

Wider planting window boosts yield

By Tim Hoskins

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Instead of purchasing a larger planter to work more acres in a day at the optimum time, Duane Roland of Grinnell is using a technology that allows him to plant in cold soils.

The Central Iowa farmer uses a temperature-sensitive polymer coating, which allows him to plant as much as four weeks earlier than normal without the risk of chilling injury to the seed.

The temperature-sensitive coating — Intellicoat Early Plant — was developed by Landec Ag in Monticello, Ind.

Roland, who grows 750 acres of corn and soybeans in Poweshiek County, has been using Early Plant for three years and will be using it again this spring.

He says he experimented with the coating the first year he used it.

“It worked just fine,” Roland notes.

The main benefits Roland has seen using Early Plant on his seed corn is being able to slow down during planting and still get his seed in at the optimum time.

Going slower during planting allows Roland to get better seed placement. He plants with a six-row Kinze.

He says to see the full benefit, a farmer should

plant Early Plant seed either before to the first half of the optimum planting window.

The coating will delay emergence by two or three days, Roland explains. However, if you plant it after the end of the optimum planting window, it puts those seeds behind.

“You don’t want to get stuck with a delay,” he says.

To compensate for that, Roland orders only a portion of his seed order with the coating.

He orders about three days worth of seed coated with Early Plant. Roland figures there will be two to three days of good weather that will allow him to plant before the optimum window.

The Early Plant-treated seed is drier at harvest, he says. Yields are comparable to those with non-treated seed.

Roland says the treated seed was about two points dryer with a yield of 206 bushels, which was his farm’s average.

When using the coated seed, Roland advises others to use it on the lower-yielding acres. The best ground can be saved for the non-treated seed.

That way, the best ground can be planted at the optimum time. Hopefully, overall yields would increase, he reasons.



Contributed photo

A temperature-sensitive coating over seed corn called Intellicoat Early Plant developed by Landec Ag in Monticello, Ind., delays emergence and lengthens the planting window.

Steve Otilie, president of Otilie Seed in Marshalltown, says this is the first year his company will offer Early Plant.

He has been testing Early Plant for two years and has used other Intellicoat coatings in his seed business.

Last year, Otilie did a triple-replicated test with three planting dates: April 4, 25 and May 25.

The April 4 planted trials used treated and non-treated seed.

He says the yield and moisture were about the same in strips planted on April 4. Otilie found no difference between the April 4 and April 25 plantings.

However, the May 25 planted corn yielded 37 bu./acre less and moisture was 10-12 points higher.

The strips demonstrate the importance of planting at the optimum time.

Otilie regrets he didn’t have a planting date in early to mid-May to see when the yield drop-off occurs.

Overall, he sees the Early Plant coating as a possible benefit for no-till farmers because they generally must wait longer because their soils take longer to warm than some conventional fields.

Otilie says the coating also could help farmers achieve more-uniform stands.

The coating works by temperature. When the soil reaches 55 degrees, the coating becomes permeable and germination begins, he explains. However, he says some seeds germinate at different temperatures.

Corn hybrids can start germinating when soils reach 48 to 50 degrees, Otilie says. With the coating controlling germination up to 55 degrees, growth would start at the same time and emergence would likely be more uniform.

The coated seed should be planted only up to one month earlier than the optimum planting window, Otilie warns.

The cost of the coating on 10-20 percent of the seed should be figured over the entire farm because it improves the planting timing of the entire farm, he says.

Otilie says it is too late to order Early Plant for this season.

In a December survey sponsored by Landec Ag, 78 percent of the corn growers (3,057 respondents) said they’ve been forced to plant at least some of their corn after the optimum date for their area.

Survey participants mentioned soil conditions and competition from other farm activities or off-farm responsibilities as reasons for delayed planting. But, they cited bad weather as the main factor by an overwhelming margin — 94 percent.

Survey results show timely planting is a pervasive problem for corn growers regardless of operation size or planter size, Landec Ag CEO Tom Crowley said in a news release.

Landec markets the Intellicoat Early Plant coating through seed companies.

Some of those companies include: Otilie Seed; Horizon Genetics of Mason City, Ill.; Legend Seed of De Smet, S.D.; Fielder’s Choice Direct of Monticello, Ind.; Dyna-Gro Seed, a division of United Agri Products of Greeley, Colo. Landec owns and operates Fielder’s Choice Direct.

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