

# PIONEER NEWSBEET

Fall 2002



*Wind Erosion*  
**Success**





*by Mark Flegenheimer,  
President and CEO*

Autumn is always an exciting time of year at Michigan Sugar—with the harvest beginning and factories starting their processing campaign. This year, there is even more excitement than usual. The 2002/2003 campaign marks the first year of cooperative ownership of Michigan Sugar. It is also the 100<sup>th</sup> year of operation for your Carrollton, Croswell and Sebewaing facilities.

The ownership change has put a solid foundation under the company. It will ensure a full supply of beets for your facilities. With "full" acreage year in and year out, we can focus on running the business as efficiently as possible, allowing Michigan Sugar Company to run for another 100 years.

The recently passed Farm Bill and the elimination of the stuffed molasses activity/passage of Senator Breaux's Amendment further solidifies the base upon which your co-op is being built. The new six-year Farm Bill includes an allotment provision restricting domestic marketing/production. These allotments should increase sugar prices.

The sweetener trade dispute in Mexico, unfortunately, remains unresolved. I am hopeful, however, a resolution will be reached in the not too distant future. Once our government settles this issue, our industry should enjoy reasonable prices for the next few years.

Your employees and I are enthusiastic and eager to begin the first year together with our growers—the new owners of Michigan Sugar. We are also looking forward to the upcoming 100<sup>th</sup> anniversaries at the factories. We hope you share in our excitement and pride.

Have a safe harvest! 

## **ABOUT THE COVER**

**Small grains provide many different options for wind erosion management. (See pages 16 and 17.) At sugarbeet planting, drilled wheat between the sugarbeet rows provides good protection in June, but does it provide adequate protection to sugarbeet seedlings from an early May wind?**

## **TABLE OF CONTENTS**

<b>Root of the Business</b> .....	2
<b>2002 Crop Update</b> .....	3
<b>Research Update</b> .....	4-5
<b>Money For Nothing— Getting Nitrogen Applications Right</b> .....	6-7
<b>Province of Ontario Invests in Industry</b> .....	8
<b>Factory News</b> .....	9
<b>Information on Rhizomania</b> .....	10
<b>Sugar Queen</b> .....	11
<b>Around the Territory</b> .....	11
<b>Grower in the News</b> .....	12-14
<b>Grower of the Year</b> .....	15
<b>Cover Story—Wind Erosion Options</b> .....	16-19
<b>Tips to Deliver Sugarbeets for Long-Term Storage</b> .....	20-21
<b>History of the Grower Associations</b> .....	22-24
<b>Scholarship Recipients</b> .....	24
<b>Meet the Staff</b> .....	25-27
<b>Sugarbeet Quality</b> .....	28-29
<b>Community Window</b> .....	30

## **PIONEER NEWSBEET**

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# 2002 CROP UPDATE



*by Robert Braem,  
Vice President of  
Agriculture*

Producing this first ever sugarbeet crop for the Cooperative has brought on many new issues along with normal challenges associated with beet production in Michigan. While contracting acres, growers and agricultural staff had to account for every share purchased and be sure acres contracted matched exactly. Filling out forms and getting signatures all ended with 125,000 acres contracted this spring.

The first growers went into their fields near April 1<sup>st</sup>, planting nearly a thousand acres in a week. Rainfall stopped planting most days prior to April 15<sup>th</sup>, then planting broke loose. Years of experience and numerous research trials show early planting is imperative to high yield potential and quality. Growers were anxious to plant and worked hard throughout the second half of April. Approximately 90% of the crop was planted prior to May 1<sup>st</sup>. The remaining percentage was sown between rain showers over the next three weeks.

The sugarbeet crop emerged under cold wet conditions. Beet stands were good in most areas and growth remained slow, but steady for the first month. Our single most destructive event was wind on May 10<sup>th</sup>. Most of the 9,000 acres replanted in 2002 were caused by this storm. Many growers are now re-evaluating ways to control wind damage. Be


it planting in cornstalks, planting direction, cover crops or field selection, growers need to look at their fields and decide how best to manage this risk. The agricultural staff will discuss wind control later in this Newsbeet and during the winter in meetings.

Grower's weed control practices continue to evolve. Fewer acres were treated with preemergence herbicides again this year. Micro-rated acres and the number of applications increased. Many growers cultivated less frequently and some did not cultivate at all. How did these changes work in 2002 and will this trend continue? This was a tough year to control weeds and maybe not a fair test of new weed control practices. Early wet conditions hindered timely micro-rate applications and spread weed emergence over a longer period of time. Cool growing conditions slowed canopy closure and small weeds were not shaded out. These late emerging weeds and escapes from spraying appeared above the canopy in August. Unfortunately, weeds will be an issue in some fields at harvest and growers will be challenged to deliver clean beets.

Above average rainfall and warmer temperatures from late June through early August pushed crop growth and maturity. Those same conditions promote Cercospora leafspot and growers began spraying in July. A research project in Michigan called BEETCAST has tracked weather conditions conducive to leafspot infection. This technology will aid growers

in determining when to start spraying and the interval between subsequent applications. The net result can be more timely sprays and better control of this disease. In most areas, growers have controlled the disease with 1–3 sprays and good quality should have been insured.

Harvest this year will start earlier than normal, on September 24<sup>th</sup>. Michigan Sugar will receive over 20,000 more acres and over 10% more tons than a year ago. This early start will ensure uninterrupted supplies of sugar for our customers this fall and keep campaign from running too long. Significant changes to the early delivery premium were made for this year. Growers will be compensated for tonnage and sugar losses associated with early harvest. Early delivery premium remains in effect until October 13<sup>th</sup> or the start of permanent piling. The Co-op needs growers from all areas to start harvesting to provide good supplies to begin slicing and then adequate volume to maintain full factory slice until permanent piling begins.

This first crop year as a cooperative has been exciting and challenging. Growers have produced a good crop under varied and at times, difficult conditions. A safe and bountiful harvest will be a perfect finish to our year. 





*by Jim Stewart,  
Manager of  
Research*

The sugarbeet variety trials look very good this year and we are confident some of the new varieties will help boost sugarbeet yields in the near future. We have several 2<sup>nd</sup> year varieties in the trials yielded in the 105% range in last year's tests. At this time, the only numbers available are the emergence data. Seedex Prompt and the Hilleshog varieties led the way in emergence this year. We will also collect information on insect and disease tolerance as well as the yield and quality data. This information will be available the first week in December. Table 1 shows emergence values for the approved varieties in this year's trials.

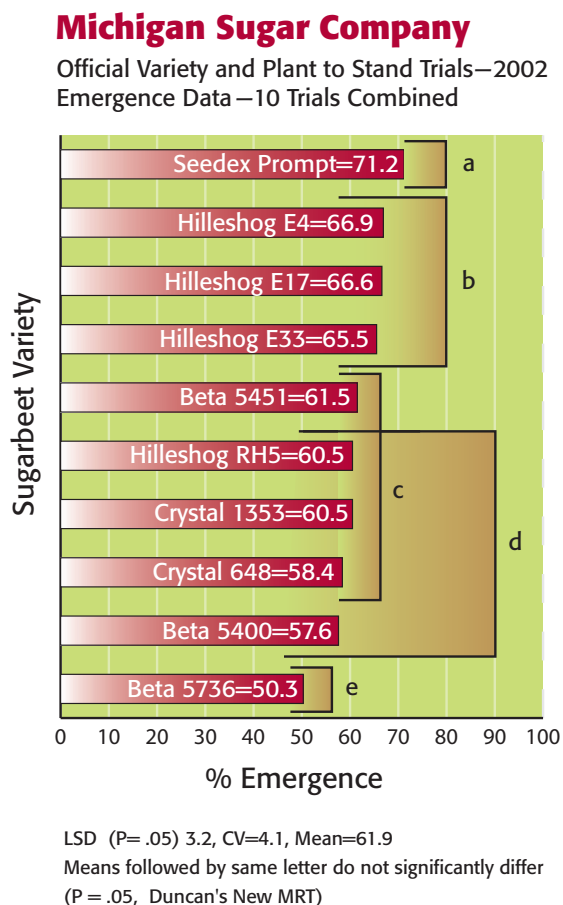
Even though we spend most of our time and resources on variety testing, we are working in some other areas which could return important dividends to our growers. One of these is a prediction model for determining when to apply our Cercospora leaf spot sprays. It was developed by Dr. Ron Pitblado from Ridgetown College in Ontario and sugarbeet growers in Ontario are using it this year. The model is called BEETCAST and you can learn a lot about it by logging on to [michiganbeets.com](http://michiganbeets.com). The model measures leaf wetness and temperature on a daily basis and feeds the information into a computer. The computer calculates a daily value (disease severity index or DSV) for disease infection and

development. As the numbers accumulate over time, the model predicts when it is time to spray. We are testing the model this year with the help of Dr. Pitblado and in cooperation with Steve Poindexter and Sugarbeet Advancement. As we learn how BEETCAST fits our growing area, we will be able to more accurately predict when it is time to spray for Cercospora leafspot. This program should maximize the dollars spent on

disease control when using fungicides. Stay tuned for additional information about the BEETCAST project. If you have questions or would like to see the testing site, you can contact myself, Teresa Crook or Steve Poindexter for more information.

Several chemical companies are starting to make generic formulations of herbicides and fungicides that we currently use for controlling weeds and diseases. Ag Value is a

**TABLE  
1**




new company developing look-alike formulations of Nortron, Betamix and Stinger. We have tested these generic formulations for weed control and sugarbeet injury and they appear to be quite similar to the current brand name products. Two new look-alike formulations of Topsin M are also being sold in our area. We are also testing these products for disease control, but the results will not be available for a few more weeks.

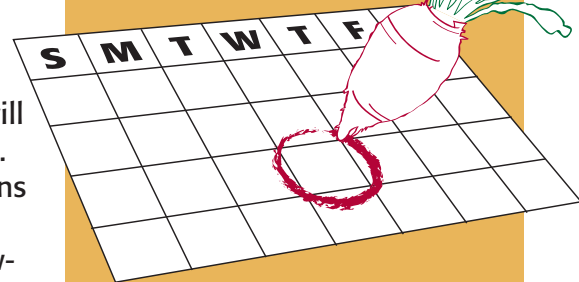
We are continuing to develop recommendations for the use of Quadris and similar products for controlling Rhizoctonia root and crown rot. Our small plot data from the past two years indicates Quadris gives effective control of Rhizoctonia when applied at the 6–8 leaf stage or as an in-furrow. Our research has shown mid-season applications also provide some Rhizoctonia control at a lesser degree. We are working with Steve Poindexter and Sugarbeet Advancement on replicated large plot trials to learn more about how to use Quadris for Rhizoctonia control. Preliminary results indicate in-furrow and 6–8 leaf Quadris applications are working when applied on a field scale with commercial equipment. Row closure applications appear to be less effective and should not be considered unless it also serves as the first Cercospora leaf spot spray. We are also confirming planting Rhizoctonia resistant sugarbeet varieties are a good method for controlling this disease. Additional research conducted at Michigan State University has

demonstrated planting sugarbeets after corn and plowing will reduce Rhizoctonia infestations.

