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Coat your corn?

New technology a perfect early-plant fit for busy farmers with cold soils. See page 8.



Coat your corn?

New technology expands planting and harvest. ■ By Mike Wilson and John Vogel

This fall, a handful of corn growers in Maryland, New York and Pennsylvania finished harvesting corn two to three weeks before their neighbors even started. Their secret: Early hybrids were planted into cold soils two to three weeks earlier than normal using a special seed protectant coating with a built-in temperature switch.

"If my father was alive and saw me planting these heavy soils on the fourth of May, he would have disowned me," laughs Paul Almeter, Strykersville, N.Y. "When he was farming, absolutely no one would plant silage hybrids until the first week in June or later, because the seed wouldn't emerge."

Almeter has good reason to be jovial as he drives his pickup from his home down the back road to his family dairy in western New York. On this early August day, he pointed out his 7-foot-tall corn crop, dwarfing his neighbors' crop by a good 3 feet.

Fast forward to late September.

Ron Souder, New Kingstown, Pa., was watching the combine finish the last of his 22% moisture corn, as a farmer-trucker pulled up and stopped. "I've been watching that field all spring," noted the visitor. "How can I get a couple bags of that corn?"

"That corn" reached harvest moisture almost three weeks ahead of the rest of Souder's corn and that of his neighbors. "I planted it on March 25," explains Souder. "It came up 37 days later, weathered 3

inches of snow, a freeze, water ponding and was made before Hurricane Isabel blew through."

Two years ago, both farmers began experimenting with early plantings coated with a protective polymer called "Intelliccoat." The coating protects the seed underground until warm soil temperatures trigger the coating to dissolve at 55 degrees, and allow the seed to germinate.

This year, Almeter achieved near-normal yields on 100 acres of corn silage while other farmers, who were forced to wait out the summer's torrential rains, saw yields slashed in half from late planting.

Souder also "grew" this year's acreage based on last year's success amid south central Pennsylvania's drought. "The 105-day corn came up 20 days after planting," he recalls. "We had three frosts on foot-tall corn. But it came back without major stand loss. It pollinated in June — before the hot weather, and started to mature in late July. It averaged 97 bushels an acre. That's significant for corn in a severe drought."

"Our corn was knee high by the Fourth of July and some of our neighbors' hadn't come out of the ground yet," says Paul Almeter, shown in early August with corn planted in early May vs. mid-June.

EASES A DAIRYING DILEMMA

Waiting for soil dry enough to plant often drags right into haying season on most dairy farms. "Planting corn and making hay (and milking cows) at the same time is a nightmare," says Almeter. "The workload is doubled





In late September, Ron Souder was pleased with his March-planted corn. "It's quite dry, and yielding about 137 bushels an acre."

Almeter's experience was similar. Rainy spring weather the last two years dropped conventional untreated stand to 84%. In one of last year's extremes, two conventional hybrids planted at 33,000 seeds per acre suffered a 43% emergence loss, while the early-planted coated hybrids emerged at 30,000 plants.

This year, not planting early would have brought disaster. "It rained and rained — worse than last year," he recalls. "There were two fields we couldn't plant again until the 17th of June, then

it rained again."

But come haying time, Almeter had 100 acres of corn in. "Most of the neighbors had zero planted. They couldn't get out there."

Both farmers report kernel protection in soggy, cold soils. In early June, Almeter dug up kernels in areas where the water had pooled. "Some kernels were just sprouting. The coating protected the seed, or it would have been completely rotted in the soil."

"If you can seed oats, you can probably plant corn," says Souder. "If you can't get on the ground early, forget about using coated seed," he

advises. But he sees the biggest advantages on lighter gravelly or shaley soils that tend to warm early, but lose their moisture quickly in early summer.

For 2004, Souder plans to increase his early-plant corn, teaming up the Roundup Ready trait with Intellicoat over a pretreated insecticide such as Poncho, Gaucho or Cruiser. "I might even try a round or two in mid-February," he hints.

COST ANALYSIS

Almeter and Souder contend the \$12 premium per bag of Intellicoat-coated corn is easy to justify. At \$24 per silage ton value, Almeter figures the coated seed saved him \$240 an acre on 100 acres last year.

