# PIONEER NEWSBEET Fil 204

# harvesting quality sugarbeets





*By Mark Flegenheimer, President and CEO* 

As I write this "Root of the Business" article the sugar industry in Michigan is on the verge of embarking on one of the most

important events in its 100+ year history. If the acquisition/merger of Monitor Sugar is completed, as scheduled, all sugar grown and processed in Michigan will be owned by the growers; thus giving the producers control over the destiny of this valuable crop. The combining of Michigan Sugar Company and Monitor Sugar Company will create the third largest beet sugar company in the U.S. which positions us to compete and prosper for another 100 years. I look forward to integrating these two entities into one of the premier sugar cooperatives in America. Michigan's fertile soils, normally abundant rainfall and geographic proximity to our customers gives us a solid foundation upon which to build the cooperative. In an industry where volume and throughput are crucial, the combining of these two companies provides the critical mass needed to survive in an ever-increasingly competitive industry.

The Board of Directors of both Michigan Sugar Company and the Monitor Sugar Beet Growers Association should be commended for their foresight and diligence in pursuing this acquisition. Have a safe harvest.

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#### **ABOUT THE COVER**

2003 sugarbeet harvest on the Vader farm in Tuscola County. See related article "Grower in the News: Vader Farms" on Page 28. Photo contributed by Doug Vader.



### LOOKING GOOD GOING INTO HARVEST



*by Robert Braem, Vice President of Agriculture* 

Each spring brings new enthusiasm for another crop and hopes for a bountiful harvest. Dry soil conditions in April allowed growers into their

fields early again in 2004. The majority of our 111,000 acres were planted by May 1st into very good soil conditions. Wet, cool weather soon followed, slowing farming activities during most of the month. Slower emergence and challenging weather conditions resulted in a lower plant population compared to previous years. Some areas were hurt by excessive rain and, on several occasions, most areas experienced high winds. Remarkably, replanted acres only totaled 5,200 and abandonment was less than 900 acres. Better growing conditions in June stimulated sugarbeet growth and most fields had filled in the rows by late June or early July. As with every crop, rainfall late in the year will be needed to achieve high tonnage.

In 2004, BeetCast was available to growers in the majority of our growing areas. BeetCast is a weather monitoring system and Cercospora leafspot model operated by the Ontario Weather Network (OWN). Remote weather stations located in beet fields monitor

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Growers first used BeetCast this spring to time micro-rate post-spray applications. Weed growth is dependent upon growing degree days (GDD) so growers watch the accumulation of GDDs to time the interval between spray applications. By using this technology, growers have controlled weeds effectively without injuring the sugarbeet crop.

The main purpose of BeetCast is to predict the onset of Cercospora leafspot and aid growers in determining when to spray fungicides. Most growers spray first when the model accumulates 55 disease severity values (DSVs) and then spray again at 110 to 130 DSVs. Research has shown, getting the first application on early provides the best control of Cercospora, leading to higher quality and tonnage. Now that we have BeetCast, we are able to document the wide range in climate experienced across our growing region. Documenting these climate differences resulted in some growers spraying later than others, depending on where their farms were located.

Research and more experience with the system will allow us to fine-tune leafspot spray recommendations in the future. Michigan Sugar has established plots and comparisons around the territory to look at spray timings. Results from these tests will help growers improve quality and increase their ability to use fungicides more efficiently.

As the crop grows into late summer, we are optimistic for a good harvest. Early pre-harvest samples averaged nearly 13 tons per acre and very close to our three year average. Our final pre-harvest sample averaged over 21 tons per acre, which is well above recent averages. Some fields are beginning to lighten in color while still increasing in size. All the efforts and innovations put into this crop by growers will soon bear "roots" in a safe and successful harvest.

### THE WASHINGTON SCENE



By Dick Leach, Director of Community and Government Relations

What a great

time of year! Summer is over and the sugarbeet crop is showing signs of maturity. Growers are planning their fall work schedules and machinery is being made ready for hard work. It is also a time when the August Primary is long gone and those nominated are busy trying to convince us that they can do a good job, if elected. Primaries are a very important part of our election process because it gives each political party the opportunity to nominate one candidate for each office. Our election system ensures that each candidate elected must receive over 50 percent of the votes for that office.

The November 2<sup>nd</sup> General Election is important to the sugar industry because the new 109<sup>th</sup> Congress will be elected. The 109<sup>th</sup> Congress will not vote on the next Farm Bill due to be passed by the end of 2007; however, it will play a part in its development. The new Congress could vote for or against many trade agreements, depending on who is elected as our next president.

President Bush said that he would not submit CAFTA (Central American Free Trade Agreement) to Congress until after the presidential election, stating that Congressional approval was unlikely before the November vote. What this means is that the coalition of labor, textiles, and sugar have enough House votes to defeat CAFTA. Things in Washington can change quickly and the President has the power to give away bridges, roads, and even congressional committee assignments, in exchange for a much needed yes vote. CAFTA may come up in a "lame-duck" session of Congress after the November election if President Bush can get the votes. If not, he will try it with the new Congress in 2005. If President Bush cannot get the votes, then he will need to renegotiate the agreement with the CAFTA countries.

I have said this before, and I still believe, that the sugar industry is the best organized commodity in the United States. Every sugar producing state has people working to defeat CAFTA. Our efforts are coordinated by an issues management group in Washington, D.C. To view some of their work, visit www.americansforfairtrade.org.

The grower-owners of Michigan Sugar Company purchased the right (and obligation) to grow 125,000 acres of sugarbeets. This acreage can be increased or decreased by the Board as deemed necessary each year. The 2003 crop produced a record amount of sugar (6.8 million cwt.) and an allotment to sell approximately 5.3 million cwt.; thus, we are forced to store sugar to be sold in the next marketing year. The Board of Directors reduced the acreage of the 2004 crop and we expect to harvest 111,000 acres.

This lower production will allow the Co-op to reduce the amount of sugar being held over.

On July 16, the USDA announced that marketing allotments would be in place for the 2004/2005 marketing year (2004 crop). The USDA also announced an OAQ (overall allotment quantity) for 2004/2005 of 8.1 million short tons. The market was expecting an OAQ significantly smaller (7.5 million on the low side: 8 million on the high side) because of below forfeiture pricing and oversupply under the current OAQ of 8.2 million and an uncertain demand trend. U.S. raw cane and refined beet sugar market prices are already deep within CCC sugar loan forfeiture ranges and an OAQ this unexpectedly large for next year will depress market prices further and increase the threat of sugar loan forfeitures this year and next. The sugar industry has hand delivered a letter to Agriculture Secretary, Ann Veneman, expressing great dismay for the announced 8.1 million OAQ, and asking her to withhold a large portion from allocation until the 2004/2005 market conditions are known.

Whether it is trade agreements, management of the sugar program by the USDA, or various other activities, there is no time for our industry to relax its activities in Washington, D.C. We have very capable people in our nation's capitol that will successfully guide us through these difficult times. Introducing the Art's-Way Model 6812 Sugar Beet Harvester

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### **BEETCAST:** A NEW APPROACH TO PEST MANAGEMENT



### By Corey Guza, Chief Agronomist

The Michigan Sugar Company grower board approved the

implementation of BeetCast for the 2004 through 2006 growing seasons. BeetCast consists of over 40 weather stations spread throughout the sugarbeet growing region and a team of weather specialists and pathologists from Ontario, Canada. Weather data, particularly temperature, leaf wetness, and rainfall are collected at each of the stations. This data is then transmitted back to Ontario for statistical analysis and interpretation. The information is then posted to the website www.michiganbeets. com. Growers and consultants can then use the information to manage weeds and the foliar disease, Cercospora leafspot.

