
Plant Breeding Basics



Many of the Foods Today Are a Result of Breeding Innovation



Teosinte To Today's Corn



Mustard Plant To Today's Cauliflower And Broccoli



Crop Domestication is Genetic Modification



In the late 20th century, advances in technology enabled the expansion of diversity of crops. For years, university, government and company scientists intensively researched and refined this process. A major result has been GM seeds that maintain or increase the yield of crops while requiring less land and fewer inputs, both of which lessen the impact of agriculture on the environment and reduce costs for farmers.



Modern Breeding Brings the Best From Plants Together More Efficiently

Breeding can improve plant health or provide consumer benefits. Here are a few ways breeding improves crops:

- Disease Resistance
- Insect Resistance
- Water Utilization
- Plant Health
- Improved Harvest
- Shelf Life
- Color
- Flavor
- Size



What Goes into a Great Vegetable

Vegetables are among the most nutritious foods available, but **taste**, **texture** and **convenience** are keys to increasing consumption.



Sensory Experience



Convenience

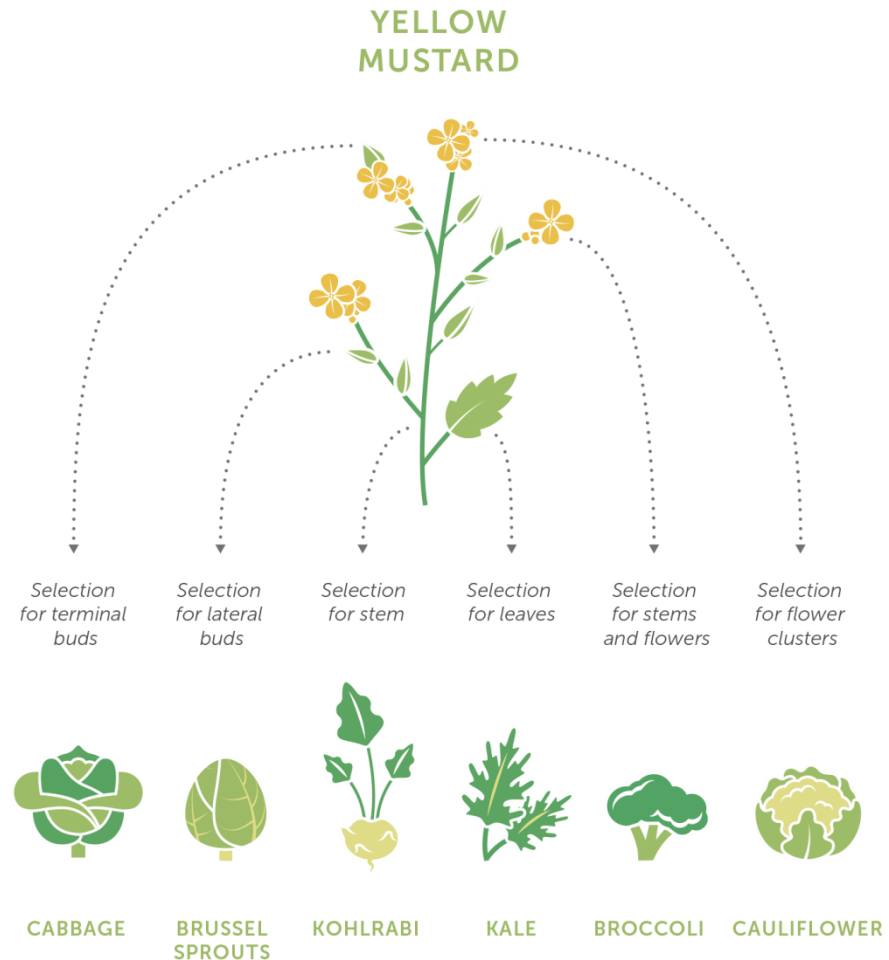


Nutrition & Health



The Evolution of Crop Improvement Building on Genetic Diversity

Farmers have intentionally changed the genetic makeup of all the crops they have grown and the livestock they have raised since domestic agriculture began **10,000 years ago**. Almost every fruit, vegetable and grain that is commercially available today has been altered by human hands, including organic and heirloom seeds.



