Plantastic Discoveries

HOW DOES PLANT BREEDING CONTRIBUTE TO HEALTHIER DIETS?

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According to the Food and Agriculture Organisation of the United Nations (FAO)...

PLANT BREEDING IS ONE OF THE SHORTEST AND MOST EFFECTIVE ROUTES TO IMPROVING GLOBAL HEALTH THROUGH BETTER NUTRITION

Breeding can improve nutritional value of foods by increasing vitamins and minerals, antioxidants, fiber, and healthful oils.

But breeding also drives healthier diets by creating convenience!

Let's explore how!

PLANT BREEDING HAS SHAPED OUR DIETS FOR CENTURIES

Over the course of millennia, farmers have engaged in a meticulous process of **selective breeding** also know as domestication

wherein they carefully choose plants with desirable traits and cross them to produce offspring with those desired characteristics

A great example of this are

ORANGE CARROTS!

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Carrots used to be purple and yellow - not orange!

But a mutation that made pigment accumulate in the root, led to the orange colour we are most used to.

Orange carrots then became the preferred variety!

It is believed that the Dutch played a significant role in popularising orange carrots - as a tribute to William of Orange, who lead the Dutch revolt for independence.

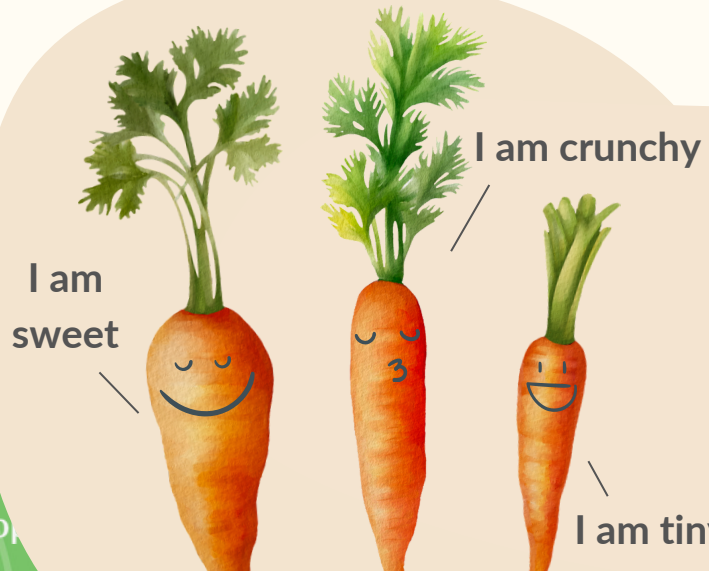
Over the years, farmers continued to select and breed carrots with orange roots, consistently favouring and cultivating orange-rooted varieties.

And then they went from healthy orange vegetable to convenient snack...

BABY CARROTS

Bite size carrots were an invention of Californian farmer Mike Yurosek, who in 1986 was trying to find ways to increase sales of carrots, and cut them with a bean cutter into nubs. He sent a bag off to a grocery store and immediately they were a hit!

Then breeders focused on breeding carrots that were smaller, sweeter and more crunchy so they could be turned into the perfect snack - and baby carrots were born!

