for shareholders and \$2.98 per ton for the cooperative.

In total, an estimated \$17,000 was saved in the project.

And four farms that had never field piled a single sugarbeet quickly learned the ins and outs of MAUS beets. ■



**Riley Olsen** is Agricultural Supply Chain Manager at Michigan Sugar Company. His focus includes delivering an adequate beet supply to the four factories throughout campaign and improving the harvest and delivery process for growers. He has been with Michigan Sugar since 2018.





**ABOVE** Rollers on a MAUS pick up field-piled sugarbeets and remove dirt as the beets get transferred to a truck. *Photo by Tyler Rupprecht of Zwerk & Sons Farms.*

coming home from college to help out, grandparents chipping in to ensure the current and future generations of the farm are successful, and neighbors who work harvest as a second job. The hours are long, intense, and unpredictable; but farm families and surrounding communities in Michigan and Canada have an established work ethic that commits them to the job of harvesting a sugarbeet crop.

The cooperative, through a temporary staffing agency recruits approximately 600 local workers, but almost 200 come from out-of-state. Many of our locals return every year. It's in their blood. They know the routine and they know the value they bring to such a great cause. This year, more than 200 employees came to work at Michigan Sugar Company from Oregon, Florida, California, Maine, and everywhere in between. They came from all walks of life, at all ages, with diverse upbringings and backgrounds. They rented local hotel rooms and campsites where they hung their hat and put their head on a pillow after working 12-16 hours per day during a four-week stint. Michigan Sugar Company's receiving yards became a neutral piece of property where families met families and long-

term relationships, and friendships were made. It's a beautiful intangible of our harvest season.

The preparation for harvest from the company side comes from the skillful hands of our Ag Operations and Ag Communications group. They prepare all season for harvest. Their commitment to our shareholders can be easily seen by their readiness. When you have 15 pieces of property groomed, 75 pilers enhanced and maintained, and more than 800 employees trained to bring in 5.5 million tons of beets during unpredictable weather conditions, it says a lot about their planning and execution. They also manage the logistics and get beets where they need to be on time. They are all-in and care deeply about the success of the overall harvest experience for everyone involved.

From mid-October to mid-November, the beautiful autumn skies in Michigan and Canada turn to a silvery cold gray where the temperature can swing daily by at least 40 degrees. It can be 67 degrees when we start permanent harvest and 27 degrees when November hits. Harvest is a delicate exercise of moving beets at the right temperature in a compressed window. It takes

stamina, emotional intelligence, and a will to fight through adversity. Michigan Sugar Company's shareholders have what it takes to get through a harvest and so do the cooperative's employees.

As autumn turns to winter, we always look back at another year of harvest and how we moved beets. Sometimes the window for delivery was large and sometimes it seemed incredibly small. At times, it was too warm to deliver and then it got too cold. Sometimes we lacked manpower and at times we had temporary breakdowns.

The variables of harvest always bring uncertainty. But with uncertainty, we rely on strength, belief, and faith — three attributes that are woven into the fabric of our shareholders and employees; three attributes that allow our farmers to reap what they sowed. ■



**James Ruhlman** is Executive Vice President at Michigan Sugar Company. He is a graduate of Saginaw Valley State University and joined Michigan Sugar in 1983. He oversees the Agriculture and Information Technology departments, as well as Packaging and Warehousing.





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# Research on Display During 2021 Breeder's Tour

By Brian Groulx, Research Manager

## 40 PARTICIPANTS ATTENDED ANNUAL EVENT IN SEPTEMBER

Each year in early September, the Michigan Sugar Company Research Department and Michigan State University Sugarbeet Advancement collaborate to welcome plant breeders, seed and chemical company representatives, Michigan Sugar Company Seed Committee members, growers, and employees to an annual Breeder's Tour.

Attendees from all over the country and parts of Europe are treated to two days of research plot tours that include Michigan Sugar Company Official Variety Trials, Plant to Stand Trials, disease nurseries, and MSU Sugarbeet Advancement Variety Strip Trials. The tour ends with a Seed Committee meeting during which each seed company is given the opportunity to provide feedback on their observations of the trials, as well as any news or developments within their company.

Attendance was down slightly in 2021 due to travel restrictions related to the COVID-19 pandemic, but there still were more than 40 participants.

During the tour, plant breeders focus on each of their variety's performance

in the Michigan Sugar Company Official Variety Trials and Disease Nurseries. Plant breeders also rate each of the trials for uniformity, disease control, stand, and overall quality. For 2021, five seed companies submitted 52 varieties to the Michigan Sugar Company testing program. These 52 varieties were tested for yield and sugar content in the Official Variety Trials, and for disease tolerance in the various disease nursery trials. Of the 52 varieties, there were 25 first-year entries, six second-year entries, and 21 entries that have been in trials for at least three years.

In 2021, eight Official Variety Trials were planted. All eight trials were visited on the tour and were of high enough quality to harvest for root yield and sugar data. Harvest of the 2021 Official Variety Trials began on Sept. 20 and finished on Nov. 5. Root yields averaged an impressive

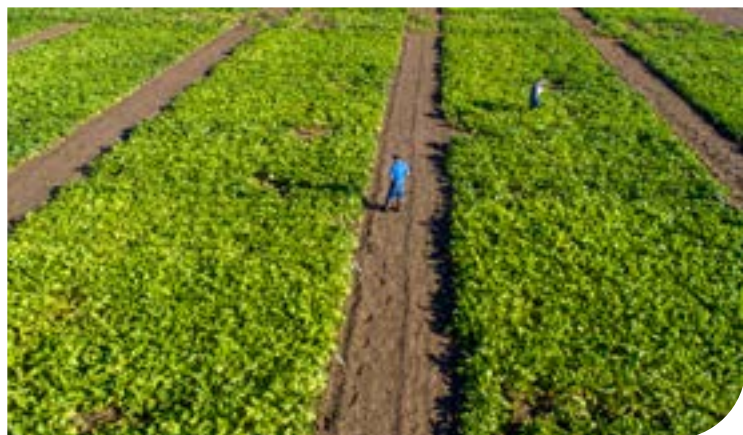


46 tons per acre and sugar content ranged between 16.5% and 17.5%.

Cercospora Disease Nurseries were inoculated in July and foliar ratings took place in August and September. These nurseries give Breeder's Tour attendees an opportunity to observe the genetic tolerance level for all varieties under the same environmental conditions. Cercospora nurseries do not receive any fungicide applications for the prevention of leafspot diseases. Two of the three Cercospora nurseries planted in 2021

were rated for disease levels with a third trial having inadequate stands and excessive wildlife damage that caused inconsistencies. The Cercospora nurseries are rated seven to 10 times throughout the progression of disease and those ratings are averaged to achieve the values used for variety approval.

The annual Breeder's Tour also provides an opportunity for the Michigan Sugar Company Research Department to showcase the variety side of its research that makes up about 50% of the total Research Department workload. Feedback received from the seed companies is used to continuously improve trials year after year. Data collected from these trials is compared to the Variety Approval Standards that determine if varieties will be allowed to move forward to commercial status. Data from these trials is used to educate growers, helping them to reduce risk, increase quality, and improve on-farm efficiencies. ■



### FAR LEFT/LEFT/ABOVE

Michigan Sugar Company grower-owners and employees, along with seed company representatives, review Michigan Sugar research plots during the 2021 Breeder's Tour. *TALN Media photos.*



**Brian Groulx** is Research Manager for Michigan Sugar Company. He joined the company in 2009 and is responsible for managing the Variety Program, as well as daily activities in the Research Department.



# Many Factors at Play in Quest to Reduce Storage Loss

By Corey Guza, Ph.D. Director of Research & Agronomy

## MICHIGAN SUGAR COMPANY CONTINUES TO EXPLORE NEW STRATEGIES

Sugarbeet storage research has long been a part of Michigan Sugar Company's history. Reducing storage loss creates significant opportunity for positive economic returns to the cooperative and its grower-owners. Longer sugarbeet slicing campaigns at Michigan Sugar Company's factories have proven to increase profitability by maximizing factory assets, but longer campaigns can increase risk of storage losses since the stored beets have longer exposure to weather. While Mother Nature plays an overriding factor in storage, there are opportunities to influence the storage process in many areas.

### SUGARBEET HANDLING

Sugarbeets are handled more like rocks than apples. Each time a sugarbeet is moved and dropped there is an opportunity to injure the root. When a root is injured, its natural response is to repair itself. It does this through a process called respiration.

Respiration is the process by which organisms convert sugar to carbon dioxide. Respiration is the opposite of photosynthesis — the process of converting carbon dioxide into sugar.

As one can imagine, if the goal of a sugar company is to keep as much sugar in a sugarbeet for as

long as possible, any activity that results in increased respiration and breakdown in sugar is something that needs to be examined. Once a sugarbeet is topped and lifted from the ground respiration will spike. This can be related to humans getting a fever when sick.

Sugarbeets will then begin the process of "cooling down" or lowering the respiration rate as they naturally heal themselves. The amount of the spike in respiration and the length of time it takes to "cool back down" depends on many factors. Some of the most significant factors that affect this "cool down" process in the root include the amount of damage, the amount of handling, the temperature of the environment in which the sugarbeets are stored, and variety.

### DAMAGE CONTROL

The amount of damage a sugarbeet receives also can be offset by the need to remove soil or how "clean" the root needs to be for storage and processing. The sugarbeet industry struggles with the need for clean, soil-and-top-free roots versus damage from excessive handling. Measuring the exact amount of storage loss from excessive soil and sugarbeet tops in sugarbeet piles is challenging.

One thing that is very clear, however, is that areas in sugarbeet piles that develop "hotspots" or problem areas first, generally have high amounts of excess soil or leaf material present. This is another reason why sugarbeets that have damage from leafspot are very problematic for long-term storage. Leafspot-damaged leaves are difficult to top and as a result can create areas in the pile in which soil and leaf material accumulate. The excess soil and leaf material creates the perfect opportunity for rotting to begin.

### ENVIRONMENT

The environment in which sugarbeets are stored may be the biggest factor impacting sugarbeet storage and the most challenging to influence. When beginning the process of long-term storage, we consider sugarbeet root temperature first and then the field environment as a close second. If sugarbeets are piled "too warm" that is the first opportunity for storage issues. Piling frozen beets is just as detrimental. If frozen beets thaw in a pile they will begin to rot immediately. Michigan Sugar Company management carefully weighs the risks of root temperature, field conditions, and weather forecast at harvest, when making decisions as to when to begin piling sugar-

**BELOW** Sugarbeets are piled inside Michigan Sugar Company's hoop building in Sebawaing. The structure stores about 70,000 tons of beets each year. *Photo by Rick Glaza.*



beets for long-term storage and whether to suspend or resume long-term piling activities.

Once sugarbeets are in piles, stable weather conditions are generally preferred versus spikes in temperatures. Ideal temperatures for storage range in degrees Fahrenheit from the mid-20s to 30 on the low end to low- to mid-30s on the high end. Freezing and thawing conditions can result in damage and rot to the outside rims of the pile and can trigger rot in areas of the pile where sugarbeets are compromised. Since weather conditions cannot be controlled, Michigan Sugar Company has invested and will continue to invest in equipment such as ventilation and storage buildings to reduce storage risk from environmental impact.

## VARIETY

Michigan Sugar Company has been conducting variety storage research for many years. There appears to be differences in how varieties store, but this difference can be influenced by many things, including root diseases and nematodes, which both can have a major impact on storage.

Michigan Sugar Company takes roots from its Official Variety Trials, weighs them and measures sugar content in the roots, and then places them into the storage room for 120 days. Roots are then removed, weighed again, and measured for sugar content along with invert sugars. Invert sugars need to be measured because they are breakdown products of sucrose. Glucose and fructose are two such sugars and are called invert sugars because they can change the angle of the specific rotation of plain polarized light in the opposite direction of sucrose. Since a polarimeter, which measures specific rotation of plain polarized light, is used to measure sucrose content, it is important to understand if invert sugars are present and if that is the reason the sugar content measures lower.

Variety storage data can be examined in multiple ways. One thing to look at is sugar content after storage. That is as simple as comparing the amount of recoverable white sugar per ton (RWST) varieties have at the time the roots are removed from storage. Another comparison is the amount of sugar lost or "gained" during storage. This is calculated by subtracting RWST at the time of removal from storage from the amount of RWST at harvest.

In the 2020-2021 storage season, sugarbeet varieties in the storage room appeared to gain sugar or RWST (Table 1). This was not the case. This "gain" is likely due to water loss or dehydration. Since the sugarbeet root is made up of 75% water, small losses in water can result in higher root-sugar concentration. This example highlights some of the challenges when conducting storage research. Despite the storage room being designed to maintain 99% relative humidity, winter weather conditions can impact the variety storage results.