Since early season applications of Quadris have given good Rhizoctonia control, many growers want to know if they can tank mix Quadris with their post-emergence herbicides. We are conducting research in cooperation with Dr. Karen Renner to answer these questions. Several trials have been established looking at mixing Quadris and Gem with the micro-rates and with standard splits. It quickly became apparent neither Quadris nor Gem can be used in the micro-rates with MSO. Serious sugarbeet injury occurred in each test with these mixtures. We also looked at substituting Kinetic and other surfactants in place of the MSO and we still had significant levels of injury. We have looked at applying several low rates of Quadris in the micro rate sprays which also caused serious injury. On a positive note, Quadris and Gem both appear to be safe when mixed with Betamix + Upbeet in standard splits, if surfactants are not used.

Our research program also includes work looking at Dual for weed control, the new generation of fungicides, foliar nutritional sprays, sugarbeet replanting studies and other trials. We will report our research findings in a written report and at the grower meetings we hold in the winter and early spring. 

## MARK YOUR CALENDAR...



### 100 YEAR ANNIVERSARY CELEBRATIONS

Michigan Sugar Company is proud to be able to celebrate three 100 year anniversaries this year. Carrollton opened on October 20, 1902; Croswell opened on October 23, 1902; and Sebewaing on October 27, 1902.

We will be kicking-off the first of the three celebrations in Sebewaing on November 8 & 9, 2002. An Open House and Factory Tour will start on Friday at 8:00 a.m. until 5:00 p.m. and on Saturday at 7:30 a.m. until 5:00 p.m.

Croswell will host their Open House and Tour on Friday, November 15 & 16, 2002. Both Friday and Saturday the doors will open for tours beginning at 8:00 a.m. until 4:00 p.m.

Carrollton will end the round of Centennial celebrations on December 6 & 7, 2002. They will host their Open House and Tours beginning at 8:00 a.m. until 5:00 p.m. for both days.

Mark your calendar and join us in our 100 year celebration!



# MONEY FOR NOTHING—GETTING NITROGEN APPLICATIONS RIGHT

By Mike Patchett & Patrick Jarvis,  
British Sugar. Reprinted from *British  
Beet Research Organisation, British  
Sugar Beet Review, Vol. 70, No. 1.*  
(Nitrogen 100 kg/ha=89 lbs/A)

No, the title does not refer to the Dire Straits song but to the opportunity many sugar beet growers have to maintain crop yields, improve quality and save input costs by timely application of the correct recommended rates of nitrogen fertiliser. In addition to increased pressure on input costs, there is growing pressure on growers to become more environmentally aware and reduce the risk of leaching and run-off of nitrates. Appropriate timing and use of both organic and artificial nitrogen fertilizers will help to achieve this.

## • Timing of application

Advice on the timing of nitrogen applications is aimed at producing the maximum economic sugar yield whilst minimising physical and chemical damage to seedlings and—importantly—minimising nitrogen loss as run-off or leaching.

The standard recommendation remains unchanged: apply 30–40 kg/ha N at drilling and the balance when the crop has fully emerged and by the two true leaf stage at the latest.

Data from the British Sugar 1991/2000 crop survey showed that approximately half of the national crop received the first application artificial nitrogen at drilling—as recommended—or within seven days. However, half



of the crop did not receive the first application at the optimum time.

Although rates of nitrogen fertiliser applied to the sugar beet crop have decreased over the last 30 years (Fig. 2), the average rate of artificial nitrogen fertiliser applied to the UK sugar beet crop in 2001 was still 14 kg/ha above the recommended rates and represents an unnecessary overspend of £856,800 by growers at 2001 prices. This figure takes no account of any organic manure inputs which would give even greater scope for cost saving.

The recommend rates of nitrogen fertiliser have been established from trials conducted over many growing seasons and sites. Trials by Dr. Philip Draycott at Brooms Barn and extensive factory based work in the 1970s are supported by more recent programmes of work funded by both the SBREC and British Sugar. The optimum levels of nitrogen fertiliser have not changed with the advent of newer and higher yielding varieties.

The British Sugar national total nitrogen fertiliser recommendations

based on soil type and previous cropping are:

	kg/ha
Loamy Sand	120
Sandy Loams ( <i>inc. 'light silts'</i> )	120
Loamy Sand/Sandy Loam + FYM	90
Loamy Sand/Sandy Loam following potatoes/legumes	90
Loamy Sand/Sandy Loam + poultry manure	60
Calcareous Loam	100
Clay Loam & Deep Fertile Silty Soils	60
Organic Soils (6–20% OM)	30
Peat Soils ( <i>greater than 20% OM</i> )	0

**There is no recommendation to apply more than 120 kg/ha in any situation and there are many circumstances where this figure should be reduced.**

Typically, rates should be reduced by about 30 kg N/ha for preceding crops with high nitrogen residues such as brassicas, peas, grass leys or potatoes. Where FYM has been applied the national recommendation should be

reduced by 30 kg N/ha. Poultry manure and other high fertility manures should be treated separately and their fertility levels taken into account when calculating N requirements.

### • Nitrogen Prediction Soil Sampling

Each spring, British Sugar's Agricultural Business Development department samples a range of soil types from the main sugar beet growing areas to determine the base levels of nitrogen fertility at the start of the season.

The first samples are taken towards the end of February and, following analysis, the first recommendations for the artificial nitrogen requirements are made. The sites are resampled when 50 percent of the national sugar beet crop has been drilled. The data from this second set of samples enables the recommendations to be fine tuned to allow for any reduction of residual nitrogen due to leaching, or any increase as a result of mineralisation since the first samples were taken.

This soil sampling exercise proved to be of great value last year when the results showed that despite heavy winter rainfall, leaching was less severe than anticipated and increased amounts of artificial nitrogen fertiliser were unnecessary—beneficial for the environment and growers' bank balances.

For the 2002 crop, sampling will be extended to additional sites in Shropshire and Herefordshire and,

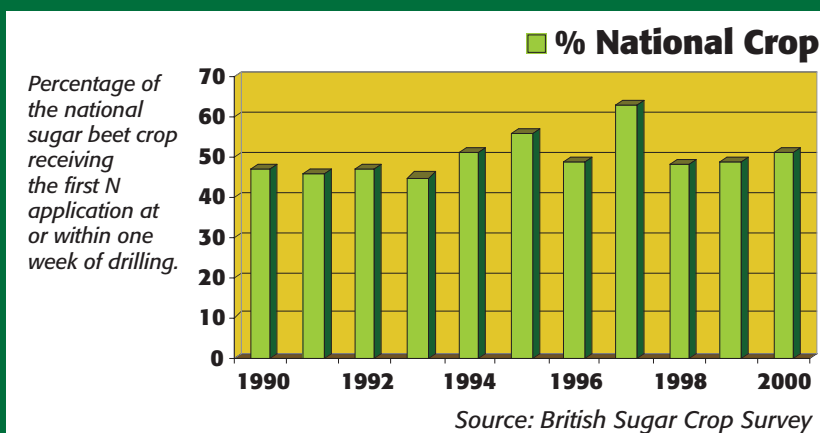
for the first time, sites in Yorkshire will be sampled.

To monitor the accuracy of the recommendations, a fully replicated nitrogen response trial is carried out each year on a sandy loam soil to evaluate a range of artificial nitrogen fertiliser rates and determine whether the most cost effective rate was consistent with our recommendations. In most years it is.

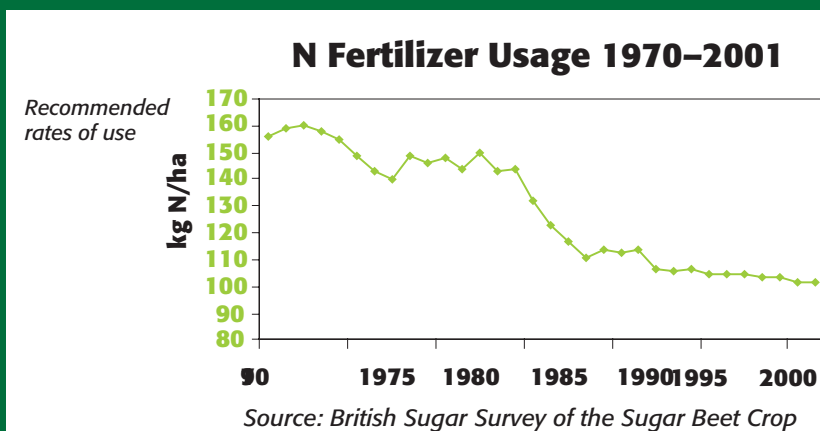
### • Conclusion

Although much progress has been made over recent years there is still a long way to go before the UK sugar beet crop as a whole is receiving the recommended rate of nitrogen fertiliser, at the recommended timing and growers are reaping the financial benefit as well as showing environmental awareness. 🌱

**FIGURE 1**



**FIGURE 2**



# PROVINCE OF ONTARIO INVESTS IN EXPANSION OF SUGARBEET INDUSTRY

The Government of Ontario invested \$752,000 (Canadian) in a sector-wide project to expand the sugarbeet industry, Associate Minister of Municipal Affairs and Housing Brian Coburn announced on July 24, 2002.

"The Province is proud to be a partner in a project which has so much benefit for the economy of rural Ontario," said Coburn who is responsible for rural affairs.

This project supports the expansion of an industry which provides important diversification of the agricultural land base; represents an excellent alternative cash crop for growers; creates jobs in production, handling and trucking; and generates revenue from U.S. exports, he added.

This project is funded through the Rural Economic Development Program and involves:

- expanding the piling yard in Dover Township to handle the increased tonnage of sugarbeets with new piling equipment;
- exploring the capability of piling beets in the field in Lambton County, following European practices;
- the pilot assessment of using field platforms to allow trucks to be loaded in fields rather than on concession roads; and
- applied research to identify optimal parameters for sugarbeet piling, storage and handling as new techniques are introduced.

The project will also focus on improving the information systems for the management of Ontario sugarbeet production including



*Left to right: Marcel Beaubien—Member of Provincial Parliament (MPP) for Lambton-Kent-Middlesex; Bob Braem, VP Agriculture, Michigan Sugar Company; Glen Jack—Chair, Ontario Sugarbeet Growers' Association; Ken Smith—Manager, Lambton Beet Harvesting Inc.; and Brian Coburn—Associate Minister of Municipal Affairs and Housing are pictured with the \$752,000 check from ONSTAR on July 24<sup>th</sup>, 2002.*

BEETCAST weather information, GIS field imaging and electronic weigh scales integration on delivery.

Project partners Ontario Sugarbeet Growers' Association, Michigan Sugar Canada Limited, and Lambton Beet Harvesting Inc. will provide funding for the balance of the \$1.5 million project.

"We're extremely pleased by today's announcement," said Glen Jack, chair of the Ontario Sugarbeet Growers' Association. "The provincial government's financial commitment will help secure the future of sugarbeet production in Ontario as an important source of jobs, investment, income diversification and exports for rural Ontario."

"I am delighted our government is funding this project," said Marcel Beaubien, MPP for Lambton-Kent-

Middlesex. "This project will set a good example of how provincial support of partnerships among rural industries can lead to economic growth in rural areas."

