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Corn silage harvest well underway
Silage project yields data
dairies have come to depend on

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WILLIAMSBURG, Pa.—Unbiased results, improved varieties, real world conditions. These are just some of the reasons professional dairy managers, like Bill England, have come to rely on the PDMP Corn Silage Hybrid Project when making decisions about what to plant.

With around one-third of the corn grown in Pennsylvania being harvested for silage and a multitude of corn varieties to choose from, the expanding PDMP silage trials on dairy farms have become a dependable source of decision-making data.

“Since PDMP started the trials, I have been pretty much going by the results of those plots,” says England. “I think this project has been really good because the plots are in different areas, so you get a good average. I usually look at what’s doing best overall and basically choose my hybrids by milk per acre.”

The silage project is in its seventh year, and two years ago England joined the list of cooperators, hosting a trial plot at his Weeping Hollow Dairy Farm in Blair County. For 30 years he has also kept a plot for his own trials, where he compares the varieties he plants.

Altogether, there are PDMP silage project cooperators in six counties. In addition to the Blair County locations, are: Lynn Eberly’s Mt. Pleasant Farm, Franklin County; the Young family’s Keystone Ventures Red Knob Farm Unit, Lancaster County; the Jeff Morse Farm, Bradford County; Logan Bower’s Pleasant View Farms, Perry County; the Ulmer family’s Guided-Path Farm, Centre County, and the Steve and Stanley Brubaker Dairy, Tioga County.

The silage project is led by PDMP’s research and development committee, in partnership with Penn State University’s crop and soils science department under the leadership of Greg Roth and FORAGEdata, the developer of the system that turns the data into meaningful information.

“The best part of this project is the ability to use the information to choose corn that makes silage that best fits the producer’s needs, whether he’s focusing on high starch, high energy or looking at yield per acre,” notes project chair Dave Hileman, Tyrone.

“We work very closely with Penn State and use their planter and harvester, which does the sampling uniformly and efficiently,” he explains.

Another benefit, says Hileman, is location diversity. “Most of the university trials are pretty much in one location, where the PDMP trials are conducted over more than six locations. This replicates results out in the field under actual growers’ conditions (i.e. soil types, fertilizing practices, manure, etc.) versus a more controlled environment. There is a lot of realism to these results and since we do this over a couple years, we get some concrete information.”

England agrees. He likes to look at how varieties do for a couple years “instead of taking a chance on one year’s results,” he explains. “With this silage project, we get the multi-year data. That history helps in seeing the consistency of performance.”

England milks 580 cows. Most of the corn silage is stored in bunkers with a few uprights for long-term storage. He kernel processes the silage and hires a custom operator to harvest one-quarter of the crop by opening the strips.

“I’m primarily a silage grower, most years we don’t harvest corn for grain,” he says. “I focus on digestibility. That’s a very important part of it. I look at the amount of lignin. But I figure it all comes down to the milk per acre. This silage project helps improve the varieties we have to work with.”

Steve Brubaker, Westfield, also cites the benefits of getting digestibility data from the silage trials. He milks 120 cows and grows 200 acres of corn, of which 130 go for silage. He is a PDMP member and has cooperated in the silage project for about three years now.

“How digestible it is for the dairy cows, that’s what we’re interested in, because it’s very important to how we feed our cows here,” says Brubaker. “I haven’t seen many other trials that really look at digestibility.”

Brubaker tends to plant leafy corn silage varieties that are more digestible, and he focuses on a quality harvest. His goal this year is not to have to buy corn.

“Feed costs are a big issue right now,” he adds. “We’ve acquired some more acres to grow additional corn for grain, but the higher digestibility silage also helps with that.”

At Pleasant View Farms, Blain, Logan Bower looks at a combination of factors when using the results of the silage project to make his planting decisions.

“I look at starch digestibility and milk per acre, with the yield factor as a part of that,” Bower reports. “I don’t look strictly at yield because there are these other factors to take into consideration.”

Bower milks 530 cows and feeds a high forage ration that runs heavier on the corn silage. He purchases his grain, devoting his 320 corn acres to silage production.

“The more we can maximize energy in the corn silage, the less grain we have to buy,” he explains. “That’s one of the reasons the PDMP plots are so valuable. They help me look at digestibilities—the starch levels and energy levels.”

Of course corn silage quality also depends on other variables. “We’ve struggled here this year with weather conditions,” notes Bower. “We’ve not had the timely rains other parts of

the state have had. We try to time the harvest to get the optimum moisture level, then during harvest we try to make it a speedy process, but also focus on making sure the silage is packed into the bunker correctly.”

According to Jeff Morse, Canton, “everybody’s needs are a little different. Some dairies need to focus on yield because they need the tonnage. But for me, digestibility is number one because I can cover more acres. If I plant a variety that doesn’t ton as well, I have the acreage to go that direction.”

The number of hybrids in the silage project has increased from 40 in 2002 to 131 in 2008, and seed brands from 12 to 22.

“With this project, companies really put their best varieties forward,” Morse observes. In addition to having his own 50-cow dairy, he is also a nutritionist and a seed company representative. He plants all his corn acreage for silage and has a custom operator harvest it.

“I figure if I harvest higher quality forage, I’ll use less grain corn and less protein supplement. With grain prices where they are, forage quality is a huge attribute, and I’ve always found a high forage diet to be healthier for the rumen,” says Morse, who is in the process of transitioning his herd of Holsteins, Jerseys and Ayrshires to a purebred operation. “More forage in the diet helps with longevity. I’m looking at income per acre.”

The results of the 2008 corn silage trials will be released during the Nov. 6 PDMP Issues Forum at Ar-Joy Farm, Cochranville, and also at the Penn State Dairy Nutrition Conference Nov. 12-13.

The results are released on a web-based system that enables PDMP members to select sort criteria and compare hybrids from different companies on an equal scale.

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