## OTHER OPPORTUNITIES

We are continuously exploring storage strategies. Archive fungicide from Syngenta recently received a label that allows it to be applied to stored sugar-

**TABLE 1. OVT STORAGE TRIALS, 2020-2021**  
Average of three locations: Pigeon, Ruth, and Reese

Variety	RWST Storage Vs. Harvest <sup>a</sup>	RWST at Harvest	RWST After Storage	RWSA After Storage <sup>b</sup>	% Shrink <sup>c</sup>	Internal Rot Rating <sup>d</sup>	External Rot Rating <sup>d</sup>
C-G932NT	34.0	340.6	374.6	13,961.9	8.6	0.1	0.7
SX-2283	29.1	340.3	369.4	12,314.3	12.5	0.3	1.3
SX-RR1278N	28.3	334.4	362.7	12,994.6	12.9	0.3	1.2
HIL-9865	27.4	338.9	366.4	13,154.2	13.3	0.2	1.2
HIL-2332NT	25.4	346.2	371.7	12,396.7	13.6	0.2	1.0
SX-2297	25.0	349.6	374.6	12,849.3	10.3	0.2	0.9
BTS-188N	25.0	330.4	355.4	12,669.6	11.9	0.3	1.3
C-G752NT	23.0	333.0	356.0	12,741.4	12.5	0.2	1.2
C-G919	22.9	332.1	355.0	12,597.1	12.7	0.2	0.9
BTS-1606N	22.8	327.1	349.9	12,351.4	12.5	0.1	1.1
BTS-1941	21.9	319.2	341.1	12,670.3	11.8	0.3	1.5
HIL-2361	21.7	348.0	369.7	13,211.9	12.6	0.1	0.8
C-G943	20.4	320.5	340.8	12,460.9	11.5	0.3	1.2
BTS-1065	18.8	335.1	353.9	12,479.4	15.5	0.1	0.8
BTS-197N	17.6	339.4	356.9	12,540.4	12.0	0.3	1.4
HIL-9908	17.5	345.3	362.9	11,467.4	11.8	0.1	0.8
SX-RR1275N	17.4	341.8	359.2	12,155.8	14.5	0.3	1.2
HIL-2238NT	17.3	330.4	347.7	11,923.5	12.6	0.2	1.0
C-G049	17.0	336.1	353.1	12,749.0	13.6	0.2	0.9
C-G675	16.2	343.6	359.8	13,877.8	12.1	0.1	0.9
SX-2295	16.0	348.4	364.4	12,666.5	10.7	0.4	1.6
SX-2201	15.7	344.0	359.7	12,347.7	13.3	0.2	1.1
BTS-1703	14.8	343.0	357.9	12,662.2	11.8	0.1	1.2
MA-921NT	14.7	351.9	366.6	12,201.5	13.1	0.1	0.9
MA-814	13.8	339.6	353.4	12,344.8	13.1	0.3	1.2
C-G855	13.6	325.8	339.5	11,598.4	11.9	0.5	1.0
MA-813NT	13.6	337.7	351.3	10,896.1	12.0	0.1	1.2
SX-2296N	13.2	355.0	368.2	12,685.2	12.6	0.2	1.0
HIL-9879NT	11.5	348.0	359.5	11,375.5	12.3	0.3	1.0
MA-709	11.4	334.3	345.7	11,614.7	11.3	0.1	0.8
BTS-1399	10.1	331.6	341.7	12,800.7	11.7	0.1	1.1
SX-RR1264	9.8	337.8	347.5	12,206.9	12.2	0.2	1.0
HIL-2240	9.1	331.3	340.4	11,405.4	11.3	0.0	0.8
SX-2294	6.5	342.4	348.9	12,021.1	13.6	0.2	1.1
C-G021	1.6	346.2	347.8	12,319.8	12.1	0.1	1.1
AVERAGE		338.5	356.4	12,420.4	12.3	0.2	1.1
LSD 5%		11.2	16.4	1,244.5	3.7	0.3	0.5
CV %		2.0	2.8	6.2	18.4	78.1	26.5

<sup>a</sup> RWST Storage vs. Harvest = After Storage RWST – After Harvest RWST. Data is ranked by this value. Higher value = more sugar

<sup>b</sup> Storage RWSA = After Storage Tons Per Acre X Storage RWST

<sup>c</sup> % Shrink = Weight Loss in Storage

<sup>d</sup> Rot Ratings are on a scale of 0 to 10, 0 = no rot, 10 = very severe rot

<sup>e</sup> Sugarbeet roots were in storage for 120 days starting October 2020 through February 2021

beets. Michigan Sugar Company's research team is testing the effectiveness of the product this winter. Strategies of handling sugarbeets using a MAUS also are being explored. Verdesian Life Sciences, The Andersons, and UPL also have products they would like studied to see if there are benefits to storage. ■



**Corey Guza, Ph.D.**, is Director of Research and Agronomy at Michigan Sugar Company. He works with staff to identify research opportunities, evaluate data, and assist field consultants and growers with educational training and support.



Healthy and freeze-damaged sugarbeet seedlings.  
In Photo 1B, you can see how below-freezing temperatures can cause blackened cotyledons.

# 2021: Another Unique Growing Season

By Dennis Bischer, Director of Agronomy

## *Mother Nature once again played a significant role in the outcome*

The 2021 growing season once again presented Michigan Sugar Company and its grower-owners with unique challenges.

Planting got off to an early start in March with excellent soil conditions. Many of the March planted fields did experience a rain event that caused some crusting and poor emergence. In April, planting continued and was followed by very cold temperatures as the seedlings were emerging. Then came an unusually dry May and June. In late June, much needed moisture arrived, and rains continued through the remainder of the growing season. There were areas that once again received too much precipitation, especially in the West District — where some areas experienced extended periods of saturated soil — and in portions of Canada.

In July, as the digging of preharvest samples began, it became apparent the crop had tremendous yield potential as we saw significant yield gains between preharvest samples. Early delivery yields did not disappoint. Strong yields at the beginning of harvest led way to significant crop growth and high yields for the remainder of early delivery.

Crop growth continued into permanent pile and growth outpaced what company officials felt could be processed during

campaign. Thus, a decision was made to leave a percentage of the crop in the field. Also disappointing was the combination of warm weather and ample moisture late in the season that kept sugar content stagnant.

### APRIL FREEZE

The spring of 2021 was unusually dry in March and planting began early into good conditions. A significant rain occurred that left some fields with poor emerging conditions and some replanting was required.

Planting resumed in early April when field conditions improved, and these beets were emerging nicely. Then, on April 20 and 21, two nights with overnight low temperatures dipping to the low- to mid-20s, and in some cases colder (Figure 1), created uncertainty in stand establishment. The Michigan Sugar agronomy team knew that these low temperatures would likely cause some loss of stand, but they did not realize how patient they would need to be to fully evaluate the impact.

Typically, freeze injury can begin to be evaluated within one to two days. The injury symptoms from below-freezing temperatures are generally blackened cotyledons (Photos 1A & 1B) with damage that

may or may not affect the growing point. If the cotyledons are damaged by freezing temperatures, but the growing point remains healthy, the seedling will almost always recover with no long-term effects.

While typical freeze damage did occur this past year, injury not typically seen after cold weather events was observed as well. This season, the cotyledons and the growing point often remained healthy, but the hypocotyl became thin and threadlike (Photo 2).

The seedling had survived the initial affects of the cold temperatures, but it was unknown if the seedling would survive long term. This made determining



1A

**FIGURE 1.** Overnight low temperatures from Wednesday, April 21, 2021, to 8 a.m. Thursday, April 22, 2021.





whether replanting was necessary extremely difficult. In some cases the decision to replant was easy, but in most cases fields needed to be evaluated multiple times and patience was needed to determine what the final outcome would be. There were fields that had enough seedlings

with threadlike hypocotyls survive to prevent replanting, while there were also fields where the mortality rate was too high and replanting needed to occur.

In the end, this cold weather event did result in significant acres being replanted. Fortunately, replanting occurred early in the season and replanted fields had good yield potential.

### DRY MAY AND JUNE

May and June were unusually dry and much of Michigan Sugar Company's growing area went through an extended period without a significant rain event. During this time, the crop continued to look healthy, despite having much slower-than-normal growth.

Weed control also became difficult during this period. Post applied soil residual herbicides did not provide the level of control to which Michigan Sugar Company and its grower-owners are accustomed since they do require moisture after application to realize their maximum benefit. This resulted in more weeds escaping these applications.

The dry weather also reduced the efficacy of glyphosate applications. Weeds — lambsquarters, in particular — that would normally be controlled by an application of glyphosate were surviving and continuing to grow. This led to additional herbicide applications and adding additional surfactant to these applications to improve weed control.

### RAIN FINALLY ARRIVED

In late June, much needed rain finally arrived, and crop growth was rapid. During the extended period of dry weather earlier in the growing season, the 2021 crop had developed a strong,

**PHOTO 2**

Normal healthy seedling on the right and a freeze-damaged seedling with a threadlike hypocotyl on the left.



*continued on page 26*

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**PHOTO 4**

A field of sugarbeets with 30-inch rows reaching row closure at the end of June 2021.

deep, well-established root system that allowed it to fully utilize the rain received. Fields that had been growing slowly were now quickly reaching row closure (Photo 4).

## LEAFSPOT

The first fungicide applications for leafspot occurred during the last week of June. While receiving much-needed rainfall was fortunate, it also made fungicide applications for preventing leafspot difficult. Often, these fungicide applications were delayed due to wet weather and spray plans needed to be modified to lower the risk of disease development.

The first fungicide application in late June is often EBDC applied alone. When this application was not able to be completed on time, the recommendation was to apply a tank-mix of a triazole plus EBDC to increase disease control.

Throughout the remainder of the growing season, there were multiple events that had several days of rapid disease severity values — or DSV — accumulation. Events like these are concerning as they correlate to periods of high risk of leafspot infection and development. These repeated events indicated that risk of leafspot development was high during the 2021 growing season.

Not only did Michigan Sugar Company and its grower-owners experience events with rapid DSV accumulation, but the weather in October also continued to favor the development of leafspot until permanent pile. Above-normal daytime highs and nighttime lows, along with frequent rain, continued to fuel the development of leafspot, especially alternaria leafspot.

While overall leafspot control was still very good, Michigan Sugar Company grower-owners did have fields that burned down due to inadequate leafspot spray programs. They also saw fields with excellent spray programs that were planted to susceptible varieties develop elevated levels of leafspot (Photo 5). The amount of disease in these fields was very concerning as Michigan Sugar Company and its grower-owners nearly saw a severe leafspot outbreak.

## 2021 RESULTS

At the completion of harvest, Michigan Sugar Company saw a record-breaking yield of 37.4 tons per acre, well above the previous record of 31.6 tons per acre set in 2015. The tremendous size of the crop



**PHOTO 3**

A Michigan Sugar Company sugarbeet field with lambsquarters that escaped an application of glyphosate due to abnormally dry weather.



**PHOTO 5**

Leafspot presence in a field with an excellent spray program, but planted with a leafspot-susceptible variety.

resulted in the need to leave a portion of the 161,412 acres to harvest in the field. In the end, the company's Board of Directors voted on a 5% set aside that removed 8,071 acres and a voluntary buyback program netted another 6,457 acres from harvest.

The 146,884 acres harvested resulted in a delivered crop of roughly 5.5 million tons.

Despite the record tonnage, the late-season rains and warmer temperatures, coupled with some impact from leafspot, resulted in reduced sugar accumulation in the beet crop. Sugar content remained stagnant up to the start of permanent pile, at which time it did finally begin to increase. Unfortunately, it was too little, too late, and as a result, average sugar content came in at 16.65% with recoverable white sugar per ton of 245.3 pounds.

It is always amazing how the outlook on the crop can change in a short period of time. In late June, the dry conditions were so concerning that many were wondering if there would be much of a crop at all. Just months later, the crop was so large it exceeded the company's capacity for slicing during a single campaign. Despite such changes, Michigan Sugar Company's grower-owners once again showed dedication and care in producing the best crop possible. ■



**Dennis Bischer** is Director of Agronomy for Michigan Sugar Company's Central and East districts. He began his career at Michigan Sugar in 2017.



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# Sugarbeet Lime Effects Crops in the Northwest

By David D. Tarkalson, Ph.D., USDA-ARS Northwest Soils and Irrigation Research Laboratory

Precipitated calcium carbonate (PCC) is a byproduct of sucrose extraction from sugarbeets and is considered a good lime material for acidic soil treatment. Various lime materials are used in agriculture to ameliorate the negative effects of soil acidification on crop production (Havlin et. al, 1999). An estimated 25% to 30% of world soils are acidic (Havlin et. al, 1999). In the sugarbeet growing area in Idaho, Oregon, and Washington, the pH of most soils ranges from 7.5 to 8.5 and do not require lime applications to adjust soil pH. Not only are lime applications not needed to correct soil pH, but there also are questions regarding potential negative effects of increasing salt concentrations with added PCC.