The five-year, \$200-million Rural Economic Development (RED) Program is a component of the Ontario Small Town and Rural (OSTAR) Development Initiative, a two-part, \$600 million initiative launched in 2000 to assist rural Ontario.

The RED Program's goal is to remove barriers to economic growth in rural Ontario by promoting a diversified business climate; exploring new products and new markets; creating a climate for long-term job growth; and investing in technologies and sectors that contribute to economic development in rural Ontario. 🍷





*by Herb Wilson,  
Vice-President of  
Operations*

Several times this past year I have been asked why we stress slice rate and sugar production rates in our factories. Some have asked if it would help lower our losses or be easier on the equipment if we backed off and went a little slower. Within reason, the equipment has been designed, or we have modified it, to operate at our top processing rates. Although one could argue some individual factory losses might be lessened at reduced rates, the reality is overall losses and cost will be improved at the greater throughputs. Increased daily slicing capacity translates directly into the ability to process larger crops during the same total time period thereby decreasing the cost per ton and yielding a higher return to growers. For example, the increased returns from processing a given crop in 130 days as compared to 135 days is very significant.

Most of us are well aware of the risks involved with the long term storing of sugar beets in piles. We often speak of weight shrink to express how well we have fared. Another way we evaluate the losses in beet storage is to calculate the sugar shrink. Under adverse conditions, sucrose is lost even without weight loss, as the sugar will convert to other substances. This results in sugar harvested which will never reach the factory in a

form that can be recovered in our process. Worse yet, each pound of sucrose converted to a non-sugar, will result in additional losses of the sucrose to molasses thereby lowering the pack and our return. A factory operating at a high throughput will minimize these losses by shortening the length of time the beets are at risk in storage.

The direct cost of processing a beet crop is also heavily influenced by the daily operating rate. Some of the operating costs change with the rate of operation. We generally refer to these as variable costs. Examples of this type of cost would be most of the major operating supplies and materials such as limestone, chemicals, etc. Other costs remain relatively constant and are independent of the factory operating rates. These are the costs we can improve, on a per unit basis, by increasing the daily operating rates and processing the maximum total tonnage per campaign. Major examples include rental expenses, property taxes, insurance, general overhead and seasonal labor.

Energy, one of our highest cost items, is an interesting factor because it is both variable and fixed. Although fuel usage increases and decreases with operating rates, it does not do so in direct proportion to the processing. The design of our process requires a certain amount of energy just to be on line and increasing the processing rate by, say, 10% does not necessarily require 10% more energy.

Another factor is sugar factories just plain operate better at the top

rates. The equipment sizing is designed for the maximum rates and is less efficient at reduced throughput. Some of the chemical sucrose losses experienced during the process are reduced at higher rates as well. This is due mainly to the reduced time sucrose is exposed to high temperatures.

Sugar processing requires a huge investment in facilities, equipment, maintenance and people. The best utilization of that investment and the lowest cost per ton comes with factories operated at maximum capacity.

A sugar campaign is an important and exciting race against time. Once the processing begins every effort is made to operate efficiently and at the highest practical rates. Twenty-four hours a day, seven days a week until the entire crop has been processed. Slow downs and breakdowns can be a major expense in our business. Our people are tuned to this fact and know that reduced rates cost us money and lessen our ability to be competitive in a tough business. 🇺🇸



# INFORMATION ON RHIZOMANIA



*Fluorescent green of the elongated petioles has a sharp contrast to the normal canopy color.*

Rhizomania is caused by Beet Necrotic Yellow Vein virus and is transmitted by the soil borne fungus, *Polymyxa betae*. The disease is spread by movement of contaminated soil and soil particles. In 1983, Rhizomania was first found in California; Michigan appears to be one of the last areas

affected due in part to the Rhizomania quarantine enforced by the Michigan Department of Agriculture (MDA) since 1992. This quarantine allowed the sugarbeet breeders time to develop varieties tolerant to Rhizomania.

Symptoms of Rhizomania infected beets are first seen as bright light green or yellow areas in fields and can be confused with lack of nitrogen or water damage. Infected sugarbeets will show elongated and erect petioles. Below ground symptoms may include stunted taproots with masses of hairy, secondary roots. Some roots will be sprangled or show a constricted taproot several inches below the soil surface (wine-glass shaped). Pale yellow to dark brown discoloration of the vascular tissue can be found when slicing the root.

Yellow foliage and stunted roots can be caused by numerous other factors such as nutrient deficiency, other fungal diseases, water damage, compaction or drought. A positive identification can only be made with a laboratory test.

Field sanitation measures are similar to those used to control the spread of sugarbeet cyst nematodes. Focusing mainly on eliminating soil movement from infested fields, growers should clean equipment before moving to a non-infested field. Tare dirt should always be returned to the field it came from or dumped in a non-agricultural area, if available.

Control measures include planting tolerant varieties. Rhizomania tolerant varieties have been tested to see how well those varieties are adapted to Michigan. Seed companies have also focused breeding efforts

toward Rhizomania tolerance and continue to make improvements. New varieties with tolerance will be available in limited quantities for 2003. Planting early; longer crop rotation; good field drainage and field equipment sanitation minimize the impact of Rhizomania.

We will keep you informed through letters, grower meetings and contact with your local agricultural staff. Please feel free to contact your local ag office with any questions you may have. 🌱

## **For more information on Rhizomania, you may search the following internet sites:**

<http://www.ipm.ucdavis.edu/PMG/r735100111.htm>

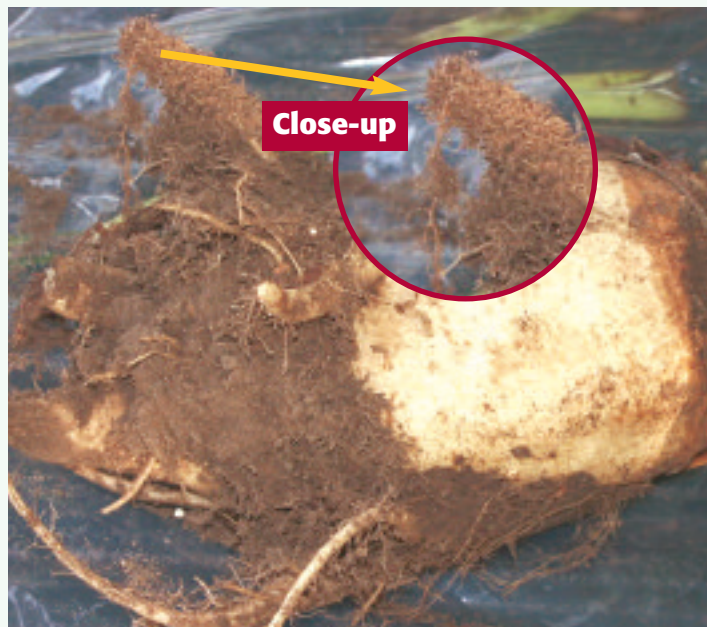
<http://www.ianr.unl.edu/pubs/plantdisease/nf121.htm>

<http://www.uidaho.edu/sugarbeet/Disease/rhizartcl.htm>

<http://www.ext.nodak.edu/extpubs/plantsci/rowcrops/pp1142-2.htm>

<http://www.sbreb.org/brochures/wyoming/wyoming.htm>

<http://www.hilleshog-us.com/Rhiz.htm>



*Advanced Rhizomania development has a mass of hairy-secondary roots with the appearance of "bearding." Rhizomania can result in a 25 to 50% loss in recoverable sugar per acre (photo Ralph Fogg).*



# 2002 MICHIGAN SUGAR QUEEN BEGINS HER REIGN

The 2002 Michigan Sugar Queen is 20-year-old Jelanie Rae Schnettler of Munger, MI. She was crowned at the Michigan Sugar Festival in Sebewaing on June 21<sup>st</sup>, 2002. Jelanie has a very busy year ahead of her. She represents 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, often riding on the Pioneer® Sugar float in over 20 parades throughout Michigan.

Jelanie, the daughter of Robert and Sherry Schnettler of Munger, Michigan, is currently pursuing a degree in Physiology (pre-med) specializing in Public Health and Humanities at Michigan State University. She is a child grief counselor and belongs to the Honors college.

The first runner-up was Terra Houthoofd, of Akron, Michigan. Terra is the daughter of Terry and Wendy Houthoofd. Terra is attending the University of Detroit-Mercy and studying to become a dentist.

The second runner-up was Emily Sneller, of Sebewaing, Michigan. Emily is the daughter of Darwin and Kathy Sneller. She attends Michigan State University, majoring in Crop & Soil Science with a bio-technology emphasis. Emily also belongs to the Honors college. Terra and Emily will serve on the queen's court. In this capacity, they will accompany Jelanie in many parades and other personal appearances.



*The 2002 Sugar Queen is Jelanie Rae Schnettler of Munger, MI. First runner-up was Terra Houthoofd (right), of Akron, MI. Second runner-up was Emily Sneller (left), of Sebewaing, MI.*

Michigan Sugar Company's Jeff Adamo, Director of Human Resources was a first-time judge this year. He said, "The fourteen candidates were extremely well-qualified and it was a difficult decision."

Michigan Sugar Company and the Great Lakes Sugar Beet Growers Association sponsored the Michigan Sugar Queen competition. As the sponsors, the company and growers provide the queen with a \$2,000 scholarship for use at the university of her choice. Each member of the court receives a \$750 scholarship. 🌿

## AROUND THE TERRITORY

Michigan Sugar Company, along with Bronner's Christmas Wonderland and Zehnder's of Frankenmuth, sponsored a Mother's Day promotion where Mother's Day cards were distributed to the second and third graders at more than 100 elementary schools in the Saginaw, Bay, Tuscola, and Huron counties. The cards were designed for the children to color and tell mom why she's the "sweetest." On the back were coupons to be redeemed at Bronner's for a cookie cutter and a two-pound bag of Pioneer Sugar, or at Zehnder's Marketplace for three delicious rosettes. The coupons were collected and put in a bowl for a drawing to be held on July 31<sup>st</sup> worth \$300. The prize was a gift basket provided by Pioneer Sugar worth \$100, Bronner's and Zehnder's gift certificates for \$100 each. Michigan Sugar has co-sponsored this event with Bronner's since 1999. This was the first year Zehnder's joined in the fun. 🌿



*Winner Maryke Weidman with son, Jared of Cass City.*



*by Jeff Elston,  
Agriculturalist,  
Sebewaing District*

The Zimmer family has grown sugarbeets in the Michigan Sugar Company's Sebewaing district for many years. This family-run operation in Tuscola County sits just across from the Huron County line along M-25, and is nestled north of Unionville adjacent to the family homestead. The Zimmers have lived and farmed here since 1864. Tom Zimmer farms with his two sons, Mark and Mike. These three men are the sole workforce for the farm except during the beet harvest. For this ten-day to two-week period, they hire part-time help to drive the sugarbeet trucks and run the defoliator. Tom's wife, Sally, is an accountant in Bay City. She also helps with bookkeeping for Tom's part of the farm operation. Mark's wife, Lori, and Mike's wife, Terry, aid their husbands with their bookkeeping.

