

HAVE YOU EATEN THIS PLANT BEFORE?



SANDY KNAPP (AUCKLAND MUSEUM), CC BY 4.0. CHANGES: CROPPED, BACKGROUND REMOVED.

 *swipe to find out*

YOU VERY LIKELY HAVE!



 *swipe to learn more*

EGGPLANT

MADE BY NATURE - GUIDED BY US

THE WILD ANCESTOR OF THE EGGPLANT PRODUCED SMALL, ROUND, BITTER FRUITS WITH TOUGH SKIN AND SHARP SPINES. THIS WAS THE REALITY OF WILD EGGPLANT THOUSANDS OF YEARS AGO.



THOUSANDS OF YEARS LATER



THROUGH DOMESTICATION AND GENERATIONS OF CAREFUL SELECTION, HUMANS GRADUALLY TRANSFORMED SPINY, TINY, BITTER FRUITS INTO GLOSSY PURPLE VARIETIES - SMOOTH, MILD, AND FLESHY.

READY FOR US TO ENJOY.

OLD TRAITS



- Very small fruits (2-5 cm), round or oval
- Extremely bitter taste (high alkaloid content)
 - Thick, tough skin
 - Large seeds in high numbers
- Heavy spines on stems, leaves, calyx
 - Low yields, fruits drop easily
- Grows as a hardy, branching shrub in dry habitats



NEW TRAITS

- Large fruits (10-30+ cm), elongated or uniform in shape
 - Mild taste, low bitterness
 - Thin, edible skin
 - Soft, tender flesh
 - Few to no spines
 - High yield, many fruits per plant
 - Diverse colours & forms
- Improved shelf life, less seediness

WHY WE CAN'T STOP HERE



MODERN BREEDING IS STILL NEEDED TO DEVELOP EGGPLANT THAT ADDRESS TOMORROW'S NEEDS BECAUSE:

- Heat & drought sharply reduce eggplant fruit set, making eggplant especially vulnerable to climate stress
- Bacterial wilt, Fusarium wilt & fruit borers remain major eggplant-specific threats.
- Bitterness still fluctuates due to unstable alkaloid levels.
 - Spines on stems persist in many cultivars.
 - Fruit shape, colour & gloss are still hard to stabilize.
- Seediness & flesh texture need refinement for diverse cuisines.
 - Soft postharvest fruit limits storage and transport.

BECAUSE THE EGGPLANT WE ENJOY TODAY WEREN'T BUILT FOR CURRENT AND FUTURE GROWING CONDITIONS. BREEDING GIVES US EGGPLANT THAT SETS FRUIT IN HEAT, RESISTS WILT AND BORERS, HAS FEWER SPINES, STEADIER BITTERNESS LEVELS, BETTER TEXTURE, AND STAYS FIRM AFTER HARVEST.