The three major sugarbeet processing factories in southern Idaho produce approximately 387,000 tons of PCC annually. Most of the PCC is stockpiled near the factories. Without an offsite beneficial use or disposal method for the PCC, the stockpiles will continue to grow. The difficulty in finding more land to stockpile PCC due to availability issues and

high land prices, and potential environmental issues has resulted in the need for Amalgamated Sugar Company to find more offsite beneficial use or disposal methods. Agricultural land application is a practical method to dispose the PCC.

A study was conducted by the United States Department of Agriculture Agricultural Research Service (USDA-ARS) and Amalgamated Sugar Company to assess the effects of added PCC to a common alkaline soil on sugarbeet yields and soil chemical properties. Data will be used to help determine if PCC can be land applied on high pH soils.

The study was conducted from 2014 to 2020 at the USDA-ARS Northwest Irrigation & Soils Research Lab in Kimberly, Idaho, on a Portneuf silt loam soil. The treatments included four PCC application rate/timings. The treatments included a Control (no lime), 3A (3 tons/acre applied 4 years in a row in the fall), 10A (10 tons/acre applied 4 years in a row in the fall), and 40T (40 tons/acre

applied in fall of 2014). The “A” and “T” designations represent “Annual” and “Total.” The total lime applied for the 3A, 10A, and 40T treatments were 12, 40, and 40 tons/acre, respectively (Table 1).

The treatments were selected to: a) determine the effects of PCC on crop production and soil chemical properties (method: Control vs. 3A, 10A, 40T); b) compare the effects of a “low” rate of PCC compared to a “high” rate of PCC (method: 3A vs 10A and 40T); and c) compare the effects of the same total rate of PCC application applied differently over time (10A vs 40T). The treatments were arranged in a randomized block design and each treatment was replicated four times. Each plot was 22 feet wide and 60 feet long.

Soils were sampled in the spring and fall of each year from 0 to 12 inches (Table 1). In the fall of each year the soil sampling was done before PCC application. The soil samples were analyzed for pH (Kalra, 1995), electrical conductivity (EC) (Rhoades, 1996), Total phosphorus (P), Bicarbonate Extractable P (Olsen P,

**TABLE 1. PCC TREATMENT**

*Annual rates and cumulative total amounts applied (in parentheses), crop grown, soil sample date, and lime application date.*

YEAR	2014	2015	2016	2017	2018	2019	2020
CROP	—	SUGARBEET	DRY BEAN	BARLEY	SUGARBEET	DRY BEAN	BARLEY
TONS/ACRE							
Control	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
3A	3 (3)	3 (6)	3 (9)	3 (12)	0 (12)	0 (12)	0 (12)
10A	10 (10)	10 (20)	10 (30)	10 (40)	0 (40)	0 (40)	0 (40)
40T	40 (40)	0 (40)	0 (40)	0 (40)	0 (40)	0 (40)	0 (40)
Soil Sample Date	Oct. 19	April 22	April 18	March 21	April 3	April 18	April 9
Lime Application Date	Oct. 29	Nov. 18	Nov. 30	Nov. 24	—	—	—



# on High pH Soils and United States

1954), NO<sub>3</sub>-N and NH<sub>4</sub>-N (Mulvaney, 1996), Total carbon (C) and nitrogen (N) using a FlashEA1112 CN analyzer (CE, Elantech, Lakewood, NJ). Due to the significant concentration of P in the PCC (Table 2) and the marginal concentrations in the soil over the study area, to eliminate the crop productivity responses to P, in spring 2015, 400 pounds P<sub>2</sub>O<sub>5</sub>/acre (mono ammonium phosphate fertilizer) was applied over the entire study area. Soil fertilizer recommendations were determined each year based on University of Idaho recommendations for each crop.

Following PCC applications each fall the entire study area was disked, moldboard plowed, and roller harrowed. The study area was planted to sugarbeets (BTS 21RR25), in 2015 and 2018, dry beans (Ruby Small Red) in 2016 and 2019, and barley (Moravian 69) in 2017 and 2020. The crops were furrow irrigated to meet estimated crop evapotranspiration (ET<sub>c</sub>) rates (Wright, 1982). The harvest areas within each plot for each crop were 201, 275, and 275 feet<sup>2</sup> for sugarbeets, dry bean, and barley, respectively.

Analysis of variance was conducted for treatment main effects for selected production factors (sugarbeet root yield, sugarbeet ERS yield, sugarbeet root sucrose concentration, sugarbeet root brei nitrate concentration, barley grain yield, and dry bean yield) using a randomized block design model in Statistix 8.2 (Analytical Software, Tallahassee, FL). For significant (0.05 probability level) main effects, the least significant difference (LSD) mean separation method were used to determine treatment differences.

## RESEARCH RESULTS HIGHLIGHTS

### PCC COMPOSITION (TABLES 2 AND 3):

- PCC is a significant source of P, a moderate source of potassium (K), and a minor source of other nutrients and elements. The total amount of P added from the 3A, 10A, and 40T treatments is 444, 1,480, and 1,480 pounds P<sub>2</sub>O<sub>5</sub>/acre, respectively.
- The calcium carbonate equivalency (CCE) is the acid neutralizing value of PCC compared to 100% calcium carbonate. The CCE of the PCC is 75% of pure calcium carbonate making it a good soil pH adjustment liming material.
- The PCC pH (8.5) was slightly higher than most soils in the study area. This soil pH at this site (7.8 to 8.1).

TABLE 2.

*Selected constituent contents and characteristics of the PCC used in this study.*

CCE (%)	75
pH	8.5
EC (mmhos/cm)	2.5
NO <sub>3</sub> -N (mg/kg)	183.8
NH <sub>4</sub> -N (mg/kg)	8.5
P (mg/kg)	8,114.6
K (mg/kg)	873.7
Cu (mg/kg)	17.2
Na (mg/kg)	1,528.1

TABLE 3.

*Total cumulative rates of selected constituents applied from the PCC treatments.*

CONSTITUENT	POUNDS/TON	3A*	10A	40T
—————TOTAL POUNDS/ACRE—————				
NO <sub>3</sub> -N	0.4	4.8	16	16
NH <sub>4</sub> -N	0.02	0.24	0.8	0.8
P <sub>2</sub> O <sub>5</sub>	37	444	1,480	1,480
K <sub>2</sub> O	2.1	25.2	84	84
Cu	0.03	0.36	1.2	1.2
Na	3.1	37.2	124	124

\*The cumulative amount of PCC added for the 3A, 10A, and 40T treatments were 12, 40, and 40 tons/acre.

## RESEARCH RESULTS HIGHLIGHTS, continued

### CROP YIELD AND QUALITY (TABLE 4):

- The addition of PCC at all rates and timings did not affect yields of barley and dry beans compared to no PCC over the course the study. The average dry yields across years and treatments for dry beans and barley were 3,800 and 6,100 pounds/acre.
- For sugarbeets, the only statistically significant effect PCC had was on sugarbeet root yields in 2018. This significant difference in sugarbeet root yield was not easily interpreted according to PCC application rates and timings. Increased root yields in 2018 with PCC could have been the result of increase P concentrations in the soil, but the control treatment soil P levels were sufficient based on soil test recommendations. Also, there were greater differences in soil P between PCC treatments and the control in 2015, with no differences in root yield. It is common in research studies to have significant differences between treatments that are not explained by the treatments.
- The overall interpretation of this data is that PCC did not negatively affect sugarbeet production in this study.

**TABLE 4. SUGARBEET PRODUCTION FACTORS & ANALYSIS OF VARIANCE (ANOVA)**

for treatment effects on production factors. Significance was determined at  $P < 0.05$ . For significant treatment differences, least significant difference mean separations were performed. Within each production factor, study, and year, values with the same letters are not different.

YEAR	TREATMENT	CUMULATIVE LIME APPLIED PRIOR TO LISTED YEAR SUGARBEET CROP (TONS/ACRE) <sup>a</sup>	ROOT YIELD	ERS YIELD	SUCROSE	ROOT NITRATE	ROOT CONDUCTIVITY
			TONS/ACRE	LBS./ACRE	%	MG/KG	MMHOS*
2015	Control	0	41.2 a	12,522 a	17.8 a	140.1 a	0.70 a
	3A	3	39.2 a	11,949 a	17.8 a	139.4 a	0.69 a
	10A	10	39.3 a	11,884 a	17.7 a	140.3 a	0.70 a
	40T	40	41.0 a	12,447 a	17.7 a	135.8 a	0.68 a
	Mean		40.2	12,201	17.8	138.9	0.69
2018	Control	0	28.6 b	9,550 a	193 a	84.0 a	0.64 a
	3A	12	32.8 ab	10,599 a	189 a	90.2 a	0.75 a
	10A	40	37.3 a	11,744 a	184 a	129.3 a	0.73 a
	40T	40	31.9 ab	10,281 a	188 a	78.8 a	0.71 a
	Mean		32.7	10,544	189	95.6	0.71

<sup>a</sup> As-Is Root Water Content (approx. 77% water)

\* mhos is a basic unit for soil electrical conductivity. The added m in mmhos represents 1/1000th (milli) of mhos.

continued on page 32





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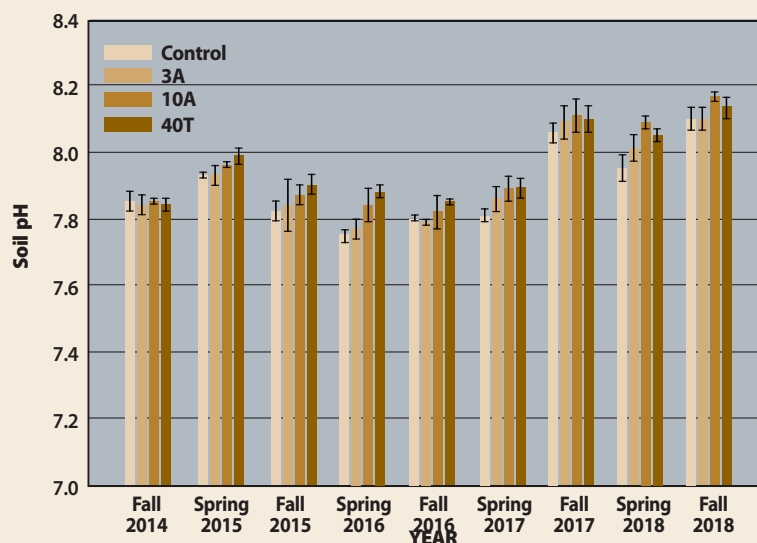
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# RESEARCH RESULTS HIGHLIGHTS, continued

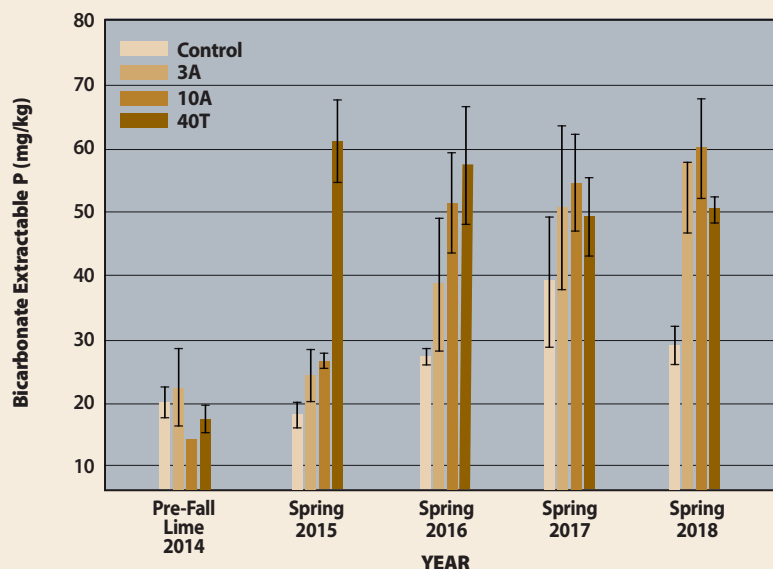
**FIGURE 1. SOIL PH FOR STUDY TREATMENTS OVER TIME**



## SOIL PH (FIGURE 1):

- Soil pH levels varied based on date of measurement. Base pH levels of the control varied between sample time; all other treatments following the same variation. These temporal variations may be the result of several soil factors such as temperature, soil water, and microbial processes.
- The important pH comparisons are between treatments within each sample date. The data shows that before lime applications (Fall 2014), all soils from the study had the same pH. Over time, the plots with lime application showed a trend for increasing pH. However, the increase in pH was not great. Although the PCC was adding acid neutralizing anions, the amount of these ions in the soil were much greater than the amount added in the PCC. This is analogous to adding a few drops of water to a glass of water, the drops of water do not significantly increase the volume of water in the glass.
- The important take away from Figure 1 is that the increase in soil pH from the PCC is not likely to cause any negative effects associated with soil chemistry that would affect plant growth.