Changes in environmental conditions can be used to predict plant growth rate and disease development. Sugarbeet and weed growth rates are closely linked to air temperature. Air temperature data expressed as growing degree days or GDDs can then be used to time herbicide applications to maximize weed control while minimizing sugarbeet injury.

Diseases can negatively impact plants prior to the appearance of visual injury symptoms. That is one reason to spray for Cercospora leafspot prior to seeing "spots." Cercospora leafspot development can by predicted using air temperature and leaf wetness. To make the relationship between weather and leafspot development easier to understand, the BeetCast model converts temperature and leaf wetness data to a disease severity value (DSV). A DSV can range from "0" to "4" per day. A "0" indicates conditions were not favorable for disease development and a "4" indicates conditions were optimal for the disease. Initial research in Michigan demonstrates that applying fungicides when 55 DSVs accumulate is the most economical application interval.

In the previous two growing seasons, BeetCast was only available in Ontario, Canada, and on a trial basis in Michigan. Research over the two years, indicated a high potential for increasing economic return from using BeetCast to help manage Cercospora leafspot. Growers can increase their return per acre in two ways. Either increased sugarbeet yield from improved leafspot management, or saving the cost of a fungicide application and attaining adequate leafspot control.

The Ontario Weather Network of Ridgetown College, University of Guelph, designs, repairs and maintains the BeetCast website and the weather stations in Ontario and Michigan. The cigarshaped leaf wetness sensor that sets the weather stations apart from others is an important factor in calculating a DSV. This sensor has also caught the attention of sugarbeet professionals in some of the western states. Fields for the weather stations were selected by the Michigan Sugar Company agricultural staff to represent the different weather patterns in the sugarbeet growing region. Along with the weather equipment, each of the weather stations has radio equipment that allows the Ontario Weather Network to attain weather data as quickly and accurately as possible from each of the sites.

Ian Nichols, the Ontario Weather Network business manager, describes the process of collecting weather data and posting a DSV on the website. "We start checking the data after the weather stations have reported in at 11:00 AM. If leaves are wet, we keep checking the stations. After 2:00 PM, if the leaves are still wet we create a cutoff for the day and calculate DSVs. Even if the leaves in your field are not wet, we can't produce the map until all areas are dry for the day. We also do some manual checks to make sure the devices are not sending errorsjust part of the procedure. As automated as all the internet stuff looks from the outside, there is a lot of checking going on in the background."

Overall, the BeetCast system has worked well in 2004. The Ontario Weather Network team has worked hard to post information quickly and maintain the weather stations. They also added rain buckets at no cost to each of the stations. Growers who have volunteered to have stations on their farms have done a great job of ensuring the sensors were placed properly and not damaged during field work.



Facing page—Top: Ontario Weather Network's patented leaf wetness sensor. Middle: Rain collection bucket for precipitation data. Bottom: Moisture on a sugarbeet leaf.

Above: Maps showing GDDs and DSVs for a day from the BeetCast website, illustrating the variability in weather conditions throughout the sugarbeet growing region.

Many growers enjoyed using BeetCast to help make weed and leafspot management decisions. Allan Sherwood, from the Carrollton district, used BeetCast to help schedule both herbicide and fungicide applications. "I follow BeetCast closely when making the decision to spray," says Allan. "We have a lot of acres to manage and BeetCast helps." Brian Karg and Brian Learman, both from the Croswell district, have followed BeetCast closely this season. "I tried to time my herbicide applications by following BeetCast. Although it was difficult to spray on time due to challenging weather conditions, it was helpful to have BeetCast as a guide," said Karg. Brian Learman stated, "I sprayed for leafspot every 55 DSVs using BeetCast. It

is difficult to decide when to spray and BeetCast helps with that decision."

There will be many opportunities to expand BeetCast and use the information collected by the weather stations in the future. The Michigan Sugar Company agricultural staff will use the detailed weather data to make more accurate management decisions about the sugarbeet crop. Mark Seamon, Michigan State University Agricultural Agent in Saginaw County, is exploring the idea of using BeetCast to try to predict disease development in other crops. He said, "The data collected by the weather stations could be used to assess the risk of scab development in wheat."

### MICHIGAN SUGAR COMPANY: RESEARCH UPDATE



By Jim Stewart, Michigan Sugar Company, Manager of Research.

A progressive

and continuing research effort is important to answer questions for sugarbeet producers now and in the future. The Michigan Sugar Company agricultural staff works hard to integrate information from many different sources as well as conducting a progressive grower targeted research program. In 2004, many of the same problems that growers have faced in the past continue to be problems and most likely will be in the future. These problems include weeds, disease and fertility. While these basic issues continue to be troublesome for growers, the approach and methods for solving these problems are new and innovative.

Time management and proper timing of pest management and fertility applications are critical for maximizing sugarbeet yield and quality. Proper timing will help manage pests more effectively and efficiently as well as ensuring nutrients will be available for sugarbeet growth and development. While difficult weather can ruin the best made plans, planning tools and decision aids can help growers make decisions quickly and accurately. Tools such as BeetCast, can help growers plan when to manage pests, saving time to complete the many other important tasks on the farm.

Michigan Sugar Company research in 2004 is focused on using BeetCast as a weed and Cercospora leafspot management decision tool. Along with BeetCast research, we are working with Sugarbeet Advancement to improve management of Rhizoctonia crown rot and "fine tune" nutrient recommendations. Finding a new Betamix formulation is a high priority, especially for our Ontario growers. In-furrow fertilizers, new pest management products and testing new sugarbeet varieties continue to be interesting and important research topics.

We are evaluating 35 varieties in our Official Variety Trials (OVT) at six locations this year. These are located on the Beet and Bean Research Farm, Corey Guza's farm near Fairgrove, Kundinger's farm near Bach, Brent Maust's farm near Bayport, Stoutenburg's farm near Sandusky and on Joel Weber's farm near Ruth. Nineteen varieties are the result of selective breeding for tolerance to Rhizomania.

The main purpose of OVT is to identify and approve for planting higher yielding, higher quality and more disease tolerant sugarbeet varieties for Michigan Sugar

MSU Research plots, 2004.



Company growers. All varieties are tested for Cercospora leafspot resistance and many others are being evaluated for Rhizomania, Rhizoctonia, Aphanomyces and Root Aphid tolerance.

Excessive rain this spring caused us numerous problems and weed control has been a challenge. However, the trials survived the wet spring in good condition and should provide us with valuable information.

The BeetCast Cercospora spray system is being instituted by Michigan Sugar Company this year and we are conducting an extensive research and monitoring program to evaluate its accuracy. Trials are located near Breckenridge, Saginaw, Quanicasee, Sebewaing, Ruth and Sandusky. In addition, your agriculturalists are also conducting side-by-side strip trials comparing the BeetCast model to a grower's normal Cercospora spray program.

We are also continuing research with Eminent for Cercospora leafspot control. The EPA has informed us that we must demonstrate that Eminent is necessary for controlling Cercospora leafspot in Michigan or we will not receive any more Section 18 labels for Eminent. Michigan Sugar Company data collected in 2003 demonstrated a definite need for including Eminent in our Cercospora spray program. Similar work is being done this year.