During the mid 1930s Tom's grandfather, William, and father, Vernon, started growing sugarbeets for the Sebewaing factory. Tom began farming with his father back in 1959 and worked with him for many years. After Vernon's retirement Mark joined the farm in 1981, with Mike following later in 1996. During the winter months, Mark and Mike work as contracted electricians. As spring approaches, the two sons join their father back on the farm for their fieldwork preparation.

Throughout Tom's farming life, he has been an influence among the Sebewaing growers. He has been on the local grower's board for over a quarter of a century, holding many different offices, Vice-President and President. As a result of these different positions, he has been involved with contract negotiations, grower relations, and other various interactions between the growers and Michigan Sugar Company. In addition, he has represented the sugarbeet growers and industry in legislative matters with our government officials in both Lansing, Michigan, and in Washington, D.C.

The last two-and-a-half years, Tom has had a bigger endeavor on his agenda. He was one of the main forces and biggest optimists in forming our grower-owned cooperative. During the negotiations he was the Vice-Chairman of the Co-op Board, and after the election of new officers, he was elected Chairman of the Board. In addition to these positions, he has been on the Executive Committee of the American Sugarbeet Growers Association.

As the fieldwork began last spring, Mark planted the sugarbeets with a 12-row JD Maxemerge planter in 30" rows. They used mostly regular coated seed from all four sugarbeet seed companies in their fields. The Zimmers did not use any preemergence herbicides this year when they planted. They microrated (post-emergence sprays) using Betamix, Upbeet, Stinger, and methylated seed oil (MSO) five



*Mark, Tom and Mike Zimmer  
(left to right) are in one of their  
sugarbeet fields this year.*

times in their fields. As a whole, they had excellent weed control throughout their fields. They stated for their operation, micro-rating is the best approach for killing weeds. Assure was sprayed alone to kill some annual grasses in their fields. Each man takes their turn in spraying applications and cultivating their sugarbeets. During harvest, Mike runs the 6-row Artsway harvester, Mark drives the semi-truck, and Tom does all the other various jobs to make the beet harvest run smoothly. Their cash crop farm has a rotation of sugarbeets, corn, drybeans, and wheat. In some years the Zimmers will grow some soybeans, but this year they did not grow any. The Zimmers were also a founding member of Bayside Beans located in Sebewaing, where Mark is president.



## PROFILE OF FAMILY FARM FOR THE ZIMMERS

Besides farming, the Zimmers are committed to their families and their community. Tom and Sally also have a daughter, Dawn, who is a registered nurse in Boston. Tom enjoys spending time with his grandchildren. Mark and Lori have two children, Gavin and Landin. Mike and Terry have three children, Ryan, Madison, and Rylee.

Tom coached basketball in the USA school system for 16 years. He is also on the Board of Elders for the Unionville Moravian Church. Mike joined Tom in the coaching ranks and is a youth advisor at the Moravian Church.

The Zimmers enjoy spending time with their family and participate in recreational sports such as golfing, softball and bowling.

The Zimmer family has been very supportive and active in Michigan Sugar's 4-H and FFA Sugar Beet Project. Three generations starting with Tom, then Mark and Mike, and now Ryan, have participated in this project. Tom was on the 4-H committee for many years representing the grower's board. He believes the project gives the children an opportunity to be more involved with, not just sugar interests, but all farming interests and instills

community involvement and well-being.

Besides getting married to Sally, raising their children and enjoying his grandchildren, Tom states his biggest accomplishment is helping form the sugarbeet cooperative. He feels the Co-op has a good management team, excellent distribution channels, plus the expertise and knowledge of growing quality sugarbeets in today's competitive market. He firmly believes this cooperative will thrive, succeed and prosper as well as other grower-owned sugarbeet cooperatives operating throughout the country. 🍷

## WHAT'S AT THE ROOT OF YOUR SUCCESS?



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*Marie and Bob Tenbusch proudly displaying a few of their many awards.*

The talents of our growers never cease to amaze all of us. For example, Bob Tenbusch was inducted into the Michigan State Polka Music Hall of Fame in October 1999. How, might you ask, does a person achieve this honor when

farming full time, including sugarbeets?

Bob Tenbusch has always lived in the “thumb” of Michigan; he was born in Ubly; married Marie (Dekoski) from Parisville; and raised four children near Rapson. Bob and Marie currently reside on Sectionline Road, Bad Axe.


When Bob started farming, the first year he rented the land. The next year he bought the farm with 50 acres wooded and 150 tillable. He farmed this ground while working at the Nestle’s dairy in Ubly. Bob has been growing sugarbeets (directly and helping his son, Wally) for 37 years. His farm operation grew to 1,100 acres in the early 1980s. Crops included corn, wheat, dry edible beans (navies and black turtles) and sugarbeets; plus they finished steers. They produced 300 acres of sugarbeets. Custom harvesting 200 to 300 acres of sugarbeets was another source of income. They bought their second harvester, a Heston four-row, in 1971 and their custom harvesting business continues today. Bob retired from farming full-time in 1999 for health reasons; his son, Wally, continues to farm today on a limited basis.

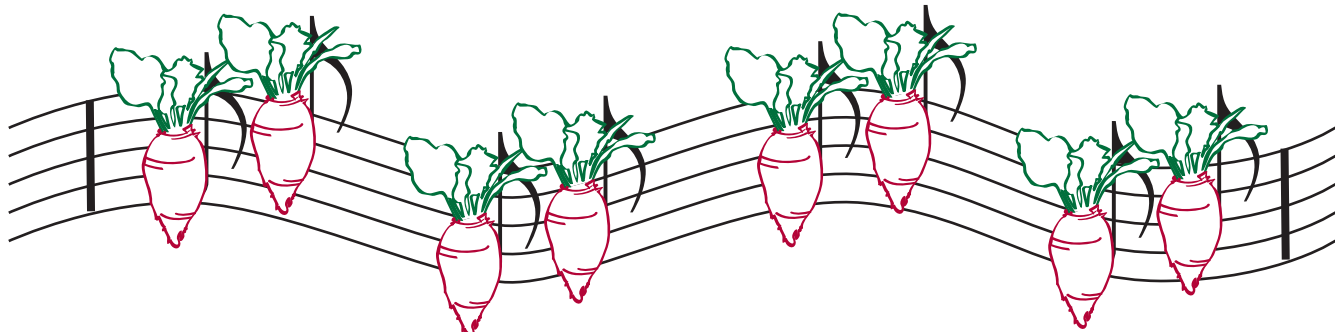
Forty-six years ago (1954), Bob created a band called the “Melody Makers,” a four-member band

consisting of trumpet (Bob); sax; accordion and drums. They played at many events such as wedding receptions, showers and festivals in the thumb area. In 1969, the band changed their name to the Michigan Cavaliers and with a couple different musicians played “honkey” style music. This band made their first polka album in 1971 with “Polka Music is Here to Stay.” The Golden Stars band was formed in 1974. Since then the groups have made two more albums. Bob continued to play in bands until he retired formally from music in 1999 after 30 years.

Bob and Marie have been married for 43 years. They have four children: Wally; Doug; Celine and MaryJo; all of which are very musically inclined and accomplished musicians in their own rite. The two boys, Wally and Doug continue their fathers’ tradition and play in the “Tenbusch Brothers,” plus persist in farming 500 acres.

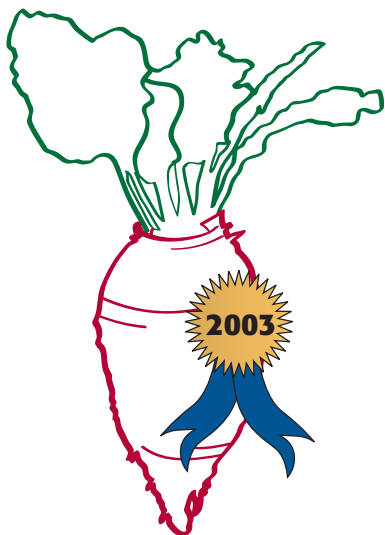
Bob has participated in additional activities including: Harbor Beach FFA Alumni; Ubly Foxhunter’s Club, plus church Pastoral Council; choir director and building committee. In addition, Bob has graciously supported and organized many benefits for the members of local community. Marie has always been very active behind the scenes for the bands. She also sings in the choir and has lead the church bible study group for years.

Bob’s dedication to the many things he feels are important is exemplified by his being selected as the Outstanding Citizens by the Croswell Sugarbeet Growers Association in 2000. This award shows the contributions Bob Tenbusch has made to his community, in addition to the full-time occupation of farming in his other life. This is how Bob Tenbusch achieved the induction into the Michigan State Polka Hall of Fame. *TMC* 





# grower OF THE YEAR



For the 2003 crop, Michigan Sugar Company will award its first ever Grower of the Year Award. The Grower of the Year Award program is designed to give growers an incentive to improve their agricultural production practices focusing on recoverable white sugar per acre (RWSA) not just tons per acre.

For the 100 years Michigan Sugar Company has been in business, growers have concentrated on producing tons of beets per acre. Growers have always equated payment based on tons of beets delivered. Now the growers own the Company, they need to understand their payment is directly related to the production and sale of sugar, pulp, and molasses. **Recoverable white sugar per acre** needs to be emphasized to all grower/owners.

To compete for the prestigious Grower of the Year Award you have to be willing to follow these criteria:

1. All acres by production (grower) unit will be included in the average for RWSA and recoverable white sugar per ton (RWST). Company records will be used to determine RWSA and RWST. *Dual growers will be expected to verify delivery for all their sugarbeet acreage, and, in addition will use all their sugarbeet acreage's yield to determine their RWSA.*
2. Growers need to be willing to share their production practices and willing to host a farm tour to their operation the subsequent year. 🍷

**Table 1 (Right):** This is five-year data (1997–2001) from the grower crop records (8513 contracts). Note the impact of B/100 (stand generated from the tare samples) on quality and yield. As you increase stand; quality and yield trend upward.

