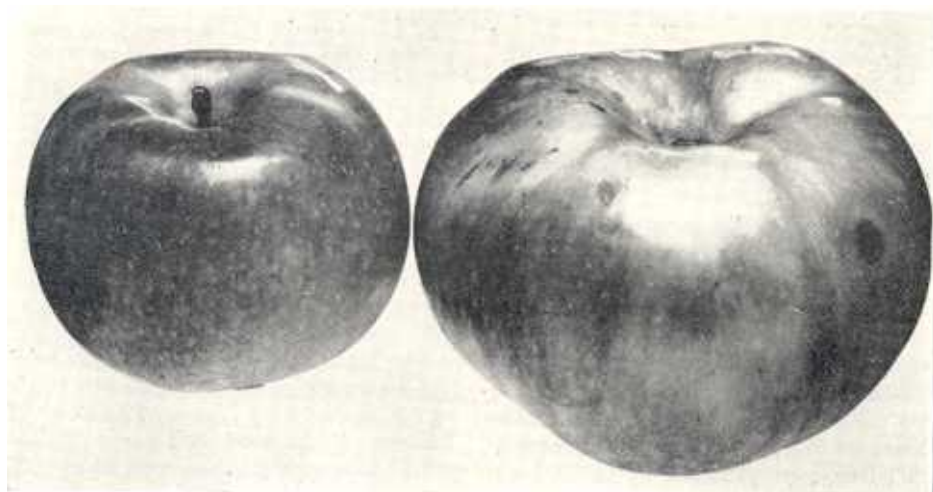




--Courtesy *Journal of Heredity*

FIGURE 1. NORMAL AND GIANT MCINTOSH

The fruits of 'giant' sports of apple are quite commonly characterized by large size, flattened shape, and irregularity of contour. (Our cut about one-half natural size.—J. C. McD.)

cine treatment. This was more difficult than on the cranberry, peach, and pear, and our results have been meager. The success reported here at least shows that colchicine can be effective in inducing polyploidy in the apple as in many other plants. However, to ensure success, a dozen or more trees of each variety may have to be treated; and a much longer period of time may be required before polyploidy in the apple can be detected and isolated. To facilitate earlier blooming and fruiting in the apple, it may be possible to put bud material to be treated in some dwarfing stocks.

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A Tetraploid Sport of Delicious Apple from Idaho

Thanks to Dr. Leif Verner of the Agricultural College, Moscow, Idaho, who sent us the material, we now have a large-fruited apple sport of the Delicious variety to be added to similar sports of McIntosh, Ontario, Wealthy, and Yellow Transparent varieties for breeding of triploid and tetraploid sorts. A study of shoot tips from budded material of this new sport in April, 1950, showed it to be tetraploid in all internal tissues and diploid in the epidermis; therefore, it is sexually tetraploid and ready for breeding on polyploid levels.

In England a pear variety, Fertility, is known to be self-sterile; a tetraploid sport of it was found to be self-fruitful. The Delicious variety of apple is also known to be self-sterile; whether tetraploidy has made this variety self-fruitful, like the tetraploid sport of the Fertility variety pear, has yet to be determined.

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