Several other Cercospora trials have been established to compare the effectiveness of Headline, Gem, Eminent, Topsin, Super Tin and Amistar. Other trials are investigating the safety of mixing the fungicides with herbicides, nutritional sprays, insecticides and crop oils.

We are also evaluating Amistar for control of Rhizoctonia root and crown rot. Several strip trials are being conducted with Amistar comparing application timings and evaluating reduced Amistar rates. Some of this work is a joint project between Michigan Sugar Company and Michigan State University.

A large portion of our research effort continues to be directed toward weed control. Several new issues are facing us including kochia, a new hard to control weed that is spreading across our growing region and the issue of isophorone in the Betamix formulation. Isophorone is a chemical that is on the "hit list" at EPA and in Canada. Our Ontario growers face the real possibility of having the Betamix label revoked for 2005, because the formulation contains isophorone. In Michigan, it appears that we have a few more years before isophorone will be banned. We have been conducting trials on isophorone-free Betamix formulations for several years and will continue this research until a viable isophorone-free Betamix formulation is identified. This is a cooperative research program involving Michigan Sugar, Bayer and MSU. Good progress is being made.

We are working in conjunction with MSU to determine the best



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Application should be conducted to not impact any water. A more detailed discussion can be found in the Generally Accepted Agricultural and Management Practices for Nutrient Utilization as approved by the Michigan Commission of Agriculture at the following internet address: http://www.michigan.gov/mda/0,1607,7-125-1567\_1599\_1605-70361-,00.html



### MICHIGAN SUGAR COMPANY: RESEARCH UPDATE

control measures for kocia. At this time, the infestations are small and localized. We would like to be able to eradicate it before it is too widespread. The only information about controlling kochia comes from the Red River Valley and other western sugarbeet growing regions. Several trials are in progress to determine the best control measures in Michigan. Much of our weed control work is being conducted in cooperation with Dr. Christy Sprague at MSU.

We are continuing to evaluate the safety and effectiveness of

Dual and Outlook for weed control in sugarbeets. Pre, early-post and late-post applications, as well as reduced and split rates, are being examined. This work is also being conducted in cooperation with Dr. Sprague at MSU.

Several other herbicide trials are being conducted including "generic" Betamix formulations from other suppliers, micro-rate growing degree day studies, pre and pre-plant incorporated applications of Eptam, RoNeet, Nortron plus Pyramin and Pyramin micro-rates. We also have trials designed to test different seed treatments which may protect sugarbeet seedlings from insects and diseases. Another trial is designed to compare insecticides applied at planting in-furrow for control of soil insects such as wireworms.

And finally, we are continuing cooperative research with Dr. Carrie Laboski again this year to determine proper nitrogen rates, timings and placements. Carrie is leaving the University this August, but the work in progress will be completed.

### 2004 SUGARBEET ADVANCEMENT RESEARCH TRIALS



By Steve Poindexter, Sugarbeet Extension Agent, Michigan State University

Each year, the Sugarbeet Advancement committee establishes the research agenda for the Sugarbeet Advancement efforts. This agenda is based upon current production problems and/or concerns. The goal is, find practical solutions that will increase productivity and profitability. Most trials are established in grower's fields using the grower's equipment. These trials are replicated and harvested with commercial equipment. This year's efforts have established 20+ trials for harvest. Trials include: variety, fertilizer and disease management. A brief summary of the trials and any preliminary observations are as follows:

**VARIETY** testing has become one of the mainstays of SBA efforts. On-farm testing allows growers to have a first look at new, approved varieties, how they react, and yield under grower management and disease situations. Choosing the right variety is the foundation for successful beet production. Five variety trials with 11 varieties each were established. Preliminary observation is showing a significant difference in Rhizoctonia resistance and emergence. The best emerging variety averaged 77% emergence compared to 44% for worst.

**IN-FURROW FERTILIZER** has become common in our beet growing area. Our research is looking at the effect of three to five gallons of in-furrow fertilizer on emergence, plant vigor, and yield. If we can achieve more leaf area sooner, more sunlight can be collected and more sugar produced. Under our high phosphorus soil conditions, we have seen little visual effect of in-furrow fertilizer applications. We have noted in some trials an improvement in early season growth with 30 to 40 pounds of nitrogen placed in a two-by-two band. Three in-furrow trials were established in 2004.

**NITROGEN** management is still the largest, single, controllable factor for improving quality of sugarbeets. We have established five trials with different rates of side-dressed nitrogen. Our goal is to optimize yield and quality through proper nitrogen management. Currently, visual differences are being seen between treatments. Past experience indicates that the sugarbeets with the most foliage do not always produce the most Recoverable White Sugar per Acre (RWSA).

**RHIZOCTONIA CROWN ROT** is still a leading cause of stand and yield loss in Michigan. Managing Rhizoctonia can be achieved through resistant varieties, cultural practices and chemical control. The fungicide Amistar can be quite effective for managing Rhizoctonia. Research this year includes four trials examining crop rotation, variety tolerance, and Amistar rates and timings. Developing the most profitable system for Rhizoctonia control is the goal of this research. Visual differences were seen very early between some of the treatments. Amistar applied in-furrow did slow down plant emergence in 2004.

**CERCOSPORA LEAFSPOT** control is absolutely critical for high yields and quality sugarbeets. With the advent of BeetCast, more timely applications of fungicides will be very beneficial for producers; however, there are always questions on how long we should continue applications into fall. Three trials are being planned that will look at applying fungicides later in the season and/or one more application than the grower normally would apply. Trials will be harvested and analyzed for improved quality.

**FOLIAR FEEDING NUTRIENTS** has become more popular in hopes of maximizing yields. One foliar feed trial has been established to measure the effects of a complete fertilizer and manganese compared to no foliar feed. These trials will be important for assessing the value of applying foliar nutrients.

As you can see, we have a lot of research in on-farm trials this year. We will be reporting our findings and results at area meetings this winter. As soon as the dates are set we will be mailing notices to you. We look forward to seeing you there.



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Michigan Sugar Company Michigan State University Sugarbeet Advancement Michigan Sugar Growers

Sunrise over the Gilford Beet Receiving Station

To learn more about the topics discussed in this issue, follow the links from our website www.MichiganSugar.com (Links > Agricultural Links).

# arvest

harvesting quality sugarbeets



### HARVESTING FOR QUALITY



### By Robert Braem, Vice President of Agriculture

Delivering a sugarbeet crop timely, free of tops, dirt and trash is a critical first step in the beet processing season. Clean beets

keep better in long-term storage and allow for more efficient factory processing.

### DEFOLIATION

This first step in sugarbeet harvest is as important as lifting or delivery. All petiole material should be removed to reduce impurities and improve storage. Grower sugar content can be reduced significantly if poorly topped beets are delivered.

Research from the University of Minnesota shows that defoliator ground speed has a significant effect on sugarbeet quality. Sugar content, sugar loss to molasses and the resulting recoverable sugar per ton (RWST) all improve as ground speed is reduced. The research documented, for each one mph decrease in speed, average sugar content increased 0.25% and RWST improved by seven pounds per ton (see Table 1).

Growers must be sure to properly maintain their defoliator throughout the harvest season. Be sure to inspect and replace worn or broken flails.

Under some extreme conditions, such as post frost, high weed population or diseased fields, growers must take additional steps to remove tops. Some growers have run stalk choppers or shredders over the canopy to grind weeds and remove most of the leaves. To remove the remaining petioles, follow up with a defoliator. Others have gone over their beets twice with a defoliator. After a significant freeze late in the year, tops become difficult to remove. Growers have had the best results defoliating early in the morning if there is a frost. Contact your Michigan Sugar Company agriculturist for recommendations.