**FIGURE 2. SOIL BICARBONATE EXTRACTABLE P (OLSEN P) FOR STUDY TREATMENTS OVER TIME**



## SOIL TEST P (FIGURE 2):

- PCC increased plant available soil P.
- PCC has an added P fertilizer value.
- In soils that have high soil P, PCC can potentially increase negative environmental impacts. The extent of the environmental impacts will vary based on management practices that affects the amount of runoff that enters off-site water streams. Practices that reduce runoff will reduce risks.

## CONCLUSIONS

*Application of PCC at rates up to 40 tons/acre did not negatively affect crop production in a silt loam soil and serves as a P fertilizer source. ■*

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**David Tarkalson** is a Soil Scientist and Cropping Systems Agronomist with the United States Department of Agriculture Agricultural Research Service in Kimberly, Idaho. His current research is focused on deficit irrigation and nutrient cycling in cropping systems. He earned his Ph.D. in Soil Science from North Carolina State University in 2001.



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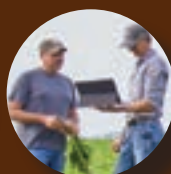
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## THE INSIDE STORY: FACTORIES

# Bay City

*By Jason Lowry, Vice President of Operations,  
and Nick Klein, Director of Engineering*

Michigan Sugar Company invested more than \$1.5 million at the Bay City factory this year with a focus on extending asset life and improving operations.

Refurbishing the steam dryer was the largest project on site totaling more than \$1.1 million. Replacement of the cell walls, dust cyclone, heating plates and nose cone was required following more than 10 years of service. These updates have reduced the energy required to dry pulp and bring the steam dryer back to design capacity.

Safety and security measures were implemented with \$165,000 in capital spent to upgrade four automatic membrane filter presses. Transparent sliding doors replaced the existing flexible curtains around each press and these doors were equipped with safety switches as an access protection upgrade. This was in response to a global safety alert and recommendation from the manufacturer following some significant safety incidents at similar installations.

An additional \$100,000 was spent on upgrades to several motor control centers – or MCCs – throughout the factory, including electrical upgrades to obsolete equipment and securing rooms in response to insurance company recommendations and code changes. ■

**BELOW** In 2021, Michigan Sugar Company replaced the dust cyclone and heating plates on the pulp steam dryer at its Bay City factory. Installed in 2005, the pulp steam dryer can dry down the pulp from 12,000 tons of sliced sugarbeets, reducing the moisture content from 68-72% to 8-12%.



**LEFT** New steam dryer heating plates.

**BELOW** New dust cyclone wall ready to be installed in the steam dryer.



**RIGHT** A contractor installing one of 38 new heating plates around the inside circumference of the steam dryer.





# Caro

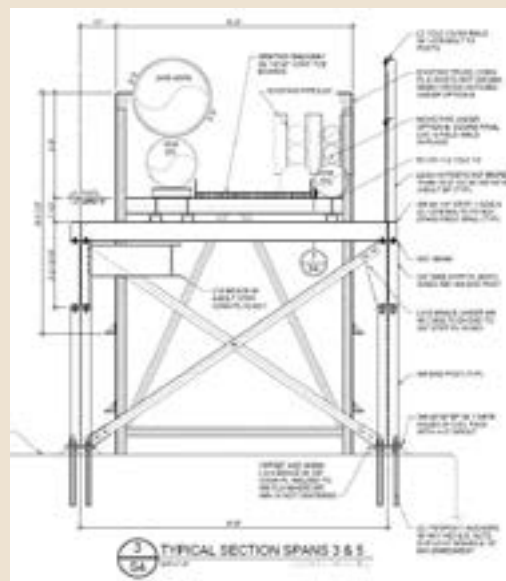
More than \$800,000 was invested in new capital installations at the Michigan Sugar Company's Caro factory this past year.

A high voltage power distribution system upgrade was completed at a cost of \$300,000 to update the electrical system. The project added new switch gear and a transformer in a new power distribution

house that provides a clean environment that will extend the life of these assets. Failure of this asset was the root cause of significant downtime in January 2020.

Michigan Sugar Company has earmarked \$500,000 to repair to the trestle bridge over the Cass River. This bridge houses several pipelines connecting the factory to

the water treatment ponds. After more than 50 years of service, upgrades were needed to maintain the structural integrity for continued support of the piping. The project required a permit from the state, that was slow to be issued, and as a result the bridge work is scheduled to begin in November. ■



**ABOVE/LEFT** A new power distribution house at Michigan Sugar Company's factory in Caro includes new switch gear and a transformer. The house provides a clean environment aimed at extending the life of those assets.



**ABOVE/TOP** Engineering plans for upgrades to the trestle bridge that spans the Cass River at Michigan Sugar Company's Caro factory. **BOTTOM** The trestle bridge houses several pipelines connecting the factory to the water treatment ponds. After more than 50 years of service, upgrades are needed to maintain the structural integrity for continued support of the piping.



**Jason Lowry** is Michigan Sugar Company's Vice President of Operations. In this role, he provides leadership and direction to the areas of factory operations, engineering, asset management, environmental compliance, and quality for the company. Jason has worked in the global sugar industry in both beet and cane sugar milling and refining. He joined Michigan Sugar in 2019.



**Nick Klein** is Director of Engineering for Michigan Sugar Company. He is a 2003 graduate of Ferris State University and joined Michigan Sugar Company in 2009. Nick currently serves on the Board of Directors for the American Society of Sugar Beet Technologists. He and his wife Megan have three children.

# Croswell

This past year, \$16.5 million was invested in upgrades to increase slice capacity in the final phase of a multi-year expansion at the Croswell factory.

This included \$3 million for a 40,000-square-foot evaporator and reconfiguration of the evaporator train to maximize throughput and steam efficiency for the factory.

Two Belgian, coal-fired lime kilns (shown below), original to the factory when it was built in 1902, were removed and replaced with one natural gas-fired lime kiln expected to save the company \$300,000 annually in energy costs. This was the largest project at the factory with a cost of \$8.5 million. With an inside diameter of 9.5 feet, the new lime kiln has the capacity to burn 250 tons per day of limestone and produce nearly 130 tons per day of Calcium Oxide (CaO) for the process.

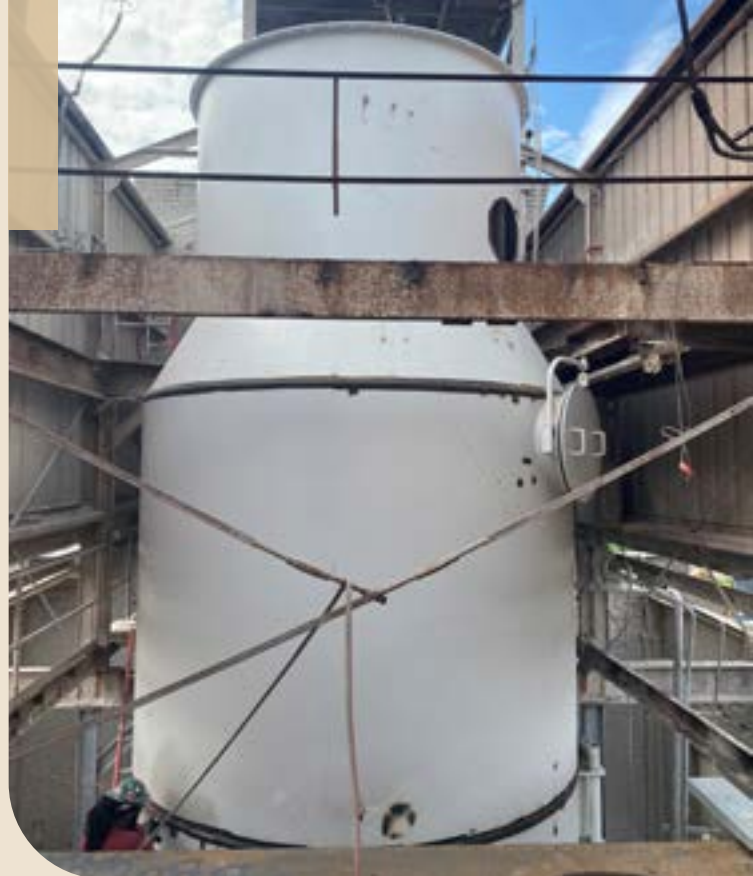
Another \$2.7 million was spent on three mud dewatering belt presses, a mini-clarifier and automated polymer feed system. The belt presses are designed to separate solids from the flume clarifier underflow and can produce a dry cake with more than 40% solids. Removing the solids before they hit the ponds will increase wastewater treatment capacity and aid in environmental compliance.

A flume water filter and chip separator belt were installed at a cost of \$2.3 million. The new system has the capacity to filter 4,500 gallons per minute of flume water and separate large beet chips from weeds and fines.

In addition to the upgrade projects, \$7 million was spent on three membrane filter presses to replace the rotary vacuum filters in purification. The newer technology will increase sugar recovery from this area of the process with increased capacity while producing a dryer lime cake for agricultural applications. ■

## RIGHT

Two 1902 Belgian coal-fired lime kilns were replaced with one natural gas-fired lime kiln.



**ABOVE** Jonathan Robbins, of FIS GROUP, works to assemble a new lime kiln on Thursday, May 20, 2021, at Michigan Sugar Company's Croswell factory. Michigan Sugar removed two coal-fired lime kilns built in 1902 and replaced them with this new natural gas-fired lime kiln.



**ABOVE** A new 40,000-square-foot evaporator and reconfiguration of the evaporator train is designed to maximize throughput and steam efficiency for the factory.

**LEFT** One of three belt presses that separates solids from the flume clarifier underflow and can produce a dryer cake with more than 40% solids.



# Sebewaing

At the Sebewaing factory, \$75,000 was spent to repair floors that had deteriorated over time due to the environment. Old surfaces were ground down, uneven areas repaired, and a new self-leveling quartz floor coating was applied. This application is proving to have good chemical resistance, and long-term durability, and also is safer because it provides a non-slip surface.

Another \$300,000 was spent to replace a bucket elevator conveying sugar away from the granulator with a new elevator and explosion protection system to improve the overall safety of the area. This was in response to discussions with Michigan Sugar Company's insurance company and internal risk mitigation exercises.

**RIGHT** Old floor surfaces that had deteriorated over time due to the environment have been repaired, providing good chemical resistance, long-term durability, and a non-slip surface for safety.

**BELOW** A low raw mass pump and associated automation were recently installed at Michigan Sugar Company's Sebewaing factory.

Additionally, \$175,000 was spent to install a low raw mass pump and associated automation. A rotary lobe pump and pipeline were installed to create a pressurized massecuite loop and provide consistent feed to the centrifugal station. This has improved control of wash water, steam addition, and overall sugar recovery. ■





IN THE FIELD: GROWER SPOTLIGHT

# Meet the New





# Crop

## COUSINS TED, CHAD, AND ADAM BAUER ARE FIFTH GENERATION TO RUN LARACHA FARMS IN REESE

By Rob Clark, Director of Communications and Community Relations

**A**s kids, cousins Ted, Chad, and Adam Bauer dreamed of one-day running their family farm in Michigan's Thumb.

"I think we all knew pretty early on that this is what we wanted to do," said Chad Bauer, 43. "From the time we were riding around with our dads, falling asleep in the beet harvester, we always wanted to take over running the farm someday."

### DREAMS DO COME TRUE.

But in this case, it didn't happen overnight or without years of planning and preparation.

"There were many, many hours spent with lawyers and accountants to make the transfer of the operation a smooth one," said Ted Bauer, 49. "We learned the value of succession planning."

Today, the Bauer cousins are full owners of Laracha Farms, a 7,500-acre operation based in Reese with farmland in Bay, Lapeer, Saginaw, Sanilac, and Tuscola counties. Crops grown on the farm are corn, soybeans, dry beans, pickling cucumbers, and 2,500 acres of sugarbeets.

The fifth generation of their family to run the farm, Ted, Chad, and Adam took over for their fathers, for whom the farm is named — Larry (Ted's dad), Randy (Chad's dad), and Charlie (Adam's dad).

"The nuts and bolts of our plan was that you had to be 25 years old to be eligible to buy into the farm at 10%," explained Adam Bauer, 38. "All three of us did that and as time went on, we gradually assumed more of the ownership stake until our dads stepped away."

Larry Bauer was the first to retire in 2014. His brothers Randy and Charlie followed suit at the end of 2020, at which time their sons assumed full ownership.

