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Generating Research and Extension to meet Economic and Environmental Needs: a plan from the Michigan plant industries to generate new research and educational program to meet a wide range of economic and environmental needs identified by growers and processors.

Sugar Beet Production and Project GREEEN — A Sweet Deal

A few years ago, sugar beet production in Michigan did not look so good. Yields were down by four or more tons per acre from previous years and sugar beet seedling emergence was poor. Profitability for producers had diminished. Producers began putting their acreage into other crops, much to the dismay of the sugar companies.

To turn this situation around, the Sugarbeet Advancement Committee was formed. Now in its third year, this committee — made up of sugar beet growers, university and private researchers and specialists, and sugar company representatives — has seen success, and Project GREEEN funding has been part of it.

At the recent Michigan State University Bean and Beet/Sugarbeet Advancement Research Tour in St. Charles, Steve Poindexter, MSU Extension district sugar beet agent, explained the turnaround seen in sugar beet production and the sugar industry in Michigan.

"We have formed one of the best working relationships that I've experienced in all the years I've been in Extension. Through the Sugarbeet Advancement Committee efforts, the private [sugar] companies were pulled together with the public university and growers," he says. "The committee serves as an unbiased source of information and education for collecting data, conducting research and getting it to the producer. It's really exciting when you target a problem, then see everyone going in the same direction and communicating with one another to solve the problem or make changes."

A Real Plus For The Industry

Bob Braem, vice president for agriculture at Michigan Sugar Company, sees the efforts of the Sugarbeet Advancement Committee as a real plus for the industry.

"The Sugarbeet Advancement Committee has larger research and demonstration plots that the sugar companies and the university can't have," he says. "It fills a much needed area of research for the growers. This cooperative effort includes the right people to do the right type of work to aid growers, which, in turn, aids the companies."

Paul Pfenninger, vice president for agriculture at Monitor Sugar, says the accelerated research pace and the subsequent information the research generates boost the ability of producers to grow better sugar beets.

"The key thing is the growers have volunteered to do this [research] because they can see firsthand what their efforts produce," he says. "It's done on their soil, under their conditions and with their equipment. This promotes interest in better production and brings results. Producers must be successful for us to be successful. The Sugarbeet Advancement Committee has been a huge success."

John Spero, who began growing sugar beets at 12 years of age, chairs the Sugarbeet Advancement Committee and says that the cooperation level of everyone involved with the committee and the research has been excellent. He feels the committee is still in its infancy, but getting better every year.

"I get excited when I see what's been going on," he says. "We've needed this in the industry for a long time. All these groups had never been tied together before, but once it was done, they all rallied behind it. We don't gain individually unless we all work together."

Braem, Spero and Pfenninger compliment Poindexter on his ability to coordinate and manage the efforts of the Sugarbeet Advancement Committee. They say the educational meetings and the speed at which he has been able to get useful data to producers have been exceptional.

"As an example, there has been excellent data generated on Cercospora leaf spot [a fungus that attacks beets] this year," Pfenninger says. "Without Steve's and the committee's efforts, that information couldn't have gotten as widespread as it did in a such short amount of time."

Improved Sugar Beet Production

Poindexter says Project GREEEN funding has also helped the efforts to improve sugar beet production considerably.

"As we look at what's going on here at the research farm, if it had not been for Project GREEEN funding, we would not have an additional 40-acre farm where we've brought university and private researchers together to target and work on particular production problems we have," he says. "That funding is extremely critical to the success of the sugar industry in getting these problems solved."

One of the major issues is seed emergence. A 50 to 60 percent emergence rate is not acceptable — it means an added expense in overplanting. By working with various tillage systems and keeping good soil moisture to the seed, the Sugarbeet Advancement Committee has identified ways to improve emergence, which include working the soil shallower, planting earlier, working with better emerging seed varieties and identifying those varieties that are poor emergers.

Planters that space seed correctly and proper configuration of the press wheels to plant seed are also key to good production. Seed treatments, especially the use of the new pelleted seed, and special pregermination treatments that enhance seed emergence are also important production tools.

One of the main goals of the Sugarbeet Advancement Committee was to increase production of sugar beets to create more tonnage and profitability for the growers and the sugar companies. This year saw a record sugar beet acreage contracted in Michigan, and the state is looking at one of the best yields since 1990.

The Sugarbeet Advancement Committee is going to be broadening its on-farm test sites and research, all the while focusing its efforts to address the major issues in sugar beet production.

"What we are trying to do is different from 'normal' research in that it's on a grower's farm on larger strip trials and they're replicated and randomized research to give us grower conditions," Poindexter says. "We have a full load this year — more than 18 on-farm trials — that we have to get out in a month's time. We are always looking at the aspect of expanding, but right now we are concentrating on production."

One aspect of sugar beet production that the committee is considering is the use of genetically enhanced (transgenic) sugar beet varieties. At present, the public is apprehensive about these types of crops, and this keeps growers from taking advantage of the benefits of growing them.

"From a grower perspective, genetically enhanced crops carry a very big benefit — less labor going into the crops, like spraying or the possibility of using fewer pesticides — and giving the farmers a better chance to make a profit from their investment into the crop," Poindexter says. "Currently there are genetically enhanced corn, soybeans, cotton, etc., being used successfully. We are looking at that aspect in sugar beets, particularly the Roundup Ready varieties. The ability to spray Roundup or Liberty on the crop would be a tremendous boon to the farmer, as it costs less and makes for less labor. There aren't a lot of materials [pesticides] we can use on sugar beets like other crops, so this possibility is an exciting one for producers."

Poindexter says the support of Project GREEEN has been an important part of the work done by the Sugarbeet Advancement Committee.

"We are really excited and thankful that the funding was available," he says. "We are really going to get a lot of use from the research it has allowed us to do — and the industry continues to improve."

For more information about the Sugarbeet Advancement Committee or the research it is conducting, contact Poindexter at 517-799-2233.

For more information on Project GREEEN or for additional copies of this newsletter, contact Robin Millsap, Project GREEEN information officer, at 517-432-1555 or e-mail millsapr@msue.msu.edu.