Improved Flavor and Color Builds Consumer Appeal

Wild tomato traits bred into commercial varieties for sweeter taste



Phytophthora Resistant Peppers are Improving Crop Production



Advanced breeding gives pepper varieties resistance to one of the most destructive diseases



Extended Quality Watermelon

This watermelon **loses much less juice**, so is **less messy** when slicing, eating and storing after it is cut.

Ideal for **fresh-cut halves, quarters, slices and cubes.**



Sweet Tasting, More Convenient Mini Bell Peppers



Better Value

One third the size of standard bell peppers, at an equally affordable price point

Sweet Tasting & Crunchy

BellaFina® peppers are small in stature but their sweet flavor and crunchy texture are every bit as appealing as traditional colored bell peppers

Nutritious

Excellent source of vitamin C



Building Better Salads and Wraps with Frescada[®] Lettuce



A Sweet Tasting Lettuce

Very low in bitterness and crunchier than traditional Romaine

Greener Color and More Flavor

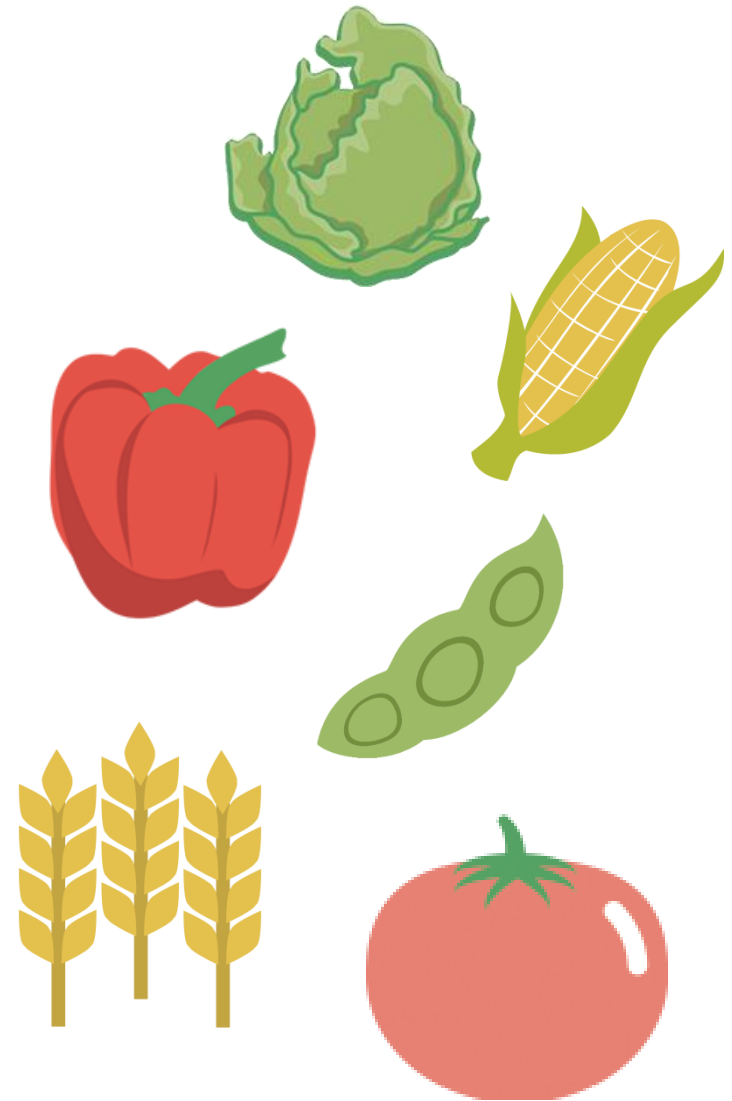
Compared to iceberg

Nutritious

246% of the folate and 174% of the Vitamin C in ordinary iceberg lettuce



**Breeding Will
Continue to be the
Foundation in
Achieving Healthful
and Delicious Meals**



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