

Shape-Shifting Fruit

The magine biting into a sweet, juicy watermelon. Yum! Before this delicious fruit reaches your plate, it grows on a vine. The watermelon plant uses sunlight, water, and carbon dioxide from the air to make its own food through photosynthesis. Then the vine uses some of this food to make fruit. The watermelon fruit is oblong, like a squished circle. No, it's round like a ball. No, wait, it's . . . square?

Actually, watermelons come in all those shapes. The first watermelons were round. But they rolled around and got bruised as they traveled from farms to markets. In 1954, a scientist developed an oblong watermelon that was easier to stack.

In the early 1980s, Japanese farmers began growing square watermelons to save space. The farmers put

the melons in square glass cases as they grew. These square watermelons are the perfect size and shape for refrigerator shelves—and they taste just as good as the round ones!



It takes extra work to grow square watermelons.

Seeds or No Seeds?

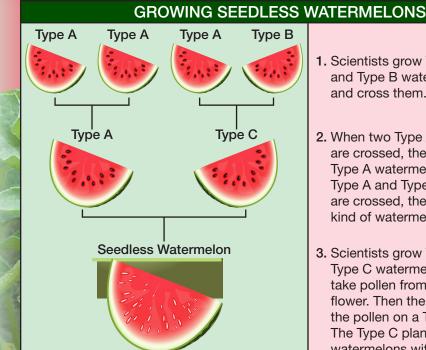
Long ago, all watermelons had big seeds inside. But today, most watermelons at the grocery store don't have seeds. Why not?

Watermelon plants have many kinds of cells. Some cells help the plant grow and develop. But plants also have many cells to help them reproduce. When living things reproduce, the offspring are a little different from their parents. Scientists use these differences to make seedless watermelons.

About fifty years ago, plant scientists took pollen, which plants use to reproduce, from one kind of watermelon. Then they put the pollen on the

flower of another kind of watermelon.

The plant that received the pollen made new watermelon fruits. Those fruits had seeds. Next. scientists planted seeds from these new watermelons. The seeds grew into plants. Scientists found that the fruit of these watermelon plants didn't have seeds. The seedless watermelon was born!



- 1. Scientists grow Type A and Type B watermelons and cross them.
- 2. When two Type A watermelons are crossed, they make more Type A watermelons. When Type A and Type B watermelons are crossed, they make a new kind of watermelon—Type C.
- 3. Scientists grow Type A and Type C watermelons. They take pollen from a Type A flower. Then the scientists place the pollen on a Type C flower. The Type C plant makes watermelons without seeds.