Sunset over grain bins surrounded by sugarbeets on a Bay County farm.

#### HARVESTING

Lifting clean beets, free from tops, dirt, trash and foreign material improves efficiency, both in the receiving yard and factories. In recent years, growers have reduced tare using grab-roll harvesters. Reducing harvester speed allows the cleaning area to remove more dirt and pull through more weeds. Running the lifter wheels as shallow as soil conditions allow can greatly reduce the amount of soil that needs to be removed.

Reducing the amount of dirt and trash loaded into trucks in the field can improve unloading time at the receiving station. Pilers run more efficiently and place cleaner beets in the pile. The end result is piled sugarbeets that can remain in good condition for long-term storage and provide the best raw material for successful factory operations.

#### HARVEST TEMPERATURES

Simply put, harvest is always dependent on temperature. During early delivery, soil and beet temperatures are high and the beets harvested must be processed within 7 to 10 days. Near October 15<sup>th</sup> in Michigan, the weather usually cools enough for beet temperatures to fall below 52° F. Under these conditions, permanent piling begins and beets harvested can be stored for extended periods.

Unfortunately, our weather is not constant and temperatures from October 15 to the end of harvest can vary from the 20s to the 70s. If beet temperatures rise above 52° F, harvest must be stopped until temperatures fall. \*

### **Main Effects of Defoliator Ground Speed**

Defoliator Speed (MPH)	Sucrose (%)	SLM* (%)	Recoverable Sucrose (lb/T)		
2.0	19.66	1.62	360.7		
3.0	19.40	1.70	353.9		
4.0	19.12	1.81	346.0		
5.0	18.90	1.85	340.9		
* Sugar Loss to Molasses.					

University of Minnesota research showing how decreasing defoliator speed can increase sugar content and recoverable sugar.



Our biggest problem with heat occurs when overnight lows do not fall below 50° F. Under these conditions, beet temperatures may not fall to 52° F and remain above that critical point, even before noon. Growers can help when temperatures rise during the day by not defoliating too far ahead of the harvester. Leaving foliage on keeps soil and beet temperatures significantly lower.

On the other end of the temperature scale, frozen beets can occur. Your cooperative cannot receive and pile frozen beets for long-term storage. When temperatures are predicted to fall below 30° F, harvest will be shut down.





TABLE 1

Growers must not defoliate ahead to ensure that all defoliated rows are harvested prior to shutting down. Those rows with foliage covering the crowns will not freeze as quickly or severely; thus, they can be harvested much sooner the next day. Grower cooperation in the event of a freeze will allow the agricultural staff to start up harvest at the earliest possible time.

Defoliating, lifting and temperature are critical to a successful harvest. By performing each harvest task well, and under the right temperature conditions, our factories will have the best raw materials for an efficient and profitable processing season.

### HARVEST PREPARATION: GET THAT DEFOLIATOR READY TO GO!



By Dennis Montei, Agricultural Manager, Sebewaing District

### WELL-TOPPED SUGARBEETS-THEY PAY BIG DIVIDENDS

Complete leaf and petiole removal is the first step in the harvesting process. A clean crop of sugarbeets delivered to your local factory is much more suitable for sugar extraction and long-term storage; however, like any step in your farming practices, it requires attention to the details. With a proper pre-harvest inspection of your defoliator, you will be able to deliver clean beets, with lower tare, and improve your sugar content and tonnage.

Defoliating beets ahead of the harvester is a very important part of your bottom line. A defoliator's performance is very dependent on the person operating the machine. The operator needs to regulate ground speed, adjust the height of the defoliator, and keep the machine on the row. Conditions vary from day to day, field to field, and hour to hour. It is important to adjust the defoliator frequently. Operating at slower ground speeds (3 mph) will result in a better defoliation job. Pay attention to the details; it will pay big dividends with improved sugarbeet quality.

An Alloway sugarbeet defoliator courtesy of the Farm Depot in Fairgrove.



sudarbeet



### A defoliator requires maintenance, just like any other type of equipment. Important items to check before you head to the fields:

- 1) Inspect all bearings and make sure they are not spinning inside of the bearing cage.
- 2) Check wheel bearings and tighten, repack, and replace seals.
- 3) Pay attention to gear boxes:
  - leaking oil-replace seals
  - check color of the oil-if milky or foamy looking, check for cracked housing
- 4) Inspect any drop boxes with chain drives:
  - leaking oil-replace seals
  - check condition of chain
  - adjust chain for tightness
- 5) PTO shaft:
  - make sure it is straight
  - check U-joints
- 6) Overhaul the pivot point on the defoliator hitch:
  - pivot ball should be tight in its socket
  - use proper size hitch pin or hitch bolt
- 7) Check rubber paddles and the paddle shafts:tighten paddle cluster to the drum
  - · check paddle pins and pivot points
- 8) Inspect drive belts for cracks.
- 9) Check pulleys for alignment and wear.

- 10) Check tire pressures and make sure wheels are set to the correct row spacing
- 11) Inspect paddle clusters for correct row spacing settings
- 12) Check for mainframe cracks
- 13) If equipped with a hand jack for making adjustments, make sure it operates freely. Lube if necessary.
- 14) Inspect hydraulic cylinders:
  - for leaks
  - pinched hoses
  - pitted rams (will ruin seals)
  - bent rams
  - pins and keepers
- 15) Check defoliator lift system for:
  - stress cracks
  - lubrication
  - wear
- 16) Ensure all safety systems are in place and working properly:
  - PTO shields
  - · belt or chain guards
  - slow moving signs
  - tail lights
  - reflective tape
- 17) Read the operator's manual

### Adjust and maintain your defoliator. As a grower-owner, you share in the benefits of quality beets that store well, thus yielding more sugar to put into the bag.





### COMPUTERIZATION OF GROWER DELIVERIES AND ACCESS TO CONTRACT INFORMATION

### By Christine Dunham, Director of Management Information Systems

When delivering beets this harvest, you will notice some changes in our scale houses. Instead of using the pre-printed paper tickets to record weight information, the scale operator will be using a computer and printer. Completing this project has been one of the tasks of the Management Information Systems Department.

The Management Information Systems Department, or MIS Department, is responsible for supporting all (non-engineering) computers, hardware and software at Michigan Sugar Company. Our department's primary focus is to use new technology to provide accurate and timely information while reducing costs.

Changing the manual method of weighing beets into our receiving stations is a larger project than it may seem. Last summer, the MIS Department developed a software program for the scales, and a pilot was launched for Harvest 2003. This pilot was run primarily in Dover, Canada; however, it was also implemented in Carrollton during the last couple of weeks of harvest. During that time, we received approximately 10,000 grower loads through the computer, as well as processed all of Dover's transfer loads to the Croswell factory. During the pilot, we were able to lay the foundation for computerizing all scale houses at Michigan Sugar Company. As a result, earlier this year, the Board of Directors approved a capital project to



computerize a majority of our beet receiving stations' scale houses.

Computerizing each scale house has been a large undertaking for the MIS Staff. Before harvest, 25 computers, printers and barcode scanners will be installed into the scale houses and tare data entry locations. In addition to installing the required hardware, the MIS Department has programmed the software. Developing the software, in house, was necessary to ensure the program performed to our needs and expectations. This year, our goal to computerize beet receiving stations include: Sebewaing, Caro, Croswell and Carrollton factory locations, as well as Albee, Blumfield, Breckenridge, Dover, Gilford, Meade, Ruth, Sandusky and Verona. Next year, the intention is to computerize the remaining receiving stations: Blissfield, Fremont, and Greenville.

