

SAFETY OF NEW FOOD CROPS: FROM FIELD TO MARKET

DYK?



Whether produced through traditional plant breeding, or through newer innovative breeding methods like gene editing, all new plant varieties go through rigorous testing for safety and quality before their seeds are ever sold to farmers. This includes everything from federal oversight and state laws, to plant breeder, grower and food company standards.

FDA OVERSIGHT

The U.S. Food & Drug Administration **regulates** all food, regardless of how it's produced.

- Does it meet the standard of safety?
- Are labeling claims true and not misleading?



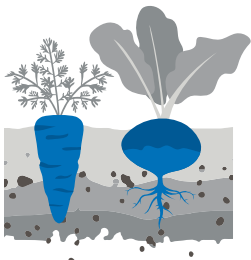
FEDERAL SEED ACT & STATE SEED LAWS

Commercial agriculture seeds are regulated under the **Federal Seed Act** and state seed laws.

- Mandated quality standards include comprehensive, science-based preventive controls across the food supply.
- All seed must meet purity and product characteristic claims



PLANT BREEDER FIELD TRIALS



New plant varieties are **tested** on multiple sites over many years before being introduced into agricultural practice.

Test trials range from a few locations in a year to several hundred locations.

Typically testing is done for 5 or more calendar years prior to commercialization.

- Is it consistent and uniform?
- Can it stand up to environmental stresses?
- Is it free of disease?

INDUSTRY BEST PRACTICES

- Does it meet end-user needs?

For example: protein content for soybeans, bread-making characteristics for wheat, cooking quality for rice, and flavor for fruit.

- Does it meet processor needs?

For example: milling quality for wheat, sugar yield for sugar beets, oil quality for canola, and storage characteristics for fruits & vegetables.



NOTE: GMOs go through an additional and extensive regulatory review process involving the USDA, EPA and FDA.

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PROMOTING THE DEVELOPMENT OF **BETTER SEED** TO
PRODUCE **BETTER CROPS** FOR A **BETTER QUALITY OF LIFE**