

FIRST LOOK

DROUGHT-TOLERANT CORN IS HERE

Seed companies are bringing hybrids to market that may expand the Corn Belt into “water-limited” areas.

PHOTO: JIM PATRICO

Pioneer and competitors Monsanto and Syngenta are developing natural and transgenic hybrids that will change the playing field in how corn performs in dryland and drought conditions. Syngenta plans to release a limited number of its Agrisure Artesian “water-optimized” hybrids in 2011.

Better drought tolerance will increase yields of dryland corn while giving growers confidence to grow corn in water-limited environments.

Pioneer has announced the availability of Optimum AQUAmax hybrids as soon as 2012. These hybrids belong to a new generation of hybrids billed to deliver a yield advantage in water-limited environments.

“Improved stability of yield under drought stress combined with yield parity under optimum conditions is the goal,” says Jeff Schussler, Pioneer senior research manager for maize stress product development.

But don't expect significant jumps in yield immediately. In Pioneer trials, the first releases displayed a 5% yield advantage over other leading contemporary competitors and Pioneer hybrids. So, if you are producing 100-bushel

corn in arid parts of the Corn Belt, that is 5 bushels. Still, at \$5 a bushel, it's an extra \$25 per acre. Optimum AQUAmax hybrids in the pipeline offer a yield advantage for growers in chronic water-limited environments.

Pioneer will sell these seeds under the Optimum AQUAmax brand. Initially, it will focus sales on the rain-limited regions of Kansas, Colorado, Texas and Oklahoma. Limited quantities are available for 2011. Pioneer's next generation of drought-tolerant products will build upon native tolerance and transgenic solutions. These products should be available mid- to late-decade.

Steve Padgett, vice president of technology with Monsanto, says the company is field-testing its first transgenic drought trait. Monsanto is measuring a 5 to 10% increase in yield in the western Corn Belt.

“We are on track,” says Padgett, “to get regulatory approval for the first trait in 2011.” This will be followed by stacked approval and extensive on-farm testing beginning in 2012. In the meantime, Monsanto continues to release hybrids in the western Corn Belt that have natural tolerance to drought.

No-Tillers **RISE**

USDA's Economic Research Service recently crunched some numbers on no-till practices in the U.S. Here's what they found:

35% Just more than a third of U.S. cropland (35.5%), or 88 million acres, planted to eight major crops had no-till operations in 2009. The crops—barley, corn, cotton, oats, rice, sorghum, soybeans and wheat—constituted 94% of total planted U.S. acreage.

1.5% No-till has been increasing for corn, cotton, soybeans and rice at a median rate of roughly 1.5 percentage points per year.

45% Soybean farmers had the highest percentage of planted acres, with no-till accounting for 45.3% of planted acres in 2006 and projected to be nearly 50% in 2009.

29% No-till was estimated to be practiced on 29.5% of corn acres in 2009.

23% Cotton farmers practiced no-till on an estimated 23.7% of planted acres in 2009.