## If seedless watermelons don't have seeds, how do we grow more of them?

Although seedless watermelons have existed since 1940, and have been widely available at grocery chains since the 1980s, they continue to pique the interest of consumers. A common confusion arises from the fact that there are no seeds in this fruit. Thus, if a seedless watermelon has no seeds, how do we grow a seedless watermelon plant?

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To understand how seedless watermelons are created, we first need to understand the term 'ploidy'. Ploidy is the number of sets of chromosomes that are present in every cell of an organism, and is referred to as 'x' (also sometimes referred to as 'n'). Humans are diploid (2x) because we have two sets of chromosomes. All standard seeded watermelons are diploid (2x). Seedless watermelons, however, are triploid (3x), as they have three sets of chromosomes.

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Seeds for planting triploid seedless watermelon plants are produced by growing the two parental lines (the tetraploid and the diploid) next to each other. Watermelons bear separate male and female flowers. All male flowers of the female parent are manually removed to make sure that the female parent does not pollinate itself.

Small-scale seed production is done by hand pollination. Large-scale seed production is done by growing them in cages or isolation blocks and introducing bees when they are flowering.

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