



# *The Future of Plant Breeding* **New Methods on the Horizon**

As advancements in breeding methods continue to be made, we are now exploring the application of **gene editing in the development of seeds.**

Scientists have relied on selective breeding to create genetic variation in plants but now with gene editing tools like **CRISPR**, we can generate this genetic variation more quickly and with more precision than ever before. Many changes introduced by gene editing are small modifications and can be similar to variations that are already present in plant genomes or similar to the variations that naturally occur in a plant's DNA. While small, these changes can have significant impact enabling scientists to:

- » **Support more efficient development of beneficial traits, such as improved flavor or nutrition**
- » **Deactivate unfavorable traits, such as disease vulnerability**
- » **Break genetic linkages between positive and negative traits, creating plant varieties with the most desired characteristics**

