

# SCIENCE IN OUR LIVES

## Advanced Breeding Techniques Today Help Farmers Produce More Corn Tomorrow

(NAPSA)—Farmers today are achieving substantially higher corn yields than their fathers and grandfathers before them.

While much of today's greater bounty can be attributed to top-yielding genetics with tolerance against stress, disease and insects, combined with the latest technology traits, advanced breeding also plays a critical role.

Advanced breeding techniques, such as molecular breeding, can identify specific plant genes that are linked to improved crop performance. It has greatly increased the ability of DEKALB® corn to enhance breeding efficiency and helped speed innovative, high-yielding products to farmers. In fact, many farmers who planted DEKALB corn over the past two years experienced a significant yield advantage due to advances in seed genetics alone, with 8.4 bushels per acre more corn, on average, than those who planted other brands.

The next new gene that will help a corn farmer in the Midwest may not be found in U.S. plants. It may come from across the globe, and breeding programs can access that. "Our global germplasm pool is one of the largest in the world and allows us to consistently provide U.S. farmers with seed choices containing the highest-yielding genetics," says Robb Fraley, Monsanto chief technology officer. "Through advanced breeding, we've identified thousands of genes, which has led to new technology in each bag of seed that would have been impossible just five years ago."



**Scientists look inside corn grains to identify top-performing genes that help farmers maximize yield.**

Seed breeders are armed with everything from patented robotic automation technology to MRI equipment to evaluate corn seed for desirable characteristics, such as oil and protein content. "This allows us to literally look inside the corn grain and find that one gene with the ideal composition," Fraley explains.

What does this mean to the U.S.? More top-yielding products for greater farm productivity and the ability to bring these products to market much faster. "Advanced breeding has helped us enter a period where we will see two to three times the historic rate of gain," Fraley says. "As a company focused 100 percent on agriculture, we are dedicated to providing U.S. farmers with innovation and superior performance they can count on for many years to come."