Bred For Success: Helping Farmers Work Smarter

(NAPSA)—Most Americans have probably never thought about it much, but farming in the 1920s wasn't a sophisticated process. It was a job requiring long days in the fields with modest equipment. At that time, the world's population was only 1.5 billion. By 1940, the population had reached 2.3 billion and traditional farming methods could not sustainably feed the population.

Science In Agriculture

Today, we face the same problem on a much larger scale. How do we feed a growing population while using less land to produce higher yields? The answer may well lie in agriculture's next science revolution—analytics.

The centuries-old trial-and-error method of crossbreeding plants is no longer optimal. Sustainably increasing productivity is no easy task, but plant breeders are on a hunt for seeds with inherently higher yields.

"People typically talk about the art of plant breeding," said Joseph Byrum, head of soybean seed product development for Syngenta. "We're interested in the science."

That may be one reason Syngenta was recently named winner of the Franz Edelman Award for Achievement in Operations Research and the Management Sciences. The win was for the company's "Good Growth Through Advanced Analytics" entry, which focused on soybean breeding.

With new tools that took more than four years to develop, the company's soybean breeding team uses advanced mathematics and new technologies to develop higher-yielding soybean varieties. Through increased genetic gain—the rate at which a breeder makes genetic improvements to yield—the program is improving soybean variety accuracy, selection intensity, genetic variation and generation time.

Scientists modernize plant breeding process to help farmers have higher crop yields.

This means these new breeding tools allow for the creation of soybeans that inherently produce higher yields and farmers seeing seeds that can deliver a new level of results.

In fact, when the Soy Capital Ag Services, an independent organization, tested 20 soybean varieties, these NK soybeans dominated field trials, taking the first-, second- and third-place wins for highest yield.

"Before we began using these tools, we realized that an average annual increase in yield across our soybean varieties was about 0.8 bushels per acre," said Byrum. "That average is now closer to 2.5 bushels per acre. This new approach is truly transformational for our industry."

Learn More

For further information, visit www.syngenta-us.com.