There will be some noticeable differences at the receiving stations this harvest. The Ag Department will issue paper cards, replacing the plastic grower cards. These cards will contain a barcode embedded with your contract information. When weighing in, the scale operator will use the new paper card, and the weight information will be stored in the computer. At that time, a tare card with a barcode also will be printed. When weighing out, a receipt will be provided. The tare information will be entered using a barcode reader, and minimal manual entry. At the end of each day, all information will be transmitted from the scale house to the General Office, where it will be processed into the main database and loaded into our existing system.

Ultimately, the benefits of computerizing scale and tare operations will be a direct reduction in beet receiving costs as well as provide the ability to report information back to you in a timely manner. Previously, because all scale and tare information was captured on a paper ticket, it had to be transported to a central location and manually entered into the computer system. This required all tickets be delivered to the General Office in Saginaw, where a staff of temporary data



Grower login screen

entry personnel entered the information. Each year, an area was set up by the MIS Department for data entry. Equipment consisted of a computer server and 25 data entry terminals. Each terminal needed to be tested to confirm it was ready for use. Since this equipment is old, some of it would need to be replaced as it is no longer operational. Replacing and maintaining outdated legacy equipment is costly because suppliers are few. In addition, managing a staff of 25 temporary data entry personnel becomes a significant priority for one full-time Michigan Sugar employee. This year, we are planning to utilize one full-time temporary person to assist one full-time Michigan Sugar employee.

Additionally, the Michigan Sugar website now has a secured area where you can view information pertinent to your contracts only. Keep in mind, this information is protected, and can only be accessed with a login and password. Within a couple of days of delivery, the weight and tare information will be available for viewing on the website. After laboratory information is processed, it will also be available on the website. For those who wish to use the website, you will no longer need to contact Michigan Sugar personnel to receive this important timely information.

These changes will bring some challenges, but I am confident that with these improvements we will reduce costs and increase efficiency in our beet receiving process. Currently, all efforts are being made to ensure a smooth transition to this new system. I look forward to a successful implementation and the satisfaction of knowing this system will be used for many years to come.

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Michigan sugarbeet grower. Dow AgroSciences is passionate about agriculture and is continuously investing in research and development to help bring new and better technology to the market. Your support of Dow AgroSciences products helps develop the tools for tomorrow.







### FINANCIAL RATIOS... TOOLS USED BY OUR BANKS



Denis Boissonneault, Chief Financial Officer

In past articles, we discussed the various sections of

our financial statements in detail. We also reviewed what an audit of our financial statements consisted of and the importance of obtaining a "clean" opinion from our auditors. All of this information is required by our banks annually, so they can keep up to date with our operations as well as review our progress from year to year.

Financial statements have long been used for estimating financial ratios that measure liquidity, profitability, risk and leverage. When banks look at the balance sheet and income statement, they use ratios to assess the numbers. It is important to remember that when using financial ratios to assess the overall financial stability of a company, more than one ratio needs to be considered when formulating an accurate assessment. Financial ratios generate powerful information to banks and are used in comparisons with other companies, competitors and within an industry.

There are basic ratios that are used in evaluating the financial strength of a company and they focus on several different areas. A major ratio used is the current ratio (current assets/current liabilities). A company's ability to maintain its short-term debt-paying ability is important to all users of the financial statements. If a company cannot maintain a short-term, debtpaying ability, it will not be able to pay its long-term debt. It is safe to assume that current liabilities will be paid with cash generated by current assets. Short-term liquidity risk arises primarily from the need to finance current operations. To the extent that the company has to make payments to its suppliers before it gets paid for the goods and services it provides, there is a cash shortfall that has to be met, normally through short-term borrowing. Though the financing of

Financial statements... measure liquidity, profitability, risk and leverage.

working capital needs is done routinely in most companies, financial ratios are used to track the extent of the company's exposure to the risk that it will or will not be able to meet its short-term obligations.

Another useful ratio is leverage (long-term debt/total net worth). More equity is retained and fewer assets are financed through debt. A company must analyze and determine how it will be able to "service" or pay all of its external debt. A cash flow analysis is provided to the banks, forecasting the cash needs of the company. Banks not only need to be sure that any loans they provide are properly collateralized, but that the company will generate an adequate cash flow to repay its current debt.

There are many other ratios used to examine the strength of a company. Detailed ratios focusing on specific areas are calculated by the bank's financial analysts in their analysis. Days outstanding of our accounts receivable, the amount of interest paid in relationship to our assets, and the amount of debt to income are a few of the areas a bank may focus on. All of these ratios assist the bank in determining the strength of the company and the amount of debt they feel the company can service.

Financial ratios can also be used in managing a company by providing a check on the performance of assets and a warning as to potential areas of risk. Combining these ratios with an economic analysis of production costs and the cost of operations should provide management with an excellent basis to make future decisions. As with many other tools, however, ratios do not guarantee success, but use of them will certainly improve the probability of success.

There are many types of financial ratios used in evaluating a company's financial information. Being able to effectively interpret this information is useful and desired by our bankers. Trends are monitored to evaluate the success of a company as well as identify any potential future problems.

The relationship with our bankers is an important one! They are our partner in that they provide us the debt we may need, both in the short and long term, to adequately fund the operations of our business. We all work to the common goal of success. The understanding and use of these ratios contributes to that goal.



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### SUMMER 2004 FACTORY REPAIR AND IMPROVEMENT PROJECTS



*By Herb Wilson, Vice President of Operations* 

It has been a busy summer at the factories. In

addition to the repair programs, Michigan Sugars' Board of Directors approved over \$4 million in capital improvement projects. These include modifications to the process to improve reliability, new systems to improve factory efficiency, major building repairs, safety upgrades, fire protection, more accurate analytical equipment and environmental upgrades. Here are some of the highlights:

 At Caro, the lime system associated with juice carbonation is being modified to allow better control of the purification step. The floor of the pelleting station was replaced and new safety features have been added to ensure safe truck loading.

- At Croswell, a new building has been constructed to house a larger beet washer and a new beet chip recovery system. This will eliminate additional non-sugars from entering the process and allow us to recover more of the small beet pieces for sugar extraction and by-product production.
- Carrollton has improved the safety of truck loading with new "dock lock" systems and also performed major repairs to parts of the buildings. The Carrollton warehouse now has a fire sprinkler system that will ensure a higher level of protection and lower our insurance premiums.
- Sebewaing has installed a larger pre-liming station to match

their slice rates. This will allow improvements in carbonation and filtration. A new heat exchanger replaces a worn out unit and will improve energy efficiency. Truck loading safety has been upgraded as well.

 Repairs around the company this year included several large jobs such as re-tubing evaporators, replacement of an evaporator bottom, beet washer overhauls, lime kiln and boiler repairs, pulp drier ductwork replacement, the fabrication of new syrup tanks, vacuum and pressure filter shell replacements and various roof repairs.

Time has gone by fast. We are anxious to get the new season underway and experience the benefits of all this work.

Clockwise from top left: Carrollton's sugar warehouse with sprinklers, Croswell's beet washer, Caro's lime maturation tank/piping, and a new bottom for one of the evaporators in Carrollton.



Croswell beet pump.

Evaporator retubing at Sebewaing. Croswell beet washer building. Sebewaing pre-limer.