"We usually get 20 tons [of silage] per acre," he says. "Last year because of the rain, we got about 12 ton per acre on uncoated seed acres."

Souder, too, considers the \$12 cost as cheap insurance. "And for \$3 more, I could use Poncho at the 1,250-rate. I wouldn't need a planter box insecticide, and I'd be handling corn bags and nothing else."

KEY RECOMMENDATIONS

Consider these tips from Almeter and Souder:

- Prepare fields this fall so they're ready to plant next spring.
- Stick with early-season hybrids having more cold vigor for quicker emergence.
- Use hybrids with the flex-ear trait, to ensure yield potential.
- Forget coated seed where you can normally early plant in warm, well-drained soils. ♦

up. The tractor you need for chopping and hauling is tied up on the corn planter. It's a real dilemma."

The last two years of rainy spring weather only made things more difficult for upstate New York dairymen. Putting corn in around mid-June takes a toll on yields, even for corn chopped for silage, contends Almeter, who farms in partnership with his brother Michael and his brother's son-in-law, Richard Kranz.

PLANTING/HARVESTING WINDOWS

Protected seed can substantially broaden your planting window — without significant population losses, contend both farmers. Ultra-early corn planting also makes it easier to get all your corn planted more timely — with the same planter, points out Souder. Getting early hybrids harvested early provides a much better window for fall manure application, fall seeding and alfalfa planting, he adds.

His harvest populations for the coated corn averaged 93% of his planted populations in 2002 and 89% in 2003 — within the expected range for normal stand losses, he adds.

Despite more extreme conditions,

Where to find coated corn

Intellicoat is only available on specific hybrids, and only delivered precoated. You can't just buy hybrids and have seeds coated later if the weather turns bad. Intellicoat is only available now from Fielder's Choice Direct, Beck's Hybrids, Ag Venture and Hubner Seed, says Bill Gass, vice president of marketing with Landec Ag, maker of the coating technology.

"About 30 companies have tested the technology this year. By year's end, we'll probably hear from more seed companies who want to use it on certain hybrids," he notes.

For more information, contact representatives of these seed companies, or contact Landec Ag at (800) 241-7252. ♦

Plant corn in March?

Give neighbors something to talk about and watch.

Now that I've got your attention, I must throw in this disclaimer: I don't advocate sowing high-priced seed into snow or even into frozen fields. But as a few farmers in Maryland, Pennsylvania and New York already have discovered, there's new seed technology coming into the Northeast that puts a temperature "switch" on every kernel, telling it when to start growing. It has awesome potential — which I'll let the farmers in our cover story explain.

Four years ago at a technology summit for our Farm Progress editors, I learned about Intellicoat, a polymer-based seed coating developed by Landec Ag. After 31 years and thousands of "sales pitches," I rarely get excited about new technology — without seeing it work. This one grabbed me, knowing what every seed corn kernel must overcome just to sprout and start growing in cold, wet soils of the Northeast. I suggested, back then, to the company official that the greatest potential for the seed coating — assuming it worked — would be in the Northeast. But, hey, what does an editor know, right! At that point, they saw the greatest potential in places like Indiana, Landec's back (and front) yard. You have to appreciate their marketing logic: More farms + bigger



corn acreage = more sales revenue. And at that point, they planned to test the coatings only on Fielder's Choice corn hybrids, which Landec owns. For 2004, the coating technology is also being marketed by Beck's Hybrids, Ag Venture and Hubner Seed. As far as I know, Fielder's Choice and Hubner are the only brands available in the Northeast this year. While we advocate the technology's potential, we don't endorse any company's product. Corn genetics still are the biggest yield determiner. If this technology proves as good as it seems to be, seed "switches" will be widely used.

BEST HYBRIDS COME LATER

Ten years ago, seed companies moaned and groaned about our request for new hybrid information in October. Today, most have their "new hybrid" lineups in sales literature long before they fill the first seed bag. Their "really new" numbers aren't on that early list. They won't be mentioned until production in their Hawaiian or South American fields is "in the bag." In this issue's new hybrid roundup, you'll find a mixed bag of both.



JOHN VOGEL
EDITOR