With 14 full-time employees on staff, it didn't take the cousins long to begin moving forward. In February 2021, they broke ground on an expansion project of the farm's main building, re-sheeting and insulating the entire structure, renovating the office, and adding a new 4,000-square-foot truck bay and 1,000-square-foot chemical storage area.

"We're always looking to expand," said Adam Bauer.

"And we're always willing to try new things," added Chad Bauer. "We're not afraid to take on a new project to try to diversify."

### MULTI-GENERATION FARM

When you study the history of Laracha Farms, it is important to note the contributions of two families — the Bauers and the Haacks.

The Laracha farmstead in Reese remains on land settled by Herman and Katherina Haack, who immigrated to the United States from Germany in the late 1800s. The next generation of the Haack family to run the farm was William Haack and his wife Louise. Their daughter, Marian Haack, married Ruben Bauer, who was the third generation of his family to farm in the Reese area.

Ruben Bauer's parents, Bernhard and Amanda Bauer, and his grandparents, Johann and Christina Bauer, ran their farm before him.

Ruben and Marian Bauer had four children — Sandra, Larry, Randy, and Charlie.

*continued on page 40*

**LEFT** Members of the Bauer family involved in the day-to-day operation of Laracha Farms in Reese are, from left, Terri Bauer (Adam's mom), Adam Bauer, Chad Bauer, Ted Bauer, Jackson Bauer (Ted's son), and Shannon Bauer (Adam's older brother). The farm is owned by cousins Adam, Chad, and Ted.



**Rob Clark** is Director of Communications and Community Relations for Michigan Sugar Company. He is a 1995 graduate of Knox College and worked for 22 years as a journalist before joining Michigan Sugar Company in 2018. He and his wife Claire have four sons.



"My mom and dad really took the farm to a new level," said Charlie Bauer, who before retirement served as a member of Michigan Sugar Company's Board of Directors. "Our family ended up running the farm that was established on the Haack side of the family, but there is still a different shoot of the Bauer family farming the original Bauer land as well."

Larry and Karen Bauer have two children — Ted and his older brother Matt.

Randy and his first wife, Denise, have three children — Chad, his older brother Shannon (who works at Laracha Farms), and his younger sister Crystal. Randy Bauer also has a stepson named Danny with his second wife Dawn.

Charlie and Terri Bauer (Terri is the bookkeeper at Laracha Farms) have two children — Adam and his older sister Kelly.

The Bauer cousins — Ted, Chad, and Adam — have families of their own who are the sixth generation to be part of the farm.

Ted has two children — Cameron, 22, and Jackson, 21, and two stepchildren with his

wife Megan — Jennifer Smith, 24, and Jason Smith, 21.

Chad Bauer also has two children — Levi, 12, and Crosby, 10.

Adam and Katie Bauer are parents to three children — Harper, 7; Piper, 4; and Cash, 1.

"We definitely have a large family with a lot of voices, but I think we have fewer challenges than most families that farm together," said Chad Bauer. "No one is looking to get out ahead. Everyone has the same goals. It's a credit to good planning and it's good for all of us."

### **'MOST EXCITING TIME OF THE YEAR'**

All three of the Bauer cousins have early childhood memories of harvesting sugarbeets with their fathers and they understand the legacy they are now protecting and carrying on.

"Our family has been growing beets here since the late 1800s," said Chad Bauer, raising his hand with his finger pointed. "They used to load them by hand on railcars 800 feet from here. Beets has always been us and they have always paid the bills."

"And beet season was always the most exciting time of the year for us."

Ted Bauer concurred and said there was never anything he wanted to do more come harvesttime than be out in the sugarbeet fields.

"I remember in fourth grade being in competition with a buddy to see who could get out of school the most," he said, looking back on his days at St. Michael's Lutheran School in Richville. "There was nothing better than harvesting sugarbeets."

Laracha Farms has come a long way from the days when the family used a John Deere 4010 tractor to pull a John Deere 223 beet harvester to dig sugarbeets. Today, they use a 12-row, Holmer Terra Dos T4-40 beet harvester and two Kringstad Big Bear carts to harvest their sugarbeet crop.

"Thanks to technology, today's harvest takes fewer people and there is far less compaction of the soil and impact to the land," said Adam Bauer. "We work hard to continue evolving as a farm operation."

Laracha Farms owners Adam, Chad, and Ted Bauer are pictured here with their families. They are, from left: Adam and Katie Bauer with their children Harper, Piper, and Cash, and dogs LuLu and Bentley; Ted and Megan Bauer (in black shirts in the middle) with their children Cameron Bauer (to Ted's left with her fiancée Mitch Kiefer), and Jason Smith and Jennifer Smith (to Megan's right) followed by Jackson Bauer and his fiancée Shelby Scharrer. Dogs are Remi, Kolt, Faye, and Paisley; and Chad Bauer with his children Crosby and Levi and their dog Hank.







Sugarbeets are harvested from a Laracha Farms field in Reese on Thursday, Sept. 16, 2021. Behind the wheel of the harvester is Ted Bauer and his son Jackson.

## MEET THE NEW CROP

Ted, Chad, and Adam Bauer all went to school at St. Michael's in Richville before going on to high school, where they all played football. Both Chad and Adam played in the much-loved Pioneer Sugar Bowl — an annual football game between the Reese Rockets and Unionville-Sebewaing Area Patriots.

Ted graduated from Frankenmuth High School in 1991 and went on to earn his associate degree in agribusiness from Michigan State University in 1993. Today, he is an Elder at St. Michael's Lutheran Church, Treasurer for the Michigan Bean Commission, and a member of the Labor Board at Bayside Best Bean in Sebewaing.

Chad graduated from Reese High School in 1996 and studied small business management for one year at Delta College. He is a member of St. Michael's Lutheran Church and serves on the Executive Business Council for Syngenta's AgriEdge program.

Adam graduated from Reese High School in 2002 and earned his associate degree in small business management from Delta College in 2004. He is a member of Christ Lutheran Church in Reese, the Richville Conservation Club, and the Munger Volunteer Fireman Corps. In 2019, he was elected to Michigan Sugar Company's West District Board of Directors.

"Ted, Chad, and Adam have always been ahead of their time," said Michigan Sugar Company Field Consultant David Ganton, who has worked with Laracha Farms for 32 years and

knew the Bauer cousins when they were children. "They were typical young farm boys, but they were doing more as very young adults than many who were older. They are innovative and they know they have to continue to improve in order to stay competitive."

Ganton said this generation of the farm family benefited greatly from the generations that came before them.

"They had good teachers," he said. "And the transition was smooth. It wasn't too long ago the three dads were in it full time and now the boys are into it up to their eyeballs. Laracha was unique in that you had three dads and the three boys, but it had to be that way for the farm to maintain its size and do all the things being done today."

All along the way, Ganton said the Bauers — the boys and their fathers — have leaned on him for his input and expertise.

"They have always been very good at including me," he said. "They value my opinion and ask for it regularly."

And as for the future? Ganton said the farm is in good hands.

"I never see too much animosity. They all respect each other in that they're not going to create a scenario where there is tension. They don't always agree but they always respect each other's opinions," he said.

"They have good communication with each other and genuinely enjoy working together. I can vouch for that. I know that for a fact." ■



Ted Bauer and his son Jackson Bauer harvest sugarbeets from a Laracha Farms field in Reese on Thursday, Sept. 16, 2021. Ted is part of the fifth generation of Bauers to farm this land and Jackson is part of the sixth generation.



# The Faces of Cream & Sugar Ice Cream Co.

If you've had the opportunity to stop by Cream & Sugar Ice Cream Co. at Uptown Bay City for a bubble cone, a scoop in a bowl, or maybe an ice cream sandwich featuring two fresh-baked cookies, then you've probably seen a photo of Harper and Piper Bauer.

Sitting in a field of sugarbeets, holding ice cream cones, a photograph of the girls is prominently displayed on the walls of the ice cream shop, which opened in September 2019 at 160 Uptown Drive, just two floors below Michigan Sugar Company's Corporate Headquarters.

Harper, 7, who is in first grade at Reese Elementary School and Piper, 4, are the children of Adam and Katie Bauer of Laracha Farms in Reese. They also have a younger brother named Cash, who recently celebrated his first birthday.

"Both Harper and Piper absolutely love ice cream and they love being the faces of Cream & Sugar.

*Sisters Harper, left, and Piper Bauer enjoy Cream & Sugar Ice Cream cones in a sugarbeet field at Laracha Farms in Reese.*

They enjoy hearing about when someone sees their picture on the wall," said Katie Bauer, who has made it a bit of a family tradition to capture photos of the kids in the farm's sugarbeet fields each year. "We make a family outing every Sunday, if possible, to go check out sugarbeets that the kids have picked when they first popped out of the ground. We started this when Harper was almost 2 years old, and it just has continued each year."

Katie Bauer said assembling a collection of great photos is just a bonus to the real lessons being taught in the farm fields.

"We are raising them to know the importance of agriculture, hard work, and being a part of a farming family," she said.

And their favorite ice cream at Cream & Sugar? Is it Uptown Funk, or Michigan Sugar Cookie, or maybe Dairy Farmers Delight?

"If you ask them, you can't go wrong with Birthday Cake," said Katie Bauer. ■

— Rob Clark



## If You Go...

**WHAT:** Cream & Sugar Ice Cream Company

**WHERE:** 160 Uptown Drive, Bay City, MI 48708 (located at Uptown Bay City)

**HOURS:** Cream & Sugar Ice Cream Company is scheduled to re-open in March 2022. Please stay tuned to the company's Facebook page and website at [creamsugarbaycity.com](https://creamsugarbaycity.com) for hours of operation.

**PHONE:** 989-322-1000

**ONLINE:** [creamsugarbaycity.com](https://creamsugarbaycity.com), Facebook







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# A Celebration of Service

**MICHIGAN SUGAR COMPANY  
HONORS EMPLOYEES WITH  
SUMMER FUN**

*By Rob Clark, Director of Communications and Community Relations*

For the second year in a row, Michigan Sugar Company officials hit the road to thank employees and honor those celebrating milestone work anniversaries.

This time around, in most cases, the celebrations included a little fun as employees were treated to an event that included cornhole and ladder ball games, along with a delicious meal, fellowship, and camaraderie.

In recent years, Michigan Sugar has held its annual Employee Service Awards presentation at Saginaw Valley State University, inviting employees from across the company's footprint to come to Saginaw County for the day. Last year, concerns over the COVID-19

pandemic led to a reboot of sorts with celebrations being held outdoors in tents and community pavilions in each factory town.

After a positive response to that format, outdoor events once again became the standard this year with ceremonies taking place June 21-28. In most cases, tents were raised outside Michigan Sugar's factories in Bay City, Caro, Croswell, and Sebewaing. Employees from Corporate Headquarters gathered at Horizon's Conference Center in Saginaw.

In total, the company honored 123 employees celebrating five, 10, 15, 20, 25, 30, 35, 40, and 45 years of service.

Each event included remarks from Michigan Sugar Company Executive Vice President James Ruhlman.

"This past year has been unlike any other in the history of our company, as our essential employees continued to operate in the midst of a pandemic," said Ruhlman. "Not once did our people say, 'We can't do this.' I don't know how to thank you enough for that. You put the work in and made us all proud."

Here is a look at the employees recognized during the events. To them, and to all our employees, thank you for your service! ■



**ABOVE** Richard Schroeder, a crane operator at Michigan Sugar Company's Croswell factory, was honored Monday, June 28, 2021, for 40 years of service to the company during an annual Employee Service Awards event.



**ABOVE** Employees from Michigan Sugar Company's Caro factory gather during an Employee Service Awards event held Wednesday, June 23, 2021.



**RIGHT** Employees from Michigan Sugar Company's Croswell factory gather during an Employee Service Awards event held Monday, June 28, 2021.