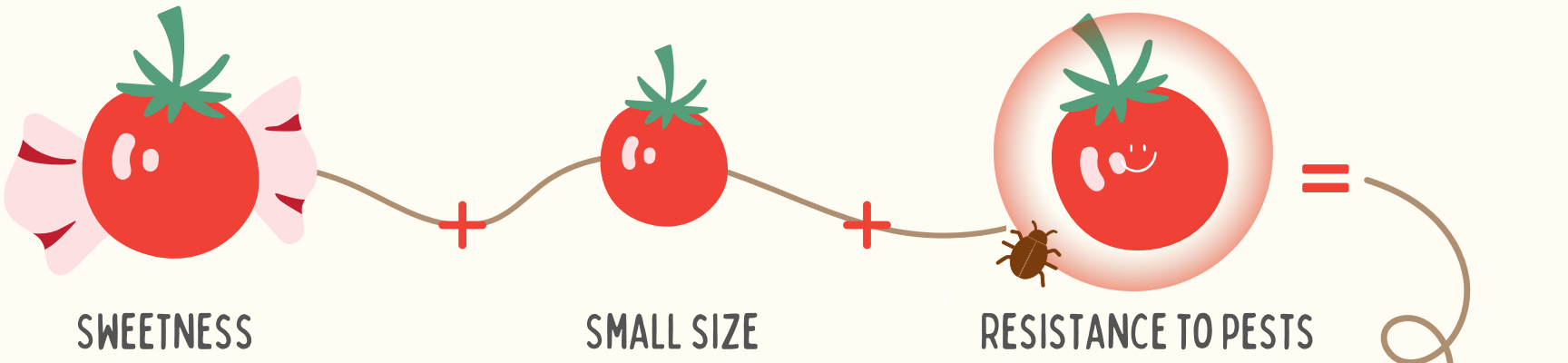


They selected parent plants that exhibited these traits and crossed them to produce offspring with a higher likelihood of inheriting those traits.

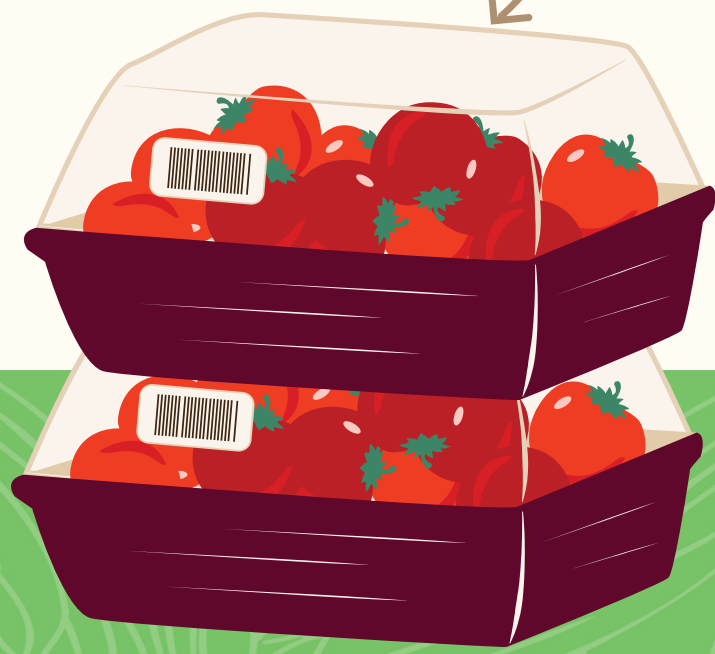
And the same has been the case with

CHERRY TOMATOES

This variety of tomato didn’t exist naturally. Different tomato varieties were cross-pollinated to blend traits like small size, sweetness, and disease resistance, resulting in the delicious cherry tomatoes we love today.



Through repeated cycles of breeding and selection, stable lines of cherry tomatoes have been developed!



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And the same has been the case with...

SEEDLESS GRAPES

This type of grape is cultivated through a process called parthenocarpy, which is the development of fruit without fertilisation. Plant breeders have selected and crossed grape varieties with this trait to produce the seedless grape cultivars that are commercially available today!

POP CORN

Popcorn originated from a specific type of corn called "*zea mays everta*." Through generations of selective breeding, ancient Indigenous peoples in the Americas developed this variety to have kernels that pop when heated. Plant breeders have since refined popcorn varieties to enhance traits like kernel size, shape, popping volume, taste, and texture.

THESE EXAMPLES ILLUSTRATE HOW PLANT BREEDING HAS CONTRIBUTED TO THE DEVELOPMENT OF A DIVERSE RANGE OF HEALTHY SNACKS, CATERING TO DIFFERENT TASTES AND PREFERENCES WHILE MAKE IT HIGHLY CONVENIENT AND EASY TO EAT NUTRITIOUS FOOD.

ASK US

🌱 Got questions about plant science & breeding? We've got answers!
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Ask your questions here:

tinyurl.com/bdzhepr9

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Baby Carrots - From Ugly Root to Adorable Snack Food