**TABLE 1**

**2001–1997 Grower Crop Records B/100 Summary**

B/100	T/A	%S	%CJP	NH2	RWST*	RWSA	SEED SP
<50	9.4	17.3	93.2	13.8	245.2	2316	4.62
60	12.0	17.1	93.2	14.2	242.5	2903	4.68
70	14.1	17.5	93.4	13.5	249.6	3504	4.62
80	15.3	17.4	93.3	13.4	247.0	3771	4.54
90	16.3	17.6	93.5	13.0	252.2	4109	4.58
100	18.1	17.6	93.5	13.1	251.9	4550	4.60
110	18.7	17.6	93.5	13.1	252.4	4714	4.54
120	19.6	17.7	93.6	12.8	253.7	4958	4.46
130	20.5	17.7	93.6	12.9	253.7	5207	4.40
140	21.2	17.8	93.7	12.7	255.9	5426	4.38
150	21.9	17.8	93.7	12.7	255.6	5589	4.32
>150	23.1	17.8	93.7	12.8	256.3	5921	4.18
115	19.3	17.7	93.6	12.9	253.5	4884	4.44

**Key:** B/100: Harvested Beet/100 ft. row; T/A: Tons per acre; %S: Percent sugar; %CJP: Percent Clear Juice Purity; NH2: Amino-nitrogen (meq/100g S); RWST\*: Recoverable white sugar per ton (lbs/ton) based on 120-day slice equation; RWSA: tons/A \* RWST; Seed SP: Seed spacing at planting (inches)



# ***Wind Control Options***



**Drilled wheat alongside the  
sugarbeet rows at planting.**



**Wheat planted  
through insecticide  
hoppers in the  
row with the  
sugarbeet seed.**

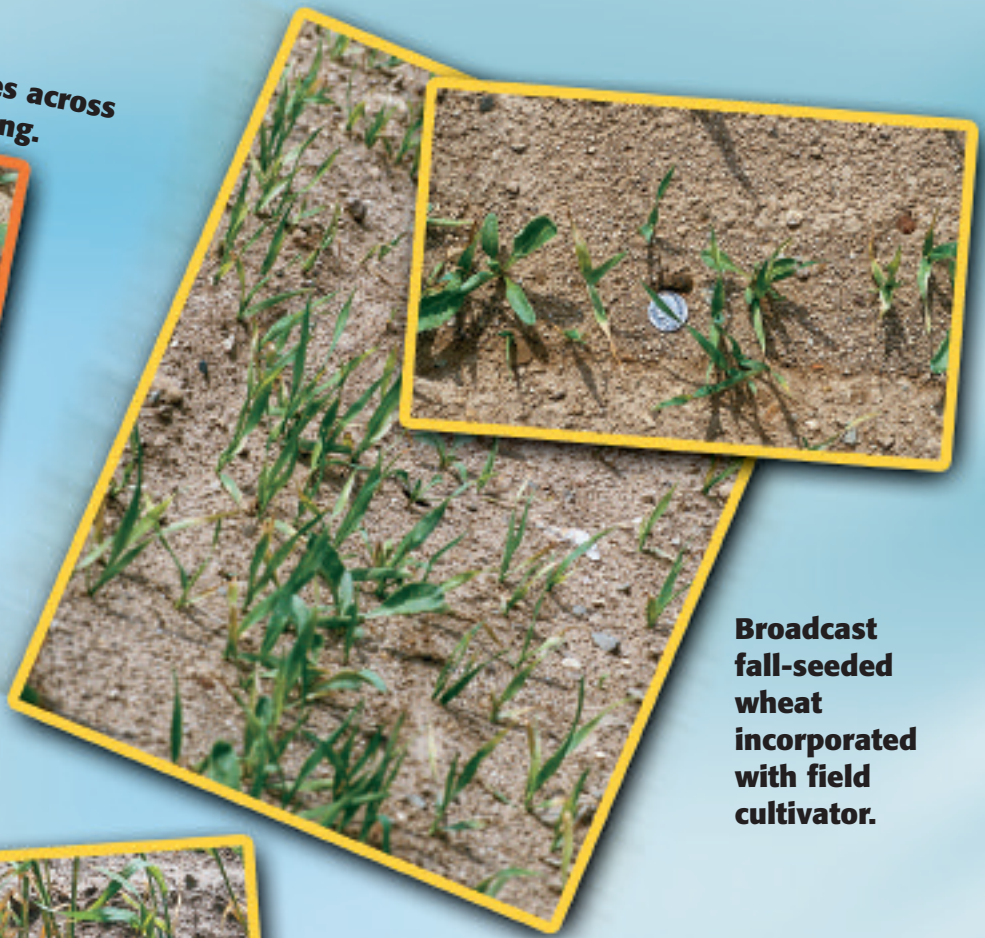




**Wheat drilled at angles across  
sugarbeet rows in spring.**



**Broadcast  
fall-seeded  
wheat  
incorporated  
with field  
cultivator.**



**Fall planted wheat and  
spring barley.**



**Fall planted rye.**





# WIND EROSION—PROTECT YOUR BEETS FROM THE WIND!



*Cultivate early and deep!*

How much does wind erosion cost you each year? In 2000, we replanted 19,636 acres and in 2002 we replanted over 9,100 acres primarily due to wind (and water) erosion both years.

If the yield loss from wind is more than 5.0 tons/A (see Figure 1), this would justify wind erosion

control on ALL acres! At more than 19,000 acres (replanted) X 5 tons/A, the loss would be 95,000 tons (conservatively) which would be more than six days' slice at the four factories. The loss would be more than \$3.3 million at \$35 per ton (or more than \$25/A for ALL 125,000 acres). Wind erosion prevention can be achieved for less than \$25/A!

The Great Lakes sugarbeet growing region is known for strong spring winds. Winds in 2000 actually killed sugarbeets in the 8-leaf stage. To reduce the impact of wind erosion, follow suggested practices:

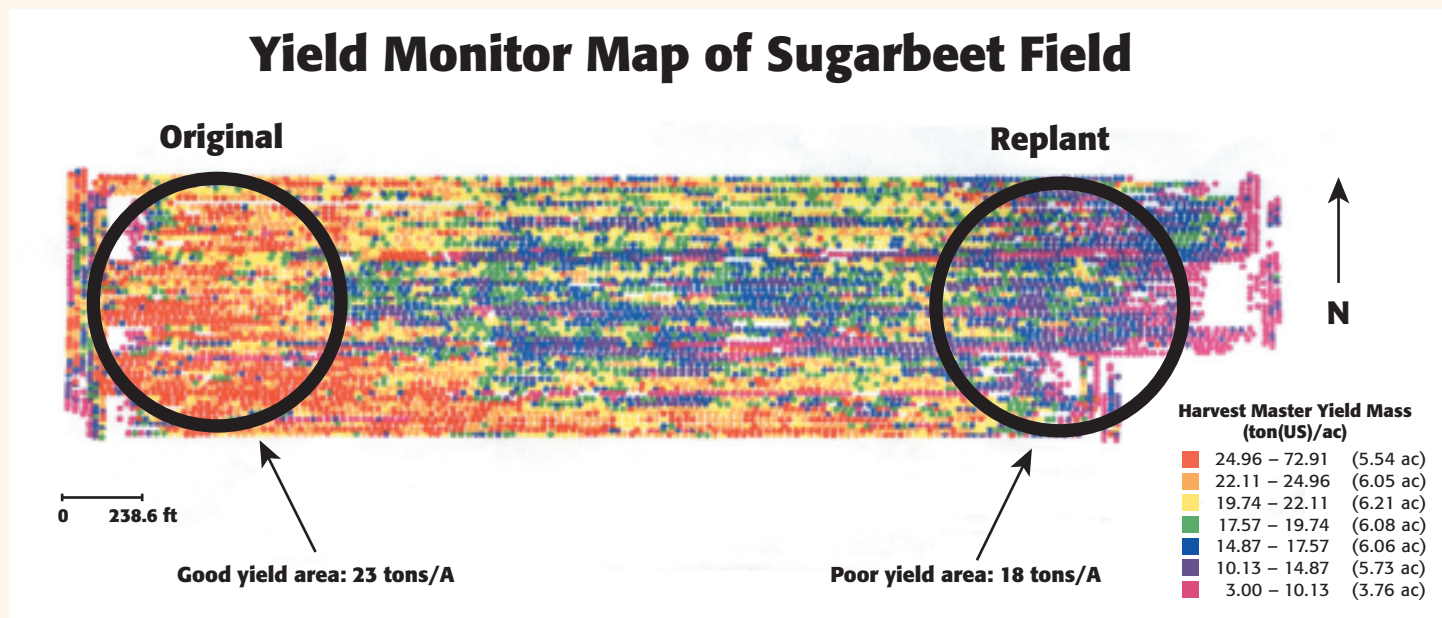
1. Plow and fit ground at right angles to the prevailing wind.
2. Plant rows north and south.
3. Use reduced or minimum tillage (leave a rough seedbed).

4. Use a cultivator tooth between rows at planting time.
5. Plant into fall-seeded oats or wheat.
6. Plant sand knolls to oats or wheat.
7. After planting sugarbeets, drill oats or wheat at intervals across the field.
8. Cultivate early and deep.

Plan now on what wind erosion practices you will be implementing for your sugarbeet crop next year! Keep in mind, when you change one part of your system, it may impact another. For example, an insect (e.g., cutworm) will lay their eggs in green material in the spring.

You cannot afford to replant your sugarbeets from wind erosion! Protect your beets for the wind! **TMC** 🌾

*Figure 1: This yield monitor map of a 2000 field shows the dramatic impact of wind erosion can have on sugarbeet yield. The yield of the original planted sugarbeets was more than 23.0 tons/A compared to the replanted sugarbeets yield of 18.0 tons/A. This difference of 5.0 tons/A at \$35 per ton could easily justify wind erosion practices. (Map courtesy of LAKKE Ewald Farms, Inc.)*







## PROTECTING SMALL SUGARBEETS FROM WIND

by Dr. Karen A. Renner

Small sugarbeets and very windy days are a bad combination! If high winds occur soon after a pounding rain, the sugarbeets are very vulnerable to “sand blasting” by soil particles blowing across the soil surface. This is what we experienced in 2002 in clean-tilled fields and no cultivation. Many fields and areas in fields were replanted which normally would not be considered problem areas. An early cultivation to “rough up” the field would be one option to protect small sugarbeets in clean-tilled fields. If growers cultivate small sugarbeets they should try to cultivate within one to two days following their postemergence herbicide application. This should result in the weeds in the row and between the row being controlled at the same time (within 48 hours). If another broadcast or banded herbicide application is needed, very small weeds will be at a similar size ( $\frac{1}{8}$  to  $\frac{1}{4}$  inch) across the field in the next 7–14 days (depending on temperature).

We have conducted some research over the years on evaluating tillage and planting small grains for wind erosion protection. Bernia Farms, Paul Knoerr, and John Burk were co-operators. We appreciate their insights into protecting sugarbeets from the wind.

### Summary:

1. Mulch tillage after strip-cropping protects young sugarbeet seedlings from wind erosion. Thirty-five percent crop residue cover remained in the spring after mulch tillage of corn stubble and sugarbeet planting. After mulch tillage of soybean stubble and sugarbeet planting, 12% crop residue cover remained in the spring. Sugarbeet stands were 23% greater in corn residue.
2. No-till and zone-till systems had lower sugarbeet populations and yield compared to the conventional tillage system in two years of research. No-tillage and zone tillage reduced soil erosion by leaving up to 70% crop residue cover on the

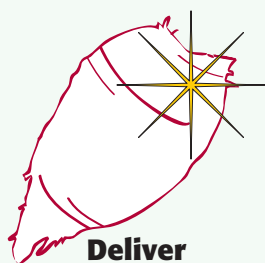
soil surface. However, conventional tillage had the highest net return.