# RECOGNITION BY DEPARTMENT, LOCATION & YEARS OF SERVICE

## 5 YEARS

Robert Bucholtz	Agriculture	Bay City
Michael Lacross	Agriculture	Bay City
Robert Belchak	P&W	Bay City
Philip Hamme	P&W	Bay City
Julio Mota	P&W	Bay City
Maria Nunez	P&W	Bay City
Aubrey Pruitt	P&W	Bay City
Dean Toner	P&W	Bay City
Marylou Zeleznock	P&W	Bay City
Jeffery Grevel	Operations	Bay City
Kenneth Kaunitz	Operations	Bay City
Timothy Maxson	Operations	Bay City
Thomas Burnham	P&W	Caro
Fabian King	P&W	Caro
Robert Edwards	Operations	Caro
Matthew Ewald	Operations	Caro
Dale Neumann	Operations	Caro
Matthew Provo	Operations	Caro
Ryan Ross	Operations	Caro
James Wonnacott	Operations	Caro
Stacy Becerril	Accounting	Corporate
Corey Guza	Ag. Admin.	Corporate
Elizabeth Taylor	Ag. Admin.	Corporate
Chaise Wilson	Sales & Marketing	Corporate
Eric Angell	P&W	Croswell
Raymond Bower	P&W	Croswell
Graham Fuller	P&W	Croswell
Andrew Hall	P&W	Croswell
David Kandler	P&W	Croswell
Brian Klauka	P&W	Croswell
Dennis McCabe	P&W	Croswell
Trevor Perry	P&W	Croswell
Wayne Sharrow	P&W	Croswell
Steven Tropf	P&W	Croswell
Allen Wilkinson	P&W	Croswell
Brad Carrier	Operations	Croswell
Joseph Junga	Operations	Croswell
Charles Luzier	Operations	Croswell
Justin Uhring	Operations	Croswell
Ezra Arnold	P&W	Sebewaing
Brian Decoe	P&W	Sebewaing
Kenneth Dutcher	P&W	Sebewaing
Joseph Fischer	P&W	Sebewaing
Charles Guel	P&W	Sebewaing
Stephen Shaltonis	P&W	Sebewaing
Kendall Sprague	P&W	Sebewaing
David Badder	Operations	Sebewaing
Joseph Dinsmoore	Operations	Sebewaing
Ronald Engelhardt	Operations	Sebewaing
Denzial Jones	Operations	Sebewaing
Mark Linzner	Operations	Sebewaing

## 10 YEARS

Michael Reed	Agriculture	Bay City
Anthony Baranek	P&W	Bay City
Joseph Baranowski	P&W	Bay City
Lori Blohm	P&W	Bay City
David Darland	P&W	Bay City
Nicholas Dupuis	P&W	Bay City
George Hartsfield	P&W	Bay City
Kenneth Keister	P&W	Bay City
Andrew McDonald	P&W	Bay City
Rodrigo Nunez	P&W	Bay City
Doug Blanchard	Operations	Bay City
David Fischer	Operations	Bay City
Austin Horstman	Operations	Bay City
Robert Mitchell	Operations	Bay City
Robert Rangel	Operations	Bay City
Gregory McPhail	Agriculture	Caro
Loren Ames	Operations	Caro
Michael Cryderman	Operations	Caro
Anthony Polega	Operations	Caro
Eddie Williams	Operations	Caro
Steven Jones	P&W	Carrollton
Kathy Bellows	Accounting	Corporate
Mary Hildebrandt	Accounting	Corporate
Amy Rodriguez	Accounting	Corporate
Rebecca Benz	Sales & Marketing	Corporate
Brian Deutsch	Safety	Corporate
Randy Lesniak	Operations	Croswell
Joseph Weaver	Operations	Croswell
Timothy Holland	P&W	Sebewaing
Georgia Chard	P&W	Sebewaing
John Brenner	Operations	Sebewaing
Ronald Graves	Operations	Sebewaing

## 15 YEARS

Jimmy Alexander	P&W	Bay City
Deborah Blohm	P&W	Bay City
Rocky Jacobs	P&W	Bay City
Patrick Rangel	P&W	Bay City
Ralph Switala	P&W	Bay City
John Karpuk	Research	Bay City
David Cobb	Operations	Bay City
Alex Demeter	Operations	Bay City
David Makovics	Operations	Bay City
Brett Toth	Operations	Bay City
Matthew Villaire	Operations	Bay City
Jason Lynk	P&W	Caro
Joseph Hill	Operations	Croswell
David Soule	Operations	Croswell
Lowell Willis	Operations	Croswell
Eric Ballard	Agriculture	Sebewaing
Justin Goslin	Operations	Sebewaing

## 20 YEARS

Carlin Wilson	P&W	Bay City
Paul Regnerus	Operations	Caro
Jeffery Duffy	Operations	Croswell
Kim Loeffler	Operations	Sebewaing
Dean Sweeney	Operations	Sebewaing

## 25 YEARS

Steven Van Hove	Operations	Bay City
Matthew Hill	Agriculture	Caro
Gerardo Cepeda	Operations	Croswell
Sherri Adams	Operations	Sebewaing
Donald Graf	Operations	Sebewaing

## 30 YEARS

Mark Wedding	Operations	Bay City
Dawn Premo	Accounting	Corporate
Pat Terrill	Agriculture	Sebewaing
Steven Kelcher	Operations	Sebewaing

## 35 YEARS

Allan Makovics	Operations	Bay City
Kelly Scheffler	Operations	Bay City
Arthur Schneider	P&W	Caro
Mark Engelhardt	Operations	Sebewaing
Brian Rogers	Operations	Sebewaing

## 40 YEARS

Gene Leinberger	Operations	Bay City
Scott Sebald	Operations	Bay City
Richard Schroeder	Operations	Croswell

## 45 YEARS

Gary Westbrook	Operations	Croswell
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**RIGHT** Scott Sebald, left, and Gene Leinberger were honored for 40 years of service to Michigan Sugar Company during an Employee Service Awards event held Monday, June 21, 2021, at the company's Bay City factory.



**ABOVE** Employees from Michigan Sugar Company's Sebewaing operation enjoyed playing games during this year's Employee Service Awards held Tuesday, June 22, 2021. Here, Justin Ondrajka tosses a cornhole bag during a game vs. Ed Braun.



# Kevin Romzek Honored with 2021 Ernest Flegenheimer Award

*By Rob Clark, Director of Communications and Community Relations*

## Sebewaing Factory Manager planted career with Michigan Sugar Company in 2009

One by one, Kevin Romzek's co-workers came to offer their congratulations and their goodbyes.

"Much deserved," boomed one voice.

"You earned it," followed another.

"We're sure going to miss you," came a third.

These were the sentiments of Romzek's co-workers at Michigan Sugar Company's Caro factory on Wednesday, Oct. 6, 2021, as their leader was honored as the 16th recipient of the company's prestigious Ernest Flegenheimer Award, given to employees in recognition of their wisdom, integrity, and character — the same attributes Mr. Flegenheimer brought to the company as President and CEO from 1963 to 1993.

The celebration also served as a going-away party, as Romzek — who joined Michigan Sugar in 2009 as a Maintenance Engineer in Caro and had worked his way up to become the Factory Manager — was preparing to depart to take on a new leadership position as Factory Manager at the company's Sebewaing location.

There was cake, many smiles, and a few lumps in throats.

"It's awesome being recognized in such great company," said Romzek, noting he knows most of the previous recipients of the Ernest Flegenheimer Award. "I never thought my name would be on that plaque; there's always someone bigger and better out there. This is validation of a lot of hard work and effort put in."

A native of Ruth and a 1999 graduate of Harbor Beach High School, Romzek earned his bachelor's degree in mechanical engineering from Michigan Technological University in Houghton in 2004. He was promoted to Caro Factory Manager in January 2020, after working as Factory Superintendent and, before that, Maintenance Manager. His duties as Sebewaing Factory Manager began on Monday, Oct. 11, 2021, as part of a reorganization that saw former Sebewaing Factory Manager Randy Lesniak take over as Croswell Factory Manager.

Romzek and his wife Karen live in Uby and have two daughters — Sarah and Laura.

In presenting the award, Michigan Sugar Company Executive Vice President James Ruhlman noted it serves two purposes:



**LEFT** Michigan Sugar Company Sebewaing Factory Manager Kevin Romzek, second from right, received the 2021 Ernest Flegenheimer Award during a ceremony held Wednesday, Oct. 6, 2021, at the company's factory in Caro, where Romzek previously served as Factory Manager. Presenting the award are, from left, Jason Lowry, Michigan Sugar Company's Vice President of Operations; Executive Vice President James Ruhlman; and President and CEO Mark Flegenheimer.

"One, it reminds us of the man for whom the award was named and secondly, it recognizes someone in our company today who possesses the same qualities that Ernest Flegenheimer did when he led our company," said Ruhlman. "... Ernest was recognized throughout the company, throughout the industry, for his core values and his consistent principles. He earned the respect of everyone around him with his sincere thoughts and spirited actions. He listened more than he spoke, but when he spoke it was eloquent, meaningful, and accurate. He had a quiet humbleness about him that made him even more impressive to those of us that knew him."

Ruhlman said Romzek possesses many of those same attributes.

"Like Ernest, he has a quietness and a humility about him that makes him approachable and connectable. He lets his actions speak, for he understands that they are truly louder than his

words. He understands the value of setting an example and letting his team follow his lead," he said. "His co-workers will tell you that he's always there for them. He's a mentor, a coach, and a leader that they can rely on for sage advice."

Ruhlman said Romzek's wisdom comes from his attention to detail and how he methodically studies the process of making sugar.

"He has become a master at his craft and has earned the respect of everyone here for his hard work and gentle hand."

The 2021 Ernest Flegenheimer Award took on added significance in that it was the first time the award had been given since Mr. Flegenheimer passed away in February 2021 at age 94.

"This is very special to me," said Romzek. "It's very humbling." ■

## Ernest Flegenheimer Award Winners 2006-2021

Recipients of the prestigious Ernest Flegenheimer Award, given in recognition of their wisdom, integrity, and character while serving Michigan Sugar Company:

2006 – John Wyett

2007 – Jim Martin

2008 – Chris Dunham

2009 – Robert Arnold

2010 – Keith Kalso

2011 – Carol Kunitzer

2012 – Julie Perry

2013 – Eugene Stewart

2014 – Rick List

2015 – George Painter

2016 – Gerald Sorenson

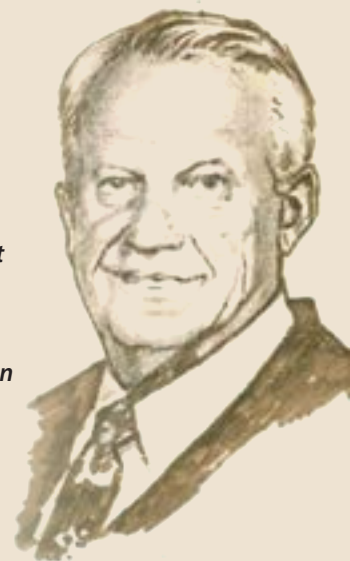
2017 – Ann Kovacs

2018 – Tanya Richard

2019 – Tricia DeGroat

2020 – Pat Terrill

2021 – Kevin Romzek



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989-673-8400

Fenton  
2139 W. Baldwin Rd.  
810-655-4886

Lapeer  
3120 N. Lapeer Rd.  
810-664-3798

Marlette  
7454 Van Dyke Hwy.  
810-346-2761

Reese  
9952 Saginaw St.  
989-868-4165

Saginaw  
6150 Bay Rd.  
989-791-1234

Sandusky  
989 W. Sanilac Rd.  
810-648-2404



## OUR SWEET HISTORY

Erwin Schave, 98, of Huron County's Bloomfield Township, near Port Hope, holds a sugarbeet at his farm on Oct. 28, 2021. Last year marked the 75th Schave harvested a crop of his own sugarbeets. His first harvest was in 1947, but sugarbeets have been grown on the farm his entire life.



# STILL SWEET AFTER ALL THESE YEARS

## MICHIGAN SUGAR COMPANY GROWER-OWNER ERWIN SCHAVE HARVESTS HIS 75TH SUGARBEET CROP



An aerial view of Schave Farms, founded in 1883 in Huron County's Bloomfield Township near Port Hope.

*By Rob Clark, Director of Communications and Community Relations*

As a young boy in the early 1930s, Erwin Schave remembers the daily harvest time routine at his family's farm in Huron County's Bloomfield Township near Port Hope.

"We had a wooden-wheel wagon with a wooden box pulled by two horses," said Schave, who still lives in the house where he was born on Jan. 14, 1924. "We would load it up at night and then deliver the beets the next morning to Harbor Beach, where they were loaded onto railcars and sent to Croswell. Then, we'd return home, load up the cart again and deliver one more load."

The day ended late at night with another load of beets prepared for delivery the next morning.

"That wagon had a spring-loaded seat that me and my dad would ride on to take the shock off. There were not too many beets in a load back then, not even two tons," said Schave, who at 98 years old is still growing sugarbeets as a shareholder for Michigan Sugar Company. He gets some help these days digging his 15 acres, but says he still drives the tractor during harvest.

Last year marked his 75th harvest. He grew the first crop of his own beets in 1947.

"I've always liked sugarbeets," he said.

Schave was the oldest of eight children born to Adolph and Alice Schave. His grandparents, Joanna and Annie Schave immigrated to the United States from Germany and started the farm in 1883.

Erwin Schave (pronounced Shave) attended the one-room Ingram School through the eighth grade. He said he wanted to go on to high school, but was needed on the farm, something





**LEFT** Erwin Schave's father Adolph Julius Schave, left, lived from Jan. 1, 1874, to March 23, 1951. His mother, Alice Wilhelmina Sternberg Schave, right, lived from June 24, 1896, to Aug. 26, 1983.