10

Caro pellet mills and floor repair.

### ETHANOL AND MICHIGAN SUGAR CO.



By Jim Ruhlman, Vice President, Administration

Is Ethanol production within the realm of possibility for a sugar company? Preliminary studies and intuition tell us it could work.

Over the past several months, Michigan Sugar Company has explored the possibility of utilizing assets at our Fremont, Ohio, location for the production of ethanol. The concept came about during a Board meeting last summer when the management team was advised to pursue the potential. This concept was followed by an application and acceptance of a Value Added Development Grant, which was eventually followed by the appointment of a steering committee. Loren Humm, Committee Chairman (Carrollton District), Wayne Hecht (Caro District), Richard Maurer (Croswell District), and Bob Lutz (Sebewaing District) serve on this committee along with members from our management team.

As with any new business venture, much of the success lies with whom you chose to partner. We believe we have chosen partners who are among the very best in the ethanol industry. We selected BBI (Bryan and Bryan International) to conduct the feasibility study. BBI has conducted more independent ethanol feasibility studies than any other company in the country. We have agreed to terms in a Letter of Intent with a reputable ethanol construction company; Fagen, Inc. Fagen has an incredible track record for success and has built more than two thirds of all ethanol plants in the U.S. over the past two years. We have also hired a consultant, David Kolsrud, who has first-hand experience in putting ethanol companies together. The Fagenbuilt Badger State Ethanol Company is Mr. Kolsrud's most recent ethanol

venture and it has enjoyed favorable returns since they began production in October of 2002.

The feasibility study conducted by BBI shows a phenomenal rate of return for the Fremont location. The Fremont area has an abundant corn supply and has strong local markets for ethanol and co-products. When you couple this with its current infrastructure of rail, water and utilities, Fremont offers a tremendous strategic location.

Michigan Sugar Company's involvement in the ethanol industry

The proposed plant in Fremont would produce 50 million gallons of ethanol, annually, requiring 18.75 million bushels of corn.

would be threefold. First, we would offer existing assets in Fremont as our equity investment in the new company. Our Board has made it imminently clear to us that our involvement in an ethanol venture should not jeopardize the equity in our existing Cooperative; therefore, we will limit our financial exposure to the offering of physical assets. Secondly, we will leverage our relationships with financial institutions and government officials to help finance the transaction and secure financial aid. Thirdly, our Cooperative will serve as a conduit to allow growers to invest in the new company. Having said this, we will need to partner with other investors in order to raise the necessary equity to start construction. Our Board of Directors has made the prudent

decision to limit our financial exposure, yet offer our physical and intangible assets as our contribution to the new company.

The ethanol industry has shown tremendous growth over the past few years with more than 80 plants now in production with capacity to produce almost 3.5 billion gallons of ethanol annually. The success rates of those recently built are impressive! Some reporting ROI figures in the 25–35% range. The technology is mature and proven and the industry is profitable.

The proposed plant in Fremont would produce 50 million gallons of ethanol, annually, requiring 18.75 million bushels of corn. Approximately 167,000 tons of a co-product called distillers grain (crushed corn without starch) would be sold for livestock feed in the immediate Fremont area. It is estimated that 33% of the ethanol produced in Fremont could be sold locally, 47% regionally, and the remainder would be shipped to the East Coast. As stated above, Fremont is strategically located close to raw material (corn) supply and finished product markets.

We have a lot of things in place; a favorable site, reputable business partners, and strong relationships with banks and government officials. It now comes down to cash. In the upcoming months we will decide on our business structure and come up with an offering memorandum for grower and non-grower investors. If we raise the required equity, we will be in the ethanol business.



### CALVIN RHOADES –A SOUTHERN MICHIGAN GROWER



By Don Steinberger, Agriculturist, Carrollton District, Blissfield and Fremont Stations

There is a little place in Southern Michigan called Ottawa Lake. One of the residents is a man by the name of Calvin Rhoades. Calvin has lived in the area all of his life and began raising sugarbeets in 1985. When the Michigan Sugar Company Cooperative was being formed, Calvin purchased 65 shares and became a grower-owner. Along with his own farm, Calvin works for Creaque Farms where he plants, sprays, and harvests over 3,000 acres of grain each year.

Calvin plants beets at a four-inch seed spacing, in 30-inch rows, with his John Deere Model 7000, 12/row planter. After the beets have emerged, he side-dresses with nitrogen at a rate appropriate for the number of established plants. For a good stand, he will side-dress an additional 70 to 75 pounds of nitrogen. Calvin says, "The nitrogen needs to be available for beets when they are small. So I like to have side-dressing done as close to May 15 as possible."

For weed control, Calvin cultivates and sprays post-emergence herbicides. He likes three cultivations. "Some people say you don't need to cultivate, but the beets look better when I'm done," he says. He broadcast sprays with Betamix and Stinger the first time. Successive treatments are accomplished with a ten-inch band sprayer with

whatever combination of herbicides is required for the weeds present. What he likes about broadcasting the first spray is that it allows more time for him to finish planting other crops for Creague Farms before he needs to be back to spray his beets the second time. He uses insecticides only if needed. He applies the fungicide Amistar when beets are in the six- to eight-leaf stage to help control Rhizoctonia and follows with Eminent for Cercospora leafspot. All of this seems to work for Calvin. It is not unusual for his beets to yield close to 30 tons per acre and have sugar contents better than 18 percent. Calvin uses a six-row

Alloway harvester equipped with a grab roll cleaning bed using scrubber chains to elevate the beets and defoliates with a six-row Alloway all rubber defoliator. Since the Blissfield receiving station is so far from the processing plant, harvesting beets that will keep well during storage is critical. Beets need to be properly defoliated, handled carefully, and harvested in the correct temperature range. Calvin states, "I carry a thermometer and if the beets get above 55 degrees F, I call my agriculturist for guidance. If frost is visible, I do not harvest. We have to work very closely with Michigan Sugar since we are so far away from



Calvin Rhoades next to his tractor in his sugarbeet field in Lucas County, Ohio.

the processing plant. It is their job to help us get the best crop into storage for the long period." Calvin also does custom harvesting and usually harvests about 425 acres of sugarbeets per year.

Calvin's main hobby is collecting two-cylinder John Deere tractors. He currently owns and uses some on the farm. Studying the history of locomotives and trains, in general, is another one of his passions. Some of Calvin's other activities include; the Ottawa Lake Volunteer Fire Department, the Ottawa Lake Co-op Board of Directors, or the Ottawa Lake Zion Lutheran Church Council.



### Invitation to all Beet Growers:

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-Take HWY 402 to exit 25 Oil Heritage Road and turn right (south) -At lights turn left ( east ) on HWY 7

-Drive for 9 miles, cross the 402 to Warwick Village Road -Turn south on Warwick Village Road

-Field is at end of road on east side

#### Demo is from 10 am until 4 pm Lunch and refreshments available



### **VADER FARMS**





By Craig Rieman, Agriculturist, Sebewaing District

Welcome to the corner of M-25

and Bradleyville Road, in Tuscola County. This has been the location of Vader Farms, Inc., for three generations. Grandfather, Neal Vader, started out with "two 80s" of land. with about 135 acres tillable. Today, between Bud (Don) and his wife, Jennie, their son, Doug, and his wife, Vickie, they own 2,000 of the 3,200 acres they farm. Bud has always remembered having sugarbeets on their farm for the 63 years he has been farming, but now, at 77 years young, he helps by running for parts, running equipment from field to field, or whatever is needed. Since incorporating in 1995, Bud's son, Doug, now takes care of the management and daily farm operations. Doug started farming full time right out of high school in 1970.

