

Field Study

Dry spring helps plants establish significant root system

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SHABBONA, Ill. — Farmers should be careful about using the lessons they learn during the 2012 crop year.

"This is not going to be the year to choose hybrids, varieties or what management we want to do," said Emerson Natziger, University of Illinois Extension crop production specialist. "Because we hope the lessons from this year won't apply next year since we are facing a challenge from weather that we don't normally face."

Natziger, speaking during Agronomy Day at the U of I Northern Illinois Agronomy Research Center, discussed the planting date study which has been ongoing at the center for seven or eight years.

"We do this because it teaches us a lot about corn and how it responds to management," he said. "It also demonstrates what we can expect as corn comes under different stresses represented by different planting dates."

At the center, corn for the trial was planted on March 29, April 19, May 9 and May 29.

"The crop we have growing out here is a testament to the soils we have and the way we manage them," the U of I specialist said. "We were able to get the crop planted early, and we planted in good soil conditions."

A dry spring does have some advantages, Natziger noted.

"There is no loss of nitrogen, the crop has almost no diseases and it has an outstanding root system," he said.

However, due to the drought, the deterioration of the crop rating has been straight



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Emerson Natziger, University of Illinois Extension crop production specialist, shows one of the corn plants that came from the planting date study at the U of I Northern Illinois Agronomy Research Center. During Agronomy Day, Natziger discussed corn and soybean research trials, as well as the drought that has affected a large portion of the U.S.

down since June 1, Natziger said.

"You're in good company if your crop is under stress because that is true over most of Illinois," he reported. "Central and southern Illinois are worse on average than northern Illinois."

Producers should keep an eye on the crop color as the dry conditions continue.

"The beginning of the end

"The doomsday scenario for corn is the tassels get out, shed their pollen and it never falls on silk because it doesn't come out — that's severe drought," he said. "It was worst in southern Illinois as the tassel never appeared because there wasn't enough water to push it out the top of the plant. That's pretty much the end."

In 2005, Natziger recalled, the corn plant in north-central Illinois didn't put out a tassel or silks.

"When it rained, the plants tasseled, silked and produced a little yield," he said. "Corn under certain conditions can suspend growth for a little while and when it rains come on."

"The dry spring was an advantage for soybeans, as well, because once a crop gets its roots down in the water, it's pretty tough to kill in these soils," he reported. "I expect we're going to have a crop as long as the canopy stays there."

The good news is the game doesn't end early for soybeans.

"We could have rainfall at the end of July and soybeans come back to life," the specialist said. "They add more flowers, pods, and we can still have decent yields."

Natziger discussed the soybean Yield Challenge project from the past two years. The Illinois Soybean Association initiated the project and asked producers to plant two, 10-acre plots.

The challenge was to compare their standard management to a plot that had additional inputs and evaluate the difference in yields.

"We required them to use the same variety on both plots, and the most common things on the challenge plots were the use of fungicide plus insecticide," Natziger said. "There were from 60 to 70 comparisons, and for the north part of the state in 2010, there was a 1.7 bushel gain and in 2011 the gain in the north was 2.9 bushels per acre."

The university also has evaluated planting dates for soybeans starting in mid-April to early-June at seven sites.

"At about the 75-bushel yield levels, with the earliest plantings from mid-April to early-May, the yields didn't change much," Natziger reported. "Yields started to decline with plantings during May."

Therefore, he said, under good yield levels, it doesn't pay to wait to plant soybeans.

"Plant your corn first, and if it's still fit, keep going and plant your soybeans," he advised. "I don't think there's a danger to plant soybeans during the last 10 days of April."

In a research trial conducted in 2010 and 2011 at the center, a wide variety of products were applied to soybeans.

"We tried everything, we used 40-some products and treatments," Natziger explained.

The trial evaluated seed treatments, nitrogen, potash, micronutrients, fungicides, insecticides and growth regulators.

"The fungicide was the only one that gave a 4-percent yield increase. Nothing else changed the yields very much," Natziger said. "I think a lot of these are comfort applications."