

NewsWatch

Beans: Early planting pays

By DON McCABE

IN 2008, Dan Aspegren had his doubts about planting soybeans on April 30, considering the cool, wet conditions. Fall harvest dispelled those doubts and solidified his opinion on early planting.

"It was amazing," the Geneva producer says of the early beans that yielded 81 bushels an acre vs. soybeans planted more than two weeks later on May 19 that produced 77.5 bushels. "We got a good stand."

Aspegren has been a cooperater in the Quad County On-Farm Research project area of York, Clay, Fillmore and Hamilton counties, but 2008 was the first time he tried soybeans planted that early. On a pivot-irrigated quarter, he had alternate 12-row, field-long strips of the early and late beans, planted at 155,000 seeds per acre.

He already favors planting the crop earlier than most farmers do, usually in early May, but last year's results will push him even earlier. "We'll plant April beans if we can," he says. He will use two planters so he can get started on corn and soybeans at the same time.

Aspegren is avoiding what Jim Specht, University of Nebraska-Lincoln agronomist, calls the "soybean yield

At a glance

- On-farm research and UNL studies show gains with early beans.
- Geneva farmer sees a yield hike despite a cool, wet spring.
- Fungicide seed treatment recommended for early beans.

penalty" of planting too late. Here's what Specht found at Lincoln test plots in 2003 and 2004: "For every day of delayed planting after May 1, your yield will drop, from a range of ¼-bushel per day in a bad year, to ⅜-bushel each day in a good year." Specht's plots were irrigated.

A two-week delay, at the low range of Specht's findings, means a yield loss of 3.5 bushels, but it jumps to 8.75 bushels at the top range.

In the 2008 Quad County planting date project, which also was under irrigation and included two additional fields, yield increases generally averaged 2 to 3 bushels per acre with the earlier date, says Jenny Rees, Clay County Extension educator.

"With better seed today, cold is not so much a risk," Specht says. "No longer do you have to wait until soil temperature reaches 50 degrees to plant."



AVOID PENALTY: UNL's Jim Specht wants soybean producers to avoid the yield penalty of planting too late.

But with cold, wet soils, especially in no-till, he recommends a fungicide seed treatment to overcome the potential for poor stands due to diseases.

UNL specialists also recommend an insecticide seed treatment for early-planted soybeans, which are susceptible to early-season bean leaf beetle. "I'm not as concerned about the bean leaf beetle feeding as much as I am about it being a carrier of bean pod mottle virus," Specht adds.

Planting dryland beans this soon poses a bit more risk. An early variety planted too soon could result in the crop being harmed by an August drought.

Specht says the higher yield potential from early-planted beans offsets the cost of seed treatments.

Paul Jasa, UNL soil engineer, says

the higher-yielding promise is enough to offset costs of having your beans custom planted, or an additional planter or drill to get soybeans planted at the same time as corn. "It makes economic sense to consider custom planting or additional equipment purchase if you typically finish soybean planting in early June, even late May," Jasa says. "Custom planting rates for soybean planting are \$12 to \$15 an acre and only 2 extra bushels at \$8 a bushel covers that cost."

"When I ask producers for a calendar date that they usually begin corn planting, most will give me a specific date, say around April 15," Specht says.

When I ask them the same question for soybeans, they almost invariably say, 'When I get done with corn planting.'

Sunlight, moisture, nodes and early beans

FOR corn, the adage "knee-high by the Fourth of July" was buried years ago. For soybeans, Jim Specht wants farmers to use a new one: "All green to the eye by the Fourth of July."

The UNL agronomist recommends planting soybeans early, based on his research and on-farm research projects in several Nebraska locations. He cites two key reasons: to capture more sunlight and to conserve soil moisture, both of which are tied to a quicker closing of the crop canopy.

"The earlier the soybean planting, the earlier canopy closure occurs. The canopy intercepts all light, so none falls on the ground," he says. "Moreover, when sunlight is not intercepted by the leaves, it is intercepted by the soil surface, leading to evaporation loss from a warmer soil. Lessening soil water loss means more water goes to your crop for transpiration."

Sunlight is the energy the plant uses to convert the carbon in carbon dioxide into carbon the plant uses to make carbohydrate, protein and oil, he explains.

Specht says UNL researchers also found that soybean plants add one new main stem node every 3.7 days after the first trifoliolate appears until seed development begins. "A node is where the flowers, then pods, then seeds in those pods are produced. Delay planting one week and, bingo, your crop just lost an opportunity to have two nodes on its main stem."

He makes a final point. "For zero risk of a late frost on late-April beans, a general rule of thumb is to plant no earlier than 14 days before the historical date of the latest spring frost in a given area." For instance, if that date is May 10, plant no earlier than 14 days before then, around April 26.



EARLY BIRD: Dan Aspegren, already a believer in early-planted soybeans, may put them in even earlier in 2009.