Row crops are planted with a 12-row, 30-inch John Deere MaxEmerge 2 vacuum planter using starter fertilizer. They apply most of their fertilizer in the fall and then side-dress nitrogen according to established plant populations. This year, they are trying variable-rate fertilizer applications based upon GPS grid soil sampling on 1,000 acres. "Time will tell if this works," said Doug.

Doug uses a four- to five-year rotation on his 800 acres of beets, generally following corn or wheat. The Vader's have observed that planting sugarbeets after corn has reduced the amount of Rhizoctonia crown rot. Doug is also raising some of his own oil-seed radish seed. He will plant this in the fall for plow down on this past year's wheat fields where beets will be grown next year. Doug also believes in BeetCast and supports it as a tool for timing spray applications for Cercospora leafspot control. When it gets close to 55 DSVs, he just starts spraying. "It pays to follow the BeetCast model."

In 1979, Bud purchased some ground that had some "beet acreage history" from a Monitor Sugar Company grower. Since then, they have grown 350–400 acres per year for Monitor Sugar Company and 440 acres for Michigan Sugar Company.

Doug's operation also includes his sons. Davis and Dan. Dan joined the team full time in 2001 and Davis loves helping out when he comes "home" from the Chicago area, where he works as a transportation specialist. Jack Turschak joined the farm operation as an employee in 1982. Jack is also a grower-owner raising 35 acres of beets for Michigan Sugar Company. Also a part of the team is Doug's wife, Vickie, who handles all the farm accounting and excels at operating one of the defoliators during harvest. During harvest, they operate two six-row harvesters; one Art's-way and one Parma, and two six-row Alloway defoliators.

Doug does the crop marketing with some assistance from a consultant for the food-grade soybeans and wheat. They also have storage for 105,000 bushels of grain on the farm with an additional 25,000



Left to right: Doug, Vickie, Dan, Don Vader, and Jack Turschak

bushels off the farm, which is used for mostly corn. Sixty percent of their corn goes to the ethanol plant in Caro, Michigan. Their other main rotational crop is dry-edible beans, which completes their cash crop operation.

Doug is an active member in Michigan Sugar Company, serving on the Sebewaing Grower District Board and Seed Committee. Doug and his team believe in Michigan Sugar Company and they look forward to the future when Monitor Sugar Company and Michigan Sugar Company are combined into one grower-owned cooperative. Doug believes it is the common sense thing to do.

The Vaders belong to the Wisner United Methodist Church. They enjoy traveling, boating and camping, as time permits. They also enjoy theatrical plays and musicals.

So, if you're driving on M-25 and get to the corner of Bradleyville Road, just turn into the farm drive and you will be welcomed in by Bud, Doug and the rest of the team for a very friendly visit.

### 4-H & FFA SUMMER EDUCATIONAL TOUR

This year's summer event for 4-H and FFA took us to Greenfield Village and the Henry Ford Museum in Dearborn, Michigan. School buses and individual vehicles left early in the morning to arrive at Greenfield Village by 9:30. In total, there were 140 people representing the different Michigan Sugar Company growing areas. These individuals included participants, 4-H leaders, parents and agricultural staff. The group received tickets, provided by Michigan Sugar, to both the village and museum.

Most participants walked the village in the morning before the sun warmed things up in the afternoon. The largest crowd seemed to be around the Thomas Edison laboratory and its other facilities. Many old buildings from around the United States have been brought into the village to illustrate how our famous ancestors lived in those days.

Most everyone visited the museum in the afternoon. The younger generation enjoyed the history of transportation and learning about the way of life previous generations had as they grew up.

By mid-afternoon, everyone boarded the buses and cars for the trip back home. Many individuals would have liked to stay longer because there is just so much to see; however, it was clear the young participants had enough sightseeing and were ready to go home. It was truly an enjoyable learning experience for all.







Top: The Carrollton 4-H group. Center: Thomas Edison presentation. Bottom: The Croswell "Beet Toppers" enjoying the museum.

### CARROLLTON DISTRICT 4-H FIELD DAY

On July 1, the Carrollton District 4-H group met at the Saginaw Valley Bean and Beet Research Farm for a summer field day. The group started out by introducing themselves to each other, as this was only the second time the Carrollton and Breckenridge groups had met together as one. The field day consisted of a number of stops at different sites. Each stop had a different topic.

On the first stop, Reggie Van Sickle, a Saginaw Fair judge and Cooperative Extension worker, taught the group how to prepare and choose their sugarbeets for the fair. Reggie taught them that consistency of size and shape is more important than actual size.

Second stop on the list was Rick Leach, a local sugarbeet grower who taught the group how to take stand counts and explained how important stand counts are to sugarbeet growers. At the third stop, Mark Seamon, the Saginaw County Ag Extension agent, taught the 4-H students about nitrogen management and how excess nitrogen lowers the sugar content without raising the tonnage a significant amount. The students were able to look at test plots with different amounts of nitrogen fertilizer and compare leaf color and growth. Each student was given a Pioneer Sugar tape measure to measure the difference in leaf canopy growth with different nitrogen rates.

At the fourth and final stop, a weed identification scavenger hunt was held. Charlie Neuenfeldt, the Carrollton Agricultural Manager hosted this stop. 4-H students were shown pictures of four weeds and then asked to go on the farm and find them. Everyone had a wonderful time looking for weeds and most of the students found all four weeds, even though some were very difficult to find.

### SELF-PROPELLED HARVESTING PERFORMANCE

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Students enjoy the demonstrations, festivities, and exercises at the B&B Research Farm.

After all the field exercises were done, the group met back up in the research farm office for their choice of chocolate or vanilla ice cream from the MSU Dairy. All of the students enjoyed the ice cream. This was the first time in many years that the Carrollton 4-H group had a summer event that was separate from the combined company outing, everyone involved in planning the day thought that it was an overwhelming success. The planning committee is already thinking about next year's event.

### **4-H SUGARBEET PROJECT** AND SCHOLARSHIPS

#### ALBERT FLEGENHEIMER MEMORIAL SCHOLARSHIP



The Albert Flegenheimer Memorial Scholarship has been awarded to Cody Leipprandt, son of Philip and Sherry Leipprandt of Pigeon. The \$2,500 scholarship is presented annually in recognition of academic excellence and community involvement. The Albert Flegenheimer Memorial Scholarship

Cody Leipprandt

has been committed to providing financial assistance to high school seniors in the Michigan sugarbeet growing area since 1979. The scholarship is given in memory of Albert Flegenheimer, Chairman of Michigan Sugar Company from 1963–1970.

Cody is very active in the agricultural community. He has been involved in many leadership activities through the Laker FFA, including chapter president. Cody worked part time on the Zwemmer Dairy Farm along with keeping records on his family farm.

Some of Cody's other activities include membership in the National Honor Society and playing on the Laker football team. Cody plans to continue his involvement in agriculture by pursuing an agribusiness degree at Michigan State University. 🐴

#### PHIL BRIMHALL MEMORIAL SCHOLARSHIP



The Phil Brimhall Memorial Scholarship has been awarded to Laura Puvalowski, daughter of grower-owners Claude and Denise Puvalowski of Ruth. This is the fourth year this \$1,000 scholarship has been given to a graduating high school senior. Laura Puvalowski has

Laura Puvalowski

been active in the Michigan Sugar Sugarbeet Project for nine years. She has won the Premier Award four times and received the Prestige Award twice.