3. Small grains can be seeded in sugarbeet fields to protect small beets from winds and blowing soil. Wheat or barley can be seeded in the fall or in the spring. Barley establishes quickly in the spring and works as well or better compared to wheat for wind erosion protection. Oats should be frost-seeded in the spring. Rye could be seeded in the fall, but problems occur because it grows so rapidly in the spring and is difficult to control. Spring-seeded rye would work better. Annual ryegrass does not work well because it establishes slowly and is quite small, yet it can become a weed problem in future years.
- 4 Cultivation alone does **not** control fall or spring seeded cereals.
5. Roundup (glyphosate) (prior to sugarbeet emergence!!!) was very effective controlling all fall or spring-seeded cereals. However, very little small grain residue remained on the soil surface to protect sugarbeets, particularly where small grains were seeded in the spring. Roundup could be banded over the row before sugarbeets emerge to allow spring-seeded cereals to remain between the row to protect sugarbeets. The small grain crop between the row would then need to be killed with Select, Assure II, or Poast.
6. Assure II, Select and Poast easily kill oats. Rye is the most difficult cereal to control, followed by wheat and then barley. Fall-seeded rye is **very** difficult to control. Fall-seeded wheat and barley are also difficult to control. Assure II or Select are more effective than Poast. For spring-seeded cereals, all three of these herbicides will work. Tank mixtures with Betamix or Progress will reduce the effectiveness of these herbicides. I have not tried to control these small grains with a micro-rate application including Poast, Select, or Assure II to know if the MSO overcomes this problem. The slower the kill of the small grain the

*continued, page 27*

# TIPS TO DELIVER SUGARBEETS FOR LONG-TERM STORAGE

To help ensure high quality sugarbeets are delivered for long-term pile storage for YOUR company, you, the owners, need to deliver HEALTHY (not stressed) sugarbeets free of excess dirt, tops and weeds. Roots in storage piles are alive and must be maintained in this “live” condition. Michigan Sugar Company’s Ag Department strives to best manage piles by adjusting pile height; managing sugarbeet receiving temperatures; and utilizing infrared pile scanning; etc. We encourage weedy fields and/or fields which have “burned” down with leafspot (even to the point of regrowth) to be harvested during the early delivery period! This joint effort will help ensure maximum returns to you, the owners!



**Deliver clean beets.**

1. **Deliver Clean Beets:** Lifting needs to be done at a speed allowing the harvester to remove as much soil and remaining green material (tops and weeds) as possible. Slower harvester speeds will give you cleaner beets; more roots lifted; and fewer broken roots (resulting in higher tonnage). Root breakage and bruising during harvesting and truck loading provide openings for rot organisms. These rot organisms will increase the respiration rate, resulting in higher sugar loss in storage. Be mindful of ways to reduce breakage and bruising of your sugarbeets.

2. Heavy Weed Pressure, **USE a Flail Shredder:** In fields where heavy weed pressure is present at harvest, run a flail-shredder ahead of the defoliator, being careful not to damage the sugarbeet’s crown. This will improve the performance of your defoliator; extend the life of your rubber flails; and allow you to deliver sugarbeets acceptable for long-term pile storage. A couple other options would be to have steel (or even steel-studded paddles) on one of the drums OR run the defoliator two times in opposite directions.



**Well defoliated sugarbeets store better in the piles.**

3. **Proper Defoliation:** Green material (ALL) should be removed, but the beet’s crown should remain intact. Leaves and petioles remaining on the root decrease ventilation (air movement) through the pile which increases sugar losses in storage. One of the major causes of “poorly-topped” sugarbeets is the defoliator’s ground speed being too fast (ideal speed is 3 MPH). In the tare room, the “green material” will remain on the beets as they are sawed for quality analysis. This green material will cause a decreased sugar content on your contract.

4. **Stressed sugarbeets do not store.** Sugarbeets burned down from leafspot or other pest problems need to be harvested during early delivery. Stressed sugarbeets have higher respiration rates and do not store in the piles. As grower/owners, YOU want to deliver only healthy non-stressed sugarbeets for permanent piling and long-term storage.

5. **Proper Root Temperature is below 50°F:** Roots in storage piles are alive and must be maintained in a live condition. When piled hot (above 55°F), beets use much more sugar through respiration than when piled cool (below 50°F). Higher root temperatures



**50°**  
Proper root temperature is below 50°.



have increased respiration rates. Of sugar lost in storage, approximately 70–80% is utilized for respiration. The remaining 20–30% is due to beet decay and fermentation which is accelerated by higher pile temperatures. Fermentation is caused by decay organisms and a lack of oxygen in piles. Lowered oxygen levels can result from excess dirt, weeds and tops reducing air movement through the piles.



**No frosted  
or frozen  
roots.**

6. **NO Frosted or Frozen Roots:** Frozen roots or beets with frozen crowns cannot be piled for long-term storage under any condition. Frozen tissue is damaged and will not heal once the root is harvested. Do NOT defoliate beets when freezing conditions are predicted; tops (leaves) help protect (insulate) the crown and beet. Defoliated beets will have much more frost (or freeze) damage compared to beets with the leaves remaining intact.

7. **Improving Delivery Efficiencies:** To decrease your truck drivers' unloading time at the pilers, please equip your trucks with chutes and flashing to reduce spillage around the piler swings. The time it takes your truck hoist to come down greatly affects your truck's unloading time at the pilers. Most truck hoists do and ALL should come down in less than 60 seconds. Time is money!

You have worked hard all year. You need to harvest as much of the crop as possible. Always harvest your poorest fields first. Leave the best ones with the most potential to gain! Slow down your harvester! Have a safe and successful sugarbeet harvest season! *TMC* 🌱



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**Use these signs to notify of  
slippery roads.**

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# HISTORY OF THE MICHIGAN SUGAR COMPANY GROWER'S ASSOCIATION

*The following is a compilation of the different phases the Great Lakes' growing region grower associations that have taken place since their inception in the early 1930s to present.*

## **FARMERS AND MANUFACTURERS BEET SUGAR ASSOCIATION—YESTERDAY**

The Farmers and Manufacturers Beet Sugar Association (F & M) was founded during the Depression when farmers wanted to deliver more sugarbeets than the processors could handle due to the relatively poor prices in other crops. Groups of farmers and manufacturers realized in order for the beet sugar industry to survive the two groups would have to join forces and work together for mutual benefit. Originally founded in 1932, the F & M had representation from Wisconsin, Indiana, Illinois, Ohio, Michigan and Ontario.

During its history, F & M provided services which aided the sugarbeet industry. The agricultural developments included the following:

- Production of domestic seed began in 1940 (this was significant because importation of sugarbeet seed was stopped at the beginning of World War II).
- Introduction of mechanization of thinning and harvesting.
- Agronomic practices included: experimentation in crop rotation; sugarbeet herbicides and disease resistance in varieties.

## **THE TRANSITION FROM THE FARMER & MANUFACTURERS SUGARBEET ASSOCIATION TO THE GREAT LAKES SUGAR BEET GROWER ASSOCIATION**

*By Stanley Gettel*

My knowledge of the Farmers & Manufacturers Sugarbeet Association (F & M), began when I was first elected to the Sebewaing Sugarbeet Growers Association in 1968. I have been told the F & M began in the late 1930s, likely following the organization of the various local boards which took place around 1934. Early membership included the Michigan growing areas, several of which no longer exist (such as Alma, Mt. Pleasant, Lansing etc.), as well as several areas in Ohio and those in Wisconsin, Indiana, and Ontario.

As the title indicates, F & M was much more than a growers' group. As I recall, the office contained a grower representative, company representative, researcher director, and an advertising and public relation person. These activities were done jointly. Some of the well known people in these areas were Loren Armbruster, Dick Posthumous working for the growers, Perc Reeve worked for the Companies as their spokesman. Dr. Richard Zielke filled the research position and covering the Public Relation area for a period of time were John McGill and John Rummel. These individuals were some of the more recent and better known to me.

The grower representative worked much as our recent Great Lakes executives have, covering the legislative area and were very



*Stanley Gettel*

involved in the actual writing of the Sugar Bill and working for congressional support. They also assisted in local growing area issues from trucking problems to company relations. Labor issues were very important at the time and the government held annual hearings regarding labor conditions and set minimum pay rates both hourly and per acre. Testimony had to be given on behalf of our industry.

As I came on our local board and had the opportunity to attend the F & M growers' meetings (not as a voting member), each Association had only one voting director at that time (1968). Nine members were represented: three from Ohio and six from Michigan. By the early 1980s two Ohio associations had dropped out and the other plant owned by Great Western was having problems and eventually Great Western went out of business. This left only the Michigan companies, and with concerns over anti-trust and collusion issues, the companies decided this was not the correct organization for them. It was



decided to dissolve the organization entirely and our final grower annual meeting was held in August, 1982.

Prior to this final F&M meeting, the Michigan Sugar growers felt an organization to bring the five growing areas together on a regular basis was essential. The Presidents of the local associations were asked to draw up bylaws and articles of incorporation for such an organization. This organization was officially adopted in December of 1982 and named the Great Lakes Sugar Beet Growers Association. The first officers were President Stanley Gettel; Vice President Roy Hickey; Secretary-Treasurer Garnet Hoard; and Executive Board members John Heussner and Jack Tagget. It was decided to hire an executive to aid in the functions of the organization and Robert Young was named Executive Vice President.

Some other important growers who come to mind in the F & M were: Elmer Haines from the Caro association who was President for many years; Carl Yackle, a Sebewaing grower who was the F & M President for 4 years; John Heussner, a Croswell grower, who became President of American Sugar Beet Growers. Ralph Gilmore from Ohio was President of the F & M when it was dissolved.

## **GREAT LAKES SUGAR BEET GROWER ASSOCIATION—THE HISTORY**

*By Dick Leach*

Directors representing the Alma Sugar Beet Growers, Inc., Caro Sugar Beet Growers, Inc.,



*The six different presidents of the Great Lakes Sugar Beet Growers Association spanned 20 years from 1982 to 2002. Left to right (standing) Tom Zimmer; Don Keinath; Jack Tagget; Richard Maurer; and Stanley Gettel; Garnet Hoard (sitting).*

Croswell Sugar Beet Growers, Inc., Saginaw Sugar Beet Growers, Inc., and the Sebewaing Beet Growers Association, Inc. met in the F & M office to discuss the dissolution of the F & M and the reorganization of a new grower association. On December 14, 1982, the Great Lakes Sugar Beet Growers Association held its first meeting at the Bavarian Inn. Forty directors were present including Ohio growers. The Ohio growers were offered a membership after dues were paid the following year.

Robert D. Young was hired on January 18, 1983, as the Executive Vice President and Frances Schnetzler as a part-time secretary for the office at 320 Plaza North, Saginaw, Michigan.

On April 12 at an Executive Board meeting, they approved committees for the new association including a Political Action Committee (PAC). The Association served its members well in areas of contracting, seed selection,

research, political action, public relations, and youth programs.

In 1984, Michigan Sugar Company was sold to Savannah Foods and Industries, Inc. of Savannah, Georgia. Carol Middleton was hired as a part-time secretary for the association. In 1991, the Great Lakes' office was moved from the third floor (Michigan Sugar Floor) to the fourth floor, Suite 485, in the Plaza North Building. Bob Young retired and Richard E. Leach Jr. was hired.

In 1997, Imperial Sugar purchased Savannah Foods and Industries, including Michigan Sugar Company.