**ABOVE** Erwin Schave is pictured here on his "antique" Co-op tractor. Over the years, Schave has used all sorts of equipment to harvest sugarbeets and other crops on his farm in Huron County's Bloomfield Township. His first sugarbeet harvester was a one-row Scottviner belt drive that would lift and top the beets with one machine but would also throw off the belts every 15 minutes. He then graduated to a two-row John Deere harvester followed by a four-row John Deere.



**ABOVE** Erwin Schave is shown at left in this harvest photo from 1947 — the first year he harvested a crop of his own sugarbeets at his farm in Huron County's Bloomfield Township. At right is Jerry Sommers, an employee of the farm back then. When Erwin Schave began growing sugarbeets in the late 1940s, a typical yield was between 8 and 9 tons per acre. In 1948, he raised 12-ton-per-acre beets, the best in the area that year. The Schave farm grew as many as 85 acres of sugarbeets in the 1970s through the 1980s and Erwin's harvesting group, at one time, dug as many as 600 acres in the Thumb. Today, at age 98, Erwin still grows 15 acres of sugarbeets on the farm.



**LEFT** Erwin and Helen Schave were married in 1975. Helen was Erwin's second wife, following the death of his first wife, Myrtle, in 1969. Erwin and Helen were married for 38 years before her passing.

*"I tell people I've been growing sugarbeets my whole life," said Schave. "My grandpa grew them, my dad grew them, and they've always been a part of my life."*

common back then. He worked alongside his father for several years until the early 1940s, when he left for Detroit and a job at Hudson Motor Car Company.

"I went down with a buddy and stood in line, and they called my name," said Schave. "I had a doctor examination and they put me to work."

He returned home in 1944 and began farming full time. He later also operated a sawmill, cutting logs for the former Michigan Lumber Fabricators in Elkton, until 1974.

On Aug. 22, 1951, Erwin Schave married his wife Myrtle, and they had eight children — Jerry, Linda, Sharon, Joanne, Gary, Charlie, Connie, and Faye. Myrtle passed away in 1969 after a battle with cancer. In 1975, Schave married his second wife Helen, and they were married for 38 years before her passing.

Today, Schave has 12 grandchildren and 18 great-grandchildren, as well as his step-relatives from Helen's side of the family. The family farm now comprises about 80 acres of sugarbeets, soybeans, black beans, and wheat.

"I tell people I've been growing sugarbeets my whole life," said Schave. "My grandpa grew them, my dad grew them, and they've always been a part of my life." ■



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# Ally Kemp of Unionville Crowned 2021 Michigan Sugar Queen

*By Rob Clark, Director of Communications and Community Relations*

## **Kenna Karst of Frankenmuth, Raven Wieland of Pinconning also named to Queen's Court**

On most weekdays in the summer months, you can find Ally Kemp behind the wheel of an off-road truck hauling dirt at Michigan Sugar Company's factory in Sebewaing. For the past six years, that's been her summer job, working at the factory as an employee of her family's business, Kemp Tiling Co. Inc.

"I have seen, firsthand, the sugarbeet process," said Kemp, who was crowned the 2021 Michigan Sugar Queen during a ceremony held Friday, June 18, 2021, at Michigan Sugar Company's Corporate Headquarters in Bay City. "Ultimately, Michigan Sugar Company is more than just people producing sugar. It is a company of local workers

all striving toward the same goal of building a community that is based off locally sourced products."

Kemp, 19, is a native of Unionville in Tuscola County and a 2020 graduate of Unionville-Sebewaing Area High School, where she was the class salutatorian. She attends Oakland University where she is pursuing a degree in nursing. Her goal is to one day work as a pediatric nurse practitioner in a rural area.

She is the daughter of David and Kristi Kemp.

"Being the 2021-2022 Michigan Sugar Queen has been an absolutely incredible experience,"

said Kemp. "My favorite part is meeting our grower-owners and personally getting to know their role within the cooperative."

At college, she said one of her favorite pastimes is explaining the sugarbeet process to her friends and classmates on campus.

"It's surprising how many people I meet that don't know sugar can come from a beet," she said.

Joining Kemp on this year's Michigan Sugar Queen's Court are Kenna Karst, 21, of Frankenmuth, and Raven Wieland, 19, of Pinconning.



**LEFT** Michigan Sugar Queen Ally Kemp, center, and Queen's Court Attendants Raven Wieland, left, and Kenna Karst, are pictured at Uptown Bay City along the Saginaw River following their crowning ceremony held Friday, June 18, 2021, at Michigan Sugar Company's Corporate Headquarters.

Karst is a 2018 graduate of Frankenmuth High School and attends Ferris State University where she is studying architecture and sustainability. She is the daughter of Jeff and Sheri Karst, who grow sugarbeets for Michigan Sugar Company and are among the cooperative's nearly 900 grower-owners.

Wieland is a 2020 graduate of Pinconning Area High School and attends Saginaw Valley State University where she is studying nursing with hopes of becoming a nurse practitioner. She is the daughter of Tera and Martin Szeliga.

"Over the years, Michigan Sugar Company has been fortunate to find incredible ambassadors for our company through the Michigan Sugar Queen Scholarship Program and this year is no exception," said Rob Clark, Director of Communications and Community Relations at Michigan Sugar Company, who also oversees the scholarship program. "Ally, Kenna, and Raven are exceptional young women who have jumped right in to represent our company at a very high level at events throughout the state. They have just done an amazing job and our grower-owners and employees should be very proud of their efforts."

After being crowned this past summer, the Queen and Court Attendants began their year of service on Saturday, June 19, 2021, appearing in the Michigan Sugar Festival parade in Sebawaing.

The large crowd lining the village streets was very excited to welcome a hometown girl as the Michigan Sugar Queen — something that hadn't happened since McKenzie Reinhardt of Sebawaing served as Michigan Sugar Queen in 2016.

"All hail the queen," shouted one parade spectator as the Michigan Sugar Queen float passed by.

Kemp, Karst, and Wieland also represented Michigan Sugar Company at this year's Mackinac Island Fudge Festival, held Aug. 27-29, 2021. While on the island, the trio made fudge at Murdick's Original Fudge, helped unveil the official Fudge Festival flavor — Piña Colada — at May's Candy Shop, and toured Fort Mackinac, where Kemp had the honor of firing the fort's cannon.

The royal trio also has represented the company at the Montrose Blueberry Festival, Cheeseburger in Caseville Parade of Tropical Fools, Tuscola County Pumpkin Festival in Caro, and Croswell Santa Parade, among other events. They also volunteered at Camp Fish Tales in Pinconning, helping campers fish and play games, and took part in Michigan Sugar Day at the State Capitol in Lansing on Wednesday, Oct. 13, 2021, during which time they met with state lawmakers from the House of Representatives and Senate.

This year, Michigan Sugar Company received nine applications through its Michigan Sugar

## LEARN MORE ABOUT THE PROGRAM

@ [www.michigansugar.com](http://www.michigansugar.com).

Once there, click on the "Community" tab and then the "Sugar Queen" tab.

Queen Scholarship Program with five selected as finalists. Through the program, a Queen and two Attendants are chosen to serve for one year as ambassadors for Michigan Sugar Company. Their duties include public appearances, community service projects, interaction with lawmakers and agricultural leaders, and helping to represent the cooperative throughout the state.

After completing the requirements of the program, the Queen receives a \$2,000 scholarship and each Attendant a \$1,000 scholarship to be used to help pay for college. ■

**RIGHT** Members of the Michigan Sugar Queen's Court, from left, Raven Wieland, Kenna Karst, and Queen Ally Kemp, show off the different types of fudge found on Mackinac Island during the 2021 Mackinac Island Fudge Festival.



## CROWNING ACHIEVEMENT

Here is a look back at all the young ladies who have represented Michigan Sugar Company throughout the years as the Michigan Sugar Queen:



The first Michigan Sugar Queen was Mary Ann Hornbacher, top left.

1965 – Mary Ann Hornbacher, Sebawaing  
1966 – Judy Dressler, Sebawaing  
1967 – Connie Kunding, Sebawaing  
1968 – Becky Good, Gagetown  
1969 – Karen Krauss, Sebawaing  
1970 – Karen Gremel, Sebawaing

1971 – Renee Roller, Unionville  
1972 – Laura Shelter, Pigeon  
1973 – Debbie Richmond, Pigeon  
1974 – Janet Gettel, Sebawaing  
1975 – Connie Tamblyn, Elkton  
1976 – Kathy Gremel, Sebawaing  
1977 – Sharon Rase, Essexville  
1978 – Betsy Heinman, Sebawaing  
1979 – Wanda Rase, Sebawaing  
1980 – Lori Rase, Sebawaing  
1981 – Deadra Lynn Ballard, Fairgrove  
1982 – Jill Leipprandt, Pigeon  
1983 – Deann Balash, Bay City  
1984 – Debbie Smith, Caro  
1985 – Bernadette Voelker, Owendale  
1986 – Angela Heckroth, Unionville  
1987 – Barb Merchant, Cass City  
1988 – Shelly Sieman, Harbor Beach

1989 – Kelly Williams, Sebawaing  
1990 – Amy Horst, Sebawaing  
1991 – Vickie Holland, Unionville  
1992 – Kristy Adam, Unknown  
1993 – Janna Kunding, Sebawaing  
1994 – Nicole Longhini, Chesaning  
1995 – Rhonda Garza, Sebawaing  
1996 – Leslie Siefka, St. Louis  
1997 – Sarah Zagata, Sebawaing  
1998 – Julie Tolles, Pinconning  
1999 – Angela Roestel, Pigeon  
2000 – Kerri Dyhse, Harbor Beach  
2001 – Amanda Trischler, Unionville  
2002 – Jananie Schnettler, Munger  
2003 – Jackie Puvalowski, Ruth  
2004 – Brittney Maurer, Harbor Beach  
2005 – Stephanie Gremel, Bay Port  
2006 – Erica Hoffman, Lennon

2007 – Samantha Bishop, Kenockee  
2008 – Rebecca Doerr, Cass City  
2009 – Elizabeth Krhvosky, Corunna  
2010 – Dana Davidson, Fairgrove  
2011 – Kelsey Prohaska, Standish  
2012 – Taylor Janicek, Corunna  
2013 – Victoria Hudgins, Lapeer  
2014 – Isabella Krolkowski, Midland  
2015 – Riley Smith, St. Louis  
2016 – McKenzie Reinhardt, Sebawaing  
2017 – Kayla Ratajczak, Munger  
2018 – Paige Lupcke, Saginaw  
2019 – Channon Turrell, Imlay City  
2020 – Shaelynn Lavrack, Montrose  
2021 – Ally Kemp, Unionville

# Students Awarded Annual Scholarships

## ALBERT FLEGENHEIMER SCHOLARSHIP

**Sydney Richmond** of Bay Port is the recipient of the 2021 Albert Flegenheimer Memorial Scholarship. She also is one of three recipients of the 2021 Central District Scholarship. She is the daughter of Mike and Kelly Richmond. Sydney is a 2021 graduate of Laker High School and attends Ferris State University where she is pursuing a degree in pre-pharmacy with hopes of working one day as a pharmacist.

## NEXT GENERATION SCHOLARSHIP

**Matthew Ratajczak** of Essexville is the recipient of the 2021 Next Generation Scholarship. He is the son of Ronald and Barbara Ratajczak. He is a 2021 graduate of Bay City All Saints Central High School and attends Saginaw Valley State University where he is pursuing a degree in biology. He plans to go from SVSU to Ferris State University's College of Optometry with hopes of one day working as an optometrist in the Great Lakes Bay Region.

## CENTRAL DISTRICT SCHOLARSHIP

**TJ Bernia** of Akron, **Cole Hagen** of Bad Axe, and **Sydney Richmond** of Bay Port are the recipients of the 2021 Central District Scholarship.

**TJ** is the son of Andy and Georgie Bernia. He is a 2021 graduate of Unionville-Sebewaing Area High School and attends Delta College where he is enrolled in the Agricultural Technology Program and is taking classes to earn credits at Michigan State University.

**Cole** is the son of Clint and Melissa Hagen. He is a 2021 graduate of Ubly High School and attends Delta College where he is enrolled in the Agricultural Technology Program and is taking classes to earn credits at Michigan State University.

## MICHIGAN SUGAR EMPLOYEE SCHOLARSHIPS

**Bentley Alderson** of Cass City, **Brooke Beyer** of Munger, and **Ashlyn Meyer** of Hemlock, are the recipients of the 2021 Michigan Sugar Company Employee Scholarships administered through the Saginaw Community Foundation.