Laura has been very active throughout her high school career. She has concentrated on student council, cross country and volleyball activities. She has had strong parental support at home and is very appreciative of her parents' involvement in her life. Laura will be attending Central Michigan University this fall where she will pursue an education in business and, possibly, physical therapy.

The Phil Brimhall Memorial Scholarship was initiated by Delores Brimhall through Michigan Sugar Company in memory of her late husband. Phil was the Chief Agronomist for Michigan Sugar Company for 33 years.

#### THE GUY BEALS MEMORIAL 4-H SCHOLARSHIP



Andrew Kirsch

In November of 2003, the sugarbeet industry lost a valuable young grower due to a lifelong illness. Guy Beals, formerly of Brown City, was not only a successful sugarbeet producer, but also custom-harvested sugarbeets in the Croswell area, sold beet seed for Syngenta, worked for several agricultural suppliers, served as the Maple Valley Township Clerk (Sanilac County), and was an outstanding role model.

With the passing of Guy, a scholarship fund has been established in his honor. The Croswell District of Michigan Sugar Company will now be able to award \$500 each year to a deserving 4-H Sugarbeet Program participant in this district. The Guy Beals Memorial 4-H Scholarship

fund was established from donations of company shareholders and private individuals. This year's recipient was Andrew Kirsch of Harbor Beach. Andrew has been active in the Michigan Sugar Sugarbeet Project for ten years. He has received three Premier Grower Awards and earned the Prestige Award three times. Andrew plans to attend Michigan State University to pursue a degree in bio-systems engineering this fall.

### THE 2004 MICHIGAN SUGAR QUEEN

The 2004 Michigan Sugar Queen is 18-year-old Brittney Maurer of Harbor Beach, Michigan. Crowned at the Michigan Sugar Festival in Sebewaing on June 18th, Brittney has a busy year ahead of her. She will represent the sugarbeet industry as she visits with public officials, food industry leaders and the general public. Her schedule includes many official appearances during the year and riding on the Pioneer Sugar float in over 20 parades throughout Michigan.

Brittney, the daughter of Dave and Karen Maurer, is currently pursuing a degree in communications with emphasis on business at Michigan State University.

First runner-up, Amanda Shelly of St. Clair, Michigan, and second runner-up, Kimberly Gremel of Bay Port, Michigan, will serve on the queen's court as court attendants. In this capacity, they will accompany Brittney in many parades and other personal appearances.

Amanda Shelly, 19, is the daughter of Harold and Cynthia Shelly. Amanda currently attends Northwood University pursuing a



Left to right: Amanda Shelly, Kim Gremel, and 2004 Sugar Queen, Brittney Maurer.

degree in automotive after market and international business and management.

Kimberly Gremel, 20, is the daughter of Steve and Patti Gremel. Kim is attending Ferris State University pursuing a degree as a dental hygienist. She has been on the dean's list since attending the university.

Michigan Sugar Company's Jeff Adamo, Director of Human Resources, a judge for the second time this year said, "We had a very diverse group this year to choose from. All 16 candidates were well qualified, making it a difficult decision."

Michigan Sugar Company solely sponsors the Michigan Sugar Queen competition. As the sponsors, the company and grower-owners provide the queen with a \$2,000 scholarship for use at the university of her choice. The first and second runners-up are each awarded a \$1,000 scholarship.

Riding on the Countryside Transportation float in the Sebewaing Sugar Festival Parade are Madison Adam and Lauren Adam.



## SOMETHING OLD IS NEW AGAIN! DRY SHREDDED BEET PULP-AND IT'S AFFORDABLE!!



### Michigan Sugar Company is now producing dry bulk shredded beet pulp (shreds) at our Caro plant.

Many of today's dairy farmers have not had the opportunity to experience the advantages of feeding bulk shredded beet pulp, so you may have to ask Grandpa about it. Dry shreds are a good source of highly-digestible fiber with an excellent "scratch factor" to improve milk production and the butterfat level of that production. Shredded beet pulp contains a valuable combination of energy and fiber to increase fiber levels in the diet without diluting energy density. This adds up to a better bottom line for Michigan dairy farmers.

### \* AND YOU, AS A GROWER-OWNER, PRODUCE IT \*

Through a long-term marketing agreement with Midwest Agri-Commodities Company, LaBudde Group, Inc. is the sole marketer for this product from Michigan Sugar Company. While further processing a lot of the production for high-end horse feed at their processing facility in Akron, MI, LaBudde will also be offering a dairy-quality product year around.

If you are a top manager that realizes profit is more important than cost, then give LaBudde a call today at 800-776-3610 or 800-398-9011.





### *by Dick Leach, Director of Community and Government Relations*

Family reunions are always interesting events—old Uncle Ben talking about when he was a boy and Aunt Maude complaining about her

rheumatism. The key word here is "family." One of Webster's definitions of a family is "any class or group of related things." I don't get a warm, fuzzy feeling from that definition! I would like to think of a family as the basic foundation of society. My definition is probably no longer politically correct, but so what! I am entitled to my opinion.

Michigan Sugar Company operates like a big family, people working together, cooperating with each other to make the company prosper. A successful company provides jobs and a quality of life for its employees. Happy employees, in turn, make the company flourish. The family atmosphere was evident at the awards picnics at the four factories this summer. Friends being awarded for years of service and factories recognized for outstanding performance.

There are many families with more than one member employed by Michigan Sugar. Most of the beets delivered have been produced by family farms for generation after generation, and now Michigan Sugar Company is owned by those same farm families. Since 1966, three generations of the Flegenheimer family have had a role in the leadership of this company. Now we have the opportunity to welcome a new member to our Michigan Sugar Company family. If the deal can be finalized to acquire Monitor Sugar, we will welcome its employees and grower-owners into the Michigan Sugar Company Cooperative family.

Our grower-owners are important, our union employees are important, and our salaried employees are important to the continued success of this cooperative. Working together as a family, we are the heart of Michigan Sugar Company. Have a great and safe harvest.



2004 Carrollton Factory Service Awards.

## Where do you get the knowledge to farm successfully? It's more than trial and prayer.



#### Knowledge.

The farm is a place where knowledge lives, but change rules. Coaxing Where the teacher is your friend some days — but that brings you to your knees on others. Where you leverage what's in your control, and accept what's not. Still, you remain. You plant. You harvest. You face a neverending parade of challenges.

#### Responsibility.

You know what it takes to feed the world. And that responsibility weighs heavily. Early mornings, late nights, storm watching, index pricing. If consumers only knew, and appreciated, the hardships endured to accommodate their *quick trips to the store*.

#### Growth.

Coaxing the earth into yielding abundance is more than luck, more than an art, more than experi-

ence. It's precision. And that comprehensive science of growing profits starts in the ground. That's where we come in.

#### Reward.

Your gains at harvest are tied to your choices at planting. So choose the seed that's bred for your area, resists your diseases, and thrives in your fields. Then, choose to combine our knowledge with

yours for the ultimate reward — a better bottom line.

Growing your success. That's Hilleshög.





### Fall is here...

## ...and harvest is beginning.

This photo shows Ken and Don Feibig's farm southeast of Sebewaing.

Their family has been growing sugarbeets for over 70 years.

### **PIONEER NEWSBEET**

Fall 2004 Michigan Sugar Company P.O. Box 107 Caro, MI 48723

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