Michigan Sugar and the Great Lakes entered into a joint venture to explore the feasibility of a molasses de-sugaring operation in 1998. Pioneer Growers, Inc. LLC, was created to represent the growers' 50% share of the Michigan Molasses Alliance. After all costs were known, it was determined the venture was not feasible. At a special meeting in the Spring of 1999, the directors voted to discontinue the project.

In the Winter of 2000, Imperial invited the growers to form a co-op to explore the purchase of Michigan Sugar. The growers formed a cooperative, Michigan Sugar Beet Growers, Inc., and on February 12, 2002, the purchase of the company was completed.

## **MICHIGAN SUGAR COMPANY BOARD OF DIRECTORS—TODAY**

As we look back at the history of the sugarbeet industry in the

*continued, page 24*

# SCHOLARSHIP RECIPIENTS

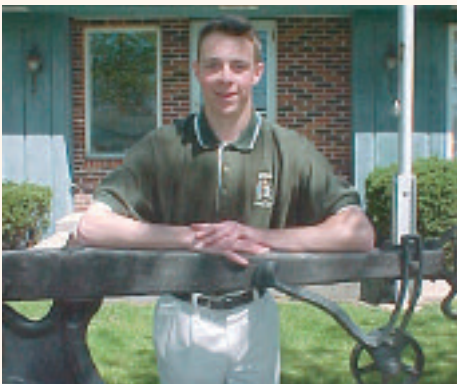
## 2002-2003



### ALBERT FLEGENHEIMER MEMORIAL SCHOLARSHIP

Michigan Sugar Company recently awarded the Albert Flegenheimer Memorial Scholarship to Jackie Ann Puvalowski, daughter of Claude and Denise Puvalowski, of Ruth, Michigan. The \$2,500 scholarship is presented annually in recognition of academic excellence and community involvement. Jacky Puvalowski is a senior at Ubly High School where she achieved a 3.83 grade point average. She is a member of the Student Council, Business Professionals of America, the 4-H, National Honor Society, and the Pom-Squad. She is also active in her church and community. Miss Puvalowski will be attending Michigan State University to pursue higher education in medicine.

Albert Flegenheimer was chairman of the board for Michigan Sugar Company from 1963 to 1970. His son, Ernest, created this scholarship in his memory. The Albert Flegenheimer Memorial Scholarship has been committed to providing financial assistance to high school seniors in the Michigan sugarbeet growing area since 1979. 🍷



### PHIL BRIMHALL MEMORIAL SCHOLARSHIP

The Phil Brimhall Memorial Scholarship has been awarded to Kyle Yackle, son of James and Sheila Yackle of Pigeon, Michigan. This is the second year this \$1,000 scholarship has been given to a high school senior. Kyle Yackle has achieved a 3.54 grade point average while being an active member of the National Honor Society and the FFA. He was awarded a Prestige Grower Award in the Sebewaing FFA/4-H program. Kyle will pursue higher education in computerized machine operation.

This scholarship is given in the memory of Phil Brimhall a long-time employee and Chief Agronomist at Michigan Sugar Company. 🍷

### History of the Michigan Sugar Grower's Association *continued from page 23*

Great Lakes area, we can understand many changes have occurred. Our industry has flourished for the past 100 years because of change. The sugar industry in the Great Lakes region, as part of the total sweetener industry, remains viable due to a law opposed by our very customers, the sugar users. For the industry to continue to be successful, it must have grower/ producers. Growers are the foundation of the industry. For the growers to continue growing, they must make a profit. The Co-op gives the grower a bigger share

of the sugar dollar. Growers no longer produce tons of beets—they produce pounds of sugar per acre and as a cooperative, growers can join with other growers without antitrust laws to worry about.

As the F & M became outdated, so has the Great Lakes Sugar Beet Growers Association. Growers, now organized through the Cooperative, can do everything the Great Lakes did, only now it can be done together—growers, Co-op administration, and labor. As local associations reorganize as local Co-op organizations local

programs should continue. The Board has approved the following committees: 4H-FFA, Public Relations, Political Action (PAC), Seed, and Grower Relations. The Co-op also has directors' participation on the American Sugarbeet Growers Association, Sugarbeet Advancement, and other trade organizations.

Michigan Sugar Company, the Co-op, and Pioneer Sugar—Locally Grown, Locally Owned, has a bright future. Our only limits are our imagination and our desire. 🍷



# MEET THE STAFF FOR MICHIGAN SUGAR COMPANY

Mark Flegenheimer is the President and Chief Executive Officer of Michigan Sugar Company. He has been with the Company since 1994 and reports to the Board of Directors for Michigan Sugar Company. Prior to joining Michigan Sugar Company, Mark worked for 11 years in New York City in the commodities trading business. Mark graduated from DePauw University in Greencastle, Indiana. Mark is a Trustee of the U.S. Beet Sugar Association and a Director of the Sugar Association, in Washington, D.C. He also serves on the Board of Trustees of the Saginaw Community Foundation. He and his wife, Anne, reside in Saginaw Township with their two children, Trevor age 8 and Katie age 7.



Jim Ruhlman is the Vice President of Administration. He oversees the general functions of administrative service departments including Management Information Services (MIS); Human Resources (HR); Purchasing and Safety; reporting to Mark Flegenheimer. He received his B.S. degree from Saginaw Valley State University in Data Processing with a minor in Business. Jim has been employed at Michigan Sugar Company for 19 years. Jim and his wife, Dawn, reside in Freeland with their four children, Nicole age 15; Matt age 13; Joe age 11 and David age 9. Jim is active in coaching youth basketball and baseball programs and the education commission for Holy Spirit Catholic Church.



Herb Wilson is the Vice President of Operations reporting to Mark Flegenheimer. He has been employed by the same company for 37 years, despite numerous ownership changes. Herb is responsible for the overall operations and maintenance at Michigan Sugar Company's six factory locations (Caro, Carrollton, Croswell, Sebawaing, Findlay and Fremont). He also coordinates operation reporting data and supports factory staffs. He attended Santa Anna College studying engineering. Herb and his wife, Gail, reside in Saginaw Township. They have three grown children, Kristin; Jeff and Bethany.



Robert Braem is the Vice President of Agriculture reporting to Mark Flegenheimer. He has 21 years experience at Michigan Sugar Company with a B.S. degree in Crop and Soil Sciences from Michigan State University. Bob is responsible for coordinating the agriculture department activities to assist our grower/owners in efficiently producing high quality sugarbeets. He also oversees receiving and storing the crop to ensure maximum sugar recovery. He is active in the Tuscola County Economic Development Board; Almer Township Park Board; St. Paul Lutheran Church Council and Board of Fellows at Saginaw Valley State University. Bob and his wife, Jane reside in Caro and have two boys David age 17 and Mark age 14.



Denis Boissonneault is the Chief Financial Officer reporting to Mark Flegenheimer. His responsibilities include managing all finance, treasury and accounting functions. Denis received his B.A. and M.A. in Business Administration from Saginaw Valley State University. He is active in the community as treasurer for "Our Littlest Angels" golf and bowling tournaments; past chairman of Covenant Healthcare Foundation; past president of the Saginaw Exchange Club and member of the SVSU Annual Fund Committee. He is a lifelong resident of Saginaw.



*continued, page 26*

# MEET THE STAFF FOR MICHIGAN SUGAR COMPANY

*continued from page 25*



Jeff Adamo is the Director of Human Resources reporting to Jim Ruhlman. He received his B.A. from Saginaw Valley State University and a M.S. in Administration-Human Resources from Central Michigan University. Jeff has oversight responsibility for the Human Resources function including recruiting and employment; compensation and benefits; employee and labor relations; policy development and administration and governmental compliance issues. He is active at St. Stephen Catholic Church in the school committee and Parent Advisory along with many of this children's activities including t-ball, basketball and school activities. Jeff and his wife, Lynette, reside in Saginaw Township and have two daughters, Justine age 7 and Elyse age 5.



Chris Dunham is the Director of the Management Information Systems reporting to Jim Ruhlman. She is responsible for all computer systems functions including managing and planning system hardware and software projects and setting the Information Systems staff's priorities while keeping a customer-focus of providing accurate and timely information to management. Chris has her B.S. degree from the University of Michigan in Computer Science. Chris together with her husband, Dave, reside in Caro and have two children, David age 7 and Emily age 6.



Sherrie Geitman is the Director of Purchasing reporting to Jim Ruhlman. She is responsible for the procurement of maintenance; repair; operating and packaging supplies for all facilities totaling more than \$27 million annually. Sherrie works closely with the facilities on inventory management and is the liaison for all purchasing and inventory issues. She has an associates degree in office management at Delta college with continuing education toward a B.S. in Business Administration. Sherrie and her husband, Greg, reside in Hemlock and have two children, Brandon age 7 and Tyler age 5.



Richard Leach is the Director of Community and Government Relations and reports to Mark Flegenheimer. He oversees Michigan Sugar Company's involvement in community events and public relations, in addition to representing the Co-op in state and federal governmental issues. This involves working with grower programs such as Political Action Committee (PAC); 4H and FFA youth program and coordinates the "Pioneer Sugar" logo promotions. Dick and his wife, Sharon have three married sons. Rick and Chuck operate the family farm and Paul is a certified crane operator. His activities in the community include 34 years on the Spaulding Township board and as a member of the water board; also ten years on the State Farm Bureau Board.



John Yuill is the Controller and reports to Denis Boissonneault. He supervises all aspects of the accounting department including payroll, payables and financial reporting. John began his employment at Michigan Sugar Company in 1980. He received both his B.S. and M.S. degrees from Saginaw Valley State University and is a Certified Public Accountant. John and his wife, Chris, reside in Saginaw Township and have three children, Sarah age 20; Heather age 18 and Brad age 15.



**SALES PERSONNEL ARE EMPLOYEES OF IMPERIAL SUGAR COMPANY,  
SUGAR LAND, TEXAS, AND HOUSED AT THE GENERAL OFFICE IN SAGINAW, MICHIGAN.**

Barry Brown is the Vice President of Sales and Marketing reporting to the Executive Vice President of Sales at Imperial Sugar Company. Barry has been in the sugar industry for 26.5 years. He received his B.A. degree from Michigan State University. Barry's wife, Carol, is an instructor of foreign language at Nouvel Central Catholic High School and they have two grown sons, Jason who is a Captain and pilot in the USAF and Adam who is a Lieutenant and Doctor in the US Navy. Barry is active in the community as vice chairperson for "Our Littlest Angels" golf and bowling tournaments; board member for Covenant Healthcare Foundation; Hospitality House and Michigan Food Processors Association; Michigan Grocers Association and the Finance Committee at church.



Tony Moggenberg is the Manager of Production Planning. He is responsible for finished product operations and coordinating information flow between sales and factory personnel. Tony received a B.S. in Marketing with a concentration in Logistics Management from Central Michigan University. His tenure will be twelve years this December. Tony resides in Elwell with his wife, Holly, and children, Kelsie age 5; Seth age 4 and Owen age 2.



*Photos by Bublitz Photography.*

**Protecting Small Sugarbeets from Wind**

*continued from page 19*

longer the wind erosion protection will be present because more small grain residue remains on the soil surface for a longer period of time.

