Research scientist advises delaying corn planting in stressful years

November 5 2015, by Kay Ledbetter

Dr. Qingwu Xue, Texas A&M AgriLife Research plant physiologist in Amarillo, shows the difference between corn planted on May 18 and hit by hail and insects and a June 17 planting that avoided much of the damages. Credit: Kay Ledbetter

A wet spring filled with hail storms brought challenges to this year's corn crop, some that a Texas A&M AgriLife Research scientist said could have been avoided if planting was delayed by a couple weeks or more.

Dr. Qingwu Xue, AgriLife Research plant physiologist in Amarillo, said he did not intentionally start out emphasizing planting dates on his corn studies. But what he saw on his hybrid trials near Bushland showed what a tremendous difference the planting date can make in a stressful year.

Xue said he generally plants anywhere from three to five different corn trials on the AgriLife Research farms around Bushland, including some comparing hybrid production under different irrigation rates and others for chemical efficacy.

"It seems every year the Texas High Plains presents its own unique challenges," Xue said. "Some years it is drought, but this year was a historically wet year that included hail storms and insect and disease problems."

He planted corn on four dates this year. The first two planting dates were May 18 and June 3. A hailstorm with severe wind struck on June 14 and caused losses of up to 60 percent of the stand on the May 18 planting.

"But because the growing point of the June 3 planting was still below ground, corn plants simply resprouted and we lost very few plants," Xue said.

The third and fourth planting dates were June 17 and June 19. The June 19 planting was a replant of some of the May 18 trials that were severely hail damaged, he said.

"Two hail storms in early July caused some damage to the corn planted on June 3, however there was little to no stand loss for corn planted on June 17 and June 19," Xue said, adding the last two plantings produced the best corn they saw this year in their trials.

"So planting dates really did make a difference," he said. "If you get the

hail damage in the early vegetative stage, you don't get as much damage to yields, but if the plant is already big, you get greater stand damage."

Additionally, the side-by-side plots of corn suffered various insect attacks, primarily grasshoppers, as well as earworms and fungal diseases, Xue said.

He said among his trials was a comparison of the different hybrids for their protection against ear damage from disease and insects.

"Producers need to make sure the hybrid they are buying has a good ear protection trait included in it, because we saw a clear difference between hybrids this year with all of the heavy insect and disease pressure," he said.

This corn hybrid exhibits good ear protection traits. Credit: Kay Ledbetter

"What we learned this year is just don't rush to plant your corn too early," he said. "The traditional planting dates in this area are late April or early May. However, corn we planted on June 19 is still the best corn we got this year.

"I would say if you would delay your planting date, you can avoid some of the heavy hail damage that can accompany spring storms."

Xue said, however, that producers who decide to delay their planting date should be mindful of the hybrid they plant.

In a neighboring plot, under the same conditions, another hybrid exhibits disease and insect damage. Credit: Kay Ledbetter

"You don't want to use the long-season hybrids; 120-day corn is probably too risky with delayed planting," he said. "If your corn is under full irrigation or well-watered, the longer-season hybrids have the greatest

yield potential.

"But in years when the weather is drier and you only can use limited irrigation or you are delaying planting, you should use a mid-season or short-season hybrid and it will give you more flexibility in your operation."

Provided by Texas A&M University