**Bentley** is the son of Mike and Carla Alderson. He graduated from Unionville-Sebewaing Area High School in 2021 and is pursuing a degree in biomedical science at Grand Valley State University. He plans to continue his education by attending medical school with hopes of working one day as a radiologist.

**Brooke** is the daughter of Jacqui Korpall-Beyer and Gerald Beyer. She graduated from Bay City Central High School in 2020 and is pursuing a degree in environmental science at Siena Heights University in Adrian, Michigan. She hopes to one day work in the field of conservation.

**Ashlyn** is the daughter of Ron and Shannon Meyer. She graduated from Freeland High School in 2021 and is pursuing a degree in microbiology at Michigan State University. She plans to attend veterinary school with hopes of one day working as an equine surgeon.



Sydney Richmond



Matthew Ratajczak



TJ Bernia



Cole Hagen



Bentley Alderson



Brooke Beyer



Ashlyn Meyer



## BRIAN FOX MEMORIAL AGRICULTURE SCHOLARSHIP

Jenna Delaey of Chatham, Ontario, and Gracie Goodhill of Watford, Ontario, are the recipients of the 2021 Brian Fox Memorial Agriculture Scholarship.

Jenna is the daughter of Jerry and Juliette Delaey. She is a 2018 graduate of Ecole Secondaire de Pain Court and is pursuing a degree in agriculture at the University of Guelph Ridgetown Campus. After earning her diploma, she plans to work for Kenna, representing BASF AgSolutions as an Agricultural Technical Advisor.

Gracie is the daughter of Brad and Dale Goodhill. She is a 2020 graduate of North Lambton Secondary School in Forest, Ontario, and is pursuing a degree in food and agricultural business with a cooperative from the University of Guelph. After graduation, she hopes to work in the finance side of the agriculture industry and apply her skills at her family's farm.



Jenna Delaey



Gracie Goodhill



Ellie Brown

## LOREN HUMM MEMORIAL SUGAR BEET GROWER'S SCHOLARSHIP

Ellie Brown of Wheeler is the recipient of the 2021 Loren Humm Memorial Sugar Beet Grower's Scholarship, administered through the Gratiot County Community Foundation. She is the daughter of Darren and Barbara Brown. She is a 2021 graduate of Breckenridge High School and attends Grand Valley State University where she is pursuing a degree in speech pathology. ■



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# Youth Sugarbeet Project In-Person Activities After

*By Jessica Carter, Ag Relations and Communications Coordinator*

## 73 KIDS TOOK PART IN PROGRAMMING THAT INCLUDED TOLEDO ZOO TRIP, FIELD DAY, AND AWARDS BANQUET

After a year-long hiatus due to the COVID-19 pandemic, Michigan Sugar Company's Youth Sugarbeet Project returned in 2021 to an in-person format with 73 children taking part in a variety of activities.

The program kicked off in June with a trip to the Toledo Zoo in Ohio where youth participants and their families were encouraged to enjoy the exhibits, aquarium, and lunch under the pavilion on a picture-perfect day. Everyone had a great time.

In July, Michigan Sugar Company's annual Field Day took place at the Saginaw Valley Research and Extension Center in Frankenmuth with about 65 youth participants attending. More than two

dozen Michigan Sugar Company employees and other sugarbeet experts led sessions during Field Day focused on weed identification, understanding sugarbeet diseases, sugarbeet harvesting equipment, and GMO labeling. The kids even got to learn about the layers of soil while making a sweet treat out of pudding, chocolate chips, and granola, among other ingredients.

After the morning sessions, the participants were interviewed by staff, tested on what they learned and were able to take a field tour in a limousine while Linda Hanson, Ph.D., a Research Plant Pathologist for the United States Department of Agriculture-Agricultural Research Service and Adjunct Professor at Michigan State University, discussed her research.

Following Field Day, participants were required to submit a report and a "Participants Project." Children in each grade level were given an age-appropriate, sugarbeet-related topic on which to report and — for the project portion — were given the option to complete a scavenger hunt, grow their own sugarbeets, or take sugarbeets to their county fair. These, along with participation points from Field Day, the test, and their interview, gave the kids the opportunity to compete for the Premier (highest points) and High Honor's (Top 20%) awards in their grade level and district.

The final Youth Sugarbeet Project event was the awards banquet, held Aug. 26, 2021, at the Brentwood Restaurant in Caro. Families gathered to enjoy dinner, a speech by Michigan Sugar



**ABOVE** Michigan Sugar Company Director of Ag Operations Tommy Bignall, left, and his family enjoyed their trip to the Toledo Zoo in Ohio in June 2021. The trip kicked off Michigan Sugar Company's Youth Sugarbeet Project programming for the year.

**BELOW** Michigan Sugar Company Director of Research and Agronomy Corey Guza teaches Youth Sugarbeet Project participants about various weeds sugarbeet growers could potentially see in their fields during a Field Day event held in July 2021 at the Saginaw Valley Research and Extension Center in Frankenmuth.





# Resumes a Year Away



**ABOVE** Michigan Sugar Company's Youth Sugarbeet Project Premier and High Honors award winners are, from left: **BACK ROW** – Eli Maurer, Audra Maurer, Henry Haag, Amanda Mossner, John Guza, Kason Volmering, and Eva Hecht. **FRONT ROW** – Owen Reibling, Walter Haag, Emma Guza, Liam Maurer, Aaron Kain, Ethan Yackel, and Levi Mossner. **BELOW** Other award recipients, pictured individually, left to right, are: **TOP ROW** – Anna Wendland, Alex Smith, Eric Spero, and Daniel Hudeck. **BOTTOM ROW** – Rose Spero, Abigail Guza, Lance Haag, and Nicholas Leen.

Company Executive Vice President James Ruhlman, and the announcement of program award recipients. Following the banquet, families were invited to enjoy a fun night of bowling.

Youth Sugarbeet Project officials greatly appreciate the support from all those who make this program a possibility, including this year's sponsors ACH Seeds, Betaseed, Seedex, and Hilleshög. ■



**Jessica Carter** is Ag Relations and Communications Coordinator for Michigan Sugar Company. She earned her bachelor's degree from Lake Superior State University in Sault Ste. Marie and joined the company in 2019. She lives in Munger with her husband and son.



**BELOW** About 65 Youth Sugarbeet Project participants joined more than two dozen Michigan Sugar Company employees and sugarbeet industry experts at the annual Field Day event held in July 2021 at the Saginaw Valley Research and Extension Center in Frankenmuth. Participants enjoyed a day of fun and education.





# Art meets Agriculture

## MICHIGAN SUGAR COMPANY, STUDIO 23 TEAM UP FOR UNIQUE PAINTING COMPETITION

By Rob Clark, Director of Communications and Community Relations



Barbara Plezia of Midland holds her winning painting titled "Schindler Centennial Farm" on Sunday, June 20, 2021, at Studio 23/The Arts Center in downtown Bay City. The painting was done at Schindler Farms LLC in Kawkawlin. With Barbara is Terry Schindler and his daughter Madison.

Agriculture and art came together in a sweet way this past summer as Michigan Sugar Company partnered with Studio 23/The Arts Center in Bay City to host a unique painting competition.

Dubbed the "Great Lakes Bay Region Plein Air Paint-Out," the event saw 16 Michigan artists create paintings from 8 a.m. to 4 p.m. on Saturday, June 19, 2021, at the farms of 10 Michigan Sugar Company grower-owners. It was all part of the Studio 23 Summer Solstice Art-a-Thon that concluded Sunday, June 20, with a public exhibit of the nearly two dozen works completed the day before.

"The Summer Solstice event was a very sweet way to introduce local farmers to local artists," said Tara Welch, Executive Director of Studio 23/The Arts

Center, located at 901 N. Water St. in downtown Bay City. "Each of them made a connection and were able to see their farms in a new light."

The paintings were judged by Michigan Sugar Company with cash prizes of \$600, \$300, and \$100 awarded to the first-, second-, and third-place artists, respectively. All the paintings were offered for sale at the public exhibit.

Barbara Plezia of Midland took home top honors for her painting "Schindler Centennial Farm," painted at Schindler Farms LLC, founded in 1897 in Kawkawlin. Farm owner Terry Schindler, who serves as a Director on Michigan Sugar Company's West District Board, said it was fun having an artist visit his farm, even though the weather that day was a bit dreary.

"Rain and wind," he said. "I think that presented a few challenges for the artists."

Schindler said he was very pleased with the results of Plezia's work.

*continued on page 58*



Elli Hennessy of Bay City holds her second-place painting titled "Sweet Home," painted on the farm of Dean and Donna Haubenstricker of Frankenmuth.







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Thomas Livingston Myers of Davison holds his third-place painting titled "Road from the Barn," painted on the farm of Terri and Duane Scheuerlein in Bay City.

"I saw the painting in its early stages when she was sketching it out," said Schindler, who ended up purchasing the painting. "Then, I saw it again at the reception on Sunday and thought it was really good. I'll probably hang it in my home office."

Second place went to Elli Hennessy of Bay City for her painting titled "Sweet Home," completed at M. Dean Haubenstricker Farms in Frankenmuth. Thomas Livingston Myers of Davison captured third place for his painting titled "Road from the Barn," done at L&M Scheuerlein Farms in Bay City.

"We actually had three different artists at our house that day," said Terry Scheuerlein, who owns and operates L&M Scheuerlein Farms with her husband Duane. "It was a great experience for everybody and it's really nice to see something you hold near and dear to your heart in someone else's painting. You could tell they really enjoyed what they were doing."

The Scheuerleins ended up purchasing the third-place painting by Myers and bought artist Vicki

Berry's painting titled "The Growing Season."

"We saw it during Sunday's reception, and it was in the corner on an easel all by itself and we thought, 'We're buying that one because it looks just like the farm,'" said Scheuerlein. "Both of the paintings are hanging in our living room. Tom's is so colorful and in an ornate frame and Vicki's is so simple and in a simple frame. To see the interpretation of two different people at the same place is pretty cool."

In addition to the top three awards, Honorable Mention went to Ruth Howell of Saginaw for "Helmreich Farms," painted at Helmreich Farms in Freeland; Rosemary Kavanaugh of Bay City for "End Wagon," painted at Schlicker Farms in Bay City; and



Alan Maciag of Midland for "Looking East," painted at Gerstacker Farms in Midland.

"The paintings that were created show the uniqueness and beauty of each farm," said Welch. "All our artists can't wait to have an opportunity like this again." ■

# Works of Art

*Twenty-three paintings by 16 Michigan artists were completed as part of the Farms of the Great Lakes Bay Region Plein Air Paint-Out held Saturday, June 19, 2021. Here is a look at the paintings and the artists:*

1. "End Wagon" by Rosemary Kavanaugh of Bay City. Painted at Schlicker Farms in Bay City.
2. "Helmreich Farms" by Ruth Howell of Saginaw. Painted at Helmreich Farms in Freeland.
3. "Looking East" by Alan Maciag of Midland. Painted at Gerstacker Farms in Midland.
4. "The Weathervane" by Alan Maciag of Midland. Painted at Gerstacker Farms in Midland.
5. "Schlicker Farms" by Angela Hamilton. Painted at Schlicker Farms in Bay City.
6. "Doors" by Lori Henderson-Bayn. Painted at L&M Scheuerlein Farms in Bay City.
7. "Changing Sky" by Misty Coss. Painted at Shaffner Brothers Farms in Freeland.
8. "Pink Roof/Red Barn" by Nancy Philo. Painted at Schlicker Farms in Bay City.
9. "Old Pear Tree" by Thomas Livingston Myers. Painted at L&M Scheuerlein Farms in Bay City.
10. "Maxwell Farm I" by Matthew Grimmer. Painted at Peter Maxwell Farms in Beaverton.
11. "Maxwell Farm II" by Matthew Grimmer. Painted at Peter Maxwell Farms in Beaverton.
12. "Beet Fields I" by Priscilla Olson. Painted at Meylan Farms Inc. in Auburn.
13. "Beet Fields II" by Priscilla Olson. Painted at Meylan Farms Inc. in Auburn.
14. "The Growing Season" by Vicki Berry. Painted at L&M Scheuerlein Farms in Bay City.
15. "The Red Bush" by Walda Juhl. Painted at M. Dean Haubenstricker Farms in Frankenmuth.
16. "Beet Farm" by Bruce Francke. Painted at G&R Van Driessche Farms in Bay City.
17. "Must Be No One's Home" by Dan Swaffer. Painted at Gerstacker Farms in Midland.
18. "The 290" by Walda Juhl. Painted at M. Dean Haubenstricker Farms in Frankenmuth.
19. "No More Pears" by Dan Swaffer. Painted at Gerstacker Farms in Midland.
20. "Big Wheels" by Elli Hennessy. Painted at M. Dean Haubenstricker Farms in Frankenmuth.







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