7. Broadcast micro-rates including UpBeet + Betamix (or Progress) will control spring-seeded oats, resulting in limited wind erosion protection. Banded applications of Nortron preemergence will also control spring-seeded oats in the row. I do not know the effectiveness of these herbicide programs on spring-seeded barley or wheat. These herbicide programs will **not** control fall-seeded small grains and Assure II or Select must be applied. 🌾

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# EFFECT OF VARIETY, POPULATION (STAND) AND NITROGEN ON SUGARBEET QUALITY IN MICHIGAN

*This paper was presented at the 31st Biennial Meeting (Agriculture) of the American Society of Sugar Beet Technologists in Vancouver, British Columbia (2001).*

Have varieties changed over time in how they respond to production practices of increased stand or nitrogen application rates? To address this question, the following objective of the impact of nitrogen and stand (B/100) on three varieties' yield and quality in Michigan was determined. To address this objective the following research was conducted over three location-years in Michigan with two locations in 1998 at Weber location in Ruth and Stoutenburg location in Sandusky (Stout) and one location in 1999 at the Fogg location in Saginaw.

The experimental design was a RCBD with four replications with a three-factor factorial of split plot design. The factorial consisted of three commercially grown varieties, US "H20" (1970's), Hillehog "E4" (1982 to present—limited) and Hillehog "E17" (1996 to present);

(intended and thinned) populations of 130, 180 and 230 beets per 100 feet of row; and nitrogen rates of 80, 130, 180 and 230 pounds nitrogen per acre. Plots were two rows; row width of 28 or 30-inches; and 30-feet long before alleys were cut. Nitrogen and stand were split onto variety. Yield and quality data were collected with only quality data of %S (sucrose content), %CJP (clarified juice purity) and RWST (120-day slice equation) presented.

Results and summary will be given in order of RWST, %S and %CJP. The main effect of stand (B/100) combined over nitrogen and variety showed increasing RWST (Table 1) and % S as stand increased from 130 to 180 B/100, but no change from 180 to 230 B/100.

With an interaction of nitrogen by location (Table 2), the Weber location's RWST decreased with additional nitrogen applications from 80 through 180 lbs. nitrogen/A. Stoutenburg and Fogg locations had no decrease in RWST from 80 to 130; but

decreased RWST from 130 to 180 lbs. nitrogen/A. The Fogg location decreased RWST from 180 to 230 lbs. nitrogen/A.

Main effect of nitrogen decreased RWST (Table 2) and % S (Table 4) with all nitrogen applications. With improved genetics, varieties have increased RWST (Table 3) and %S (Table 5) at the Weber and Stoutenburg locations for all three varieties. At the Fogg location, E17 had higher RWST (Table 3) and %S (Table 5) compared to either E4 or H20.

Weber location's %CJP (Table 6) decreased at 80 to 130 lbs. nitrogen/A; %CJP at Stoutenburg and Fogg location decreased 130 to 180 lbs. nitrogen/A; and %CJP at Fogg location decreased 180 to 230 lbs. nitrogen/A.

Variety H20's %CJP (Table 7) decreased with all additional nitrogen applications. Variety improvement has maintained %CJP (Table 8) with nitrogen rates 80 to 130 lbs nitrogen/A for E4 and E17. Variety improvement has maintained %CJP with nitrogen rates 130 to 180 lbs nitrogen/A for E17.

**TABLE 1**

**The main effect of stand (B/100) on RWST, %S and %CJP combined over varieties, nitrogen applications and locations.**

Stand B/100	RWST	%S	%CJP
130	253.4	18.1	92.3
180	256.7	18.3	92.5
230	257.6	18.3	92.7
LSD (0.05)	2.7	0.1	0.2


**TABLE 2**

**The interaction of nitrogen rate and location for RWST combined over varieties and stand (B/100).**

Nitrogen (lbs /A)	Weber RWST	Stout RWST	Fogg RWST	AVG RWST
80	280.9	266.3	251.2	266.2
130	274.3	262.0	248.6	261.6
180	264.4	253.3	234.2	250.6
230	259.3	250.5	225.5	245.1
LSD (0.05)		5.4		3.1



In conclusion, varieties have changed over time, but they all responded similar to increasing stand of 130 to 180 B/100 improving RWST, %S and %CJP for

H20, E4 and E17. However, variety E17 maintained %CJP at higher nitrogen applications. *TMC* 

**TABLE 3**

**The interaction of variety and location for RWST combined over stand (B/100) and nitrogen application.**

Variety	Weber RWST	Stout RWST	Fogg RWST	AVG RWST
H20	252.5	241.5	230.1	241.4
E4	272.6	258.6	232.7	254.6
E17	284.1	273.9	256.9	271.7
LSD (0.05)		5.4		3.1

**TABLE 4**

**The main effect of nitrogen rate for %S combined over variety; stand (B/100) and location.**

Nitrogen (lbs/A)	%S
80	18.7
130	18.5
180	18.0
230	17.8
LSD (0.05)	0.2

**TABLE 5**

**The interaction of variety and location for %S combined over stand (B/100) and nitrogen applications.**

Variety	Weber %S	Stout %S	Fogg %S	AVG %S
H20	17.7	17.6	16.9	17.4
E4	19.0	18.8	17.1	18.3
E17	19.5	19.5	18.3	19.0
LSD (0.05)		0.2		0.1

**TABLE 6**

**The interaction of nitrogen rate and location for %CJP combined over variety and stand (B/100).**

Nitrogen (lbs /A)	Weber %CJP	Stout %CJP	Fogg %CJP	AVG %CJP
80	94.2	92.4	92.6	93.1
130	93.7	92.2	92.5	92.8
180	93.6	91.7	91.5	92.3
230	93.2	91.6	91.0	91.9
LSD (0.05)		0.4		0.2

**TABLE 7**

**The main effect of variety for %CJP combined over nitrogen; stand (B/100) and location.**

Variety	AVG %CJP
H20	92.2
E4	92.2
E17	93.1
LSD (0.05)	0.3

**TABLE 8**

**The interaction of nitrogen rate and variety for %CJP combined over stand (B/100) and location.**

Nitrogen (lbs /A)	H20 %CJP	E4 %CJP	E17 %CJP	AVG %CJP
80	93.1	92.6	93.4	93.1
130	92.4	92.6	93.4	92.8
180	92.0	91.9	93.0	92.3
230	91.5	91.6	92.6	91.9
LSD (0.05)		0.4		0.2



*By Dick Leach,  
Director of  
Community and  
Government  
Relations*

The President signed the Farm Security and Investment Act of 2002, Public Law 107-171, (better known as the "Farm Bill") into law on Monday, May 13<sup>th</sup>, 2002. Thanks to the media, this is the most misrepresented and misunderstood farm law in modern times. Fortunately, the majority of Congress and the President understand the importance of food security and the importance of agriculture to the rural economy of America. In 1996, the Farm Bill passed the House by just nine votes. In 2002, it passed the House by 139 votes. The cost of the 2002 bill is essentially equal to the cost of the 1996 Farm Bill plus emergency and market loss payments. Approximately 22% of the total Ag. Budget goes to production agriculture and the balance to other programs such as school lunches, WIC (Women, Infants and Children), and other programs (See Figure 1).

The U.S. sugar industry fared well in this Farm Bill with several issues being addressed to assure a viable market for the growers and a stable sugar supply to the consumers for the next six years: (1) Repeal of the sugar loan forfeiture penalty, (2) Elimination of the marketing assessment (this was suspended for fiscal years 2000 and 2001 only to resume for years 2002 and 2003), (3) A sugar

marketing allotment when determined to be necessary by the Secretary of Agriculture following the guidelines in the law. The Secretary has announced marketing allotments are in effect for the 2002 crop beginning October 1<sup>st</sup>, 2002. Any sugar produced over our allotment could go to fill other processors' allotments who are having a production year lower than their average.

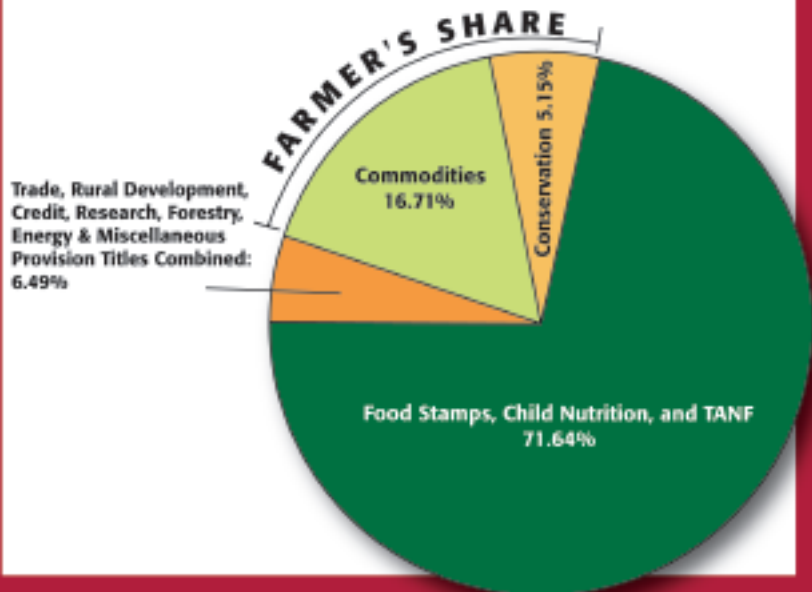
Mexico remains a challenge as of this writing. Their sugar industry is in economic shambles with half of their sugar mills being owned and operated by the government. The strong Mexican union and the local economy where cane is grown is highly dependent on the sugar industry. Mexico wants to export all of its excess sugar to the U.S. The U.S. corn growers

want to sell High Fructose Corn Syrup (HFCS) to Mexico, but Mexico has more sweeteners than it needs. The Fox administration states for each pound of HFCS imported from the U.S., the U.S. will need to import a pound of Mexican sugar. Each country has a negotiating team working out an agreement. Ray VanDriessche, a Monitor grower and the past president of the American Sugarbeet Growers Association, is a member of the U.S. team. I am very confident an agreement will be negotiated in the best interest of both countries.

I wish you all a safe harvest and a great crop. 🍷

FIGURE 1

Farm Bill Spending by Title FY 2002-2011

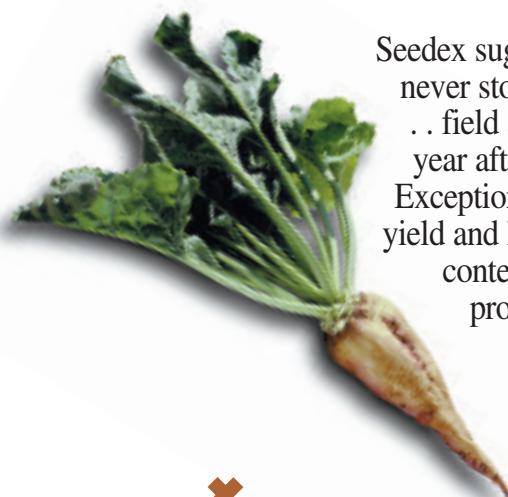




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## **PIONEER NEWSBEET**

**Fall 2002**

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