zumi calocarpa cross flowered in 1950. All of those flowering were set with known pollen, and the seeds from the better F_1 seedlings were planted. One of the BX_1 seedlings, resulting from an F_1 x Jonathan cross, fruited in 1953. Thus, the scab resistance of *M. zumi calocarpa* was advanced two generations from fruits 0.4 inch to 1.8 inches in diameter in only six years. The improvement in fruit quality and appearance was even more striking than the increase in fruit size.

The task of introducing scab immunity into the several standard apple variety types is a formidable one and will require the continued attention of cytologists, geneticists, horticulturists and plant pathologists. The early generation results indicate, however, that substantial progress can be made in relatively few years.

Two Blushed Strains of McIntosh in British Columbia

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The McIntosh apple was heavily planted in British Columbia at the turn of the century, when the commercial fruit industry was becoming established.

Many other old varieties which were planted at that time have since disappeared, but McIntosh has been the most important variety in this region throughout the years, and still represents 40 per cent of the commercial apple tonnage.

About 30 years ago, it became evident that most McIntosh orchards were producing two distinct kinds of fruit in respect to color. Many trees produced only fruit of a striped type which was relatively unattractive. Other trees produced apples having a solid red blush and no stripes, and these fruits were more attractive. Most of the latter trees, however, showed a marked tendency to sport from the blushed to the striped type. This sporting could be found on individual spurs, on twigs or on large limbs. When sporting from blush to stripe occurred on a portion of a tree, the characteristic remained constant on that portion, and no instance of reversed sporting, from striped to blushed type, has ever been observed in this region.

As long ago as 1928, the Summerland Experimental Station began testing blushed strains of McIntosh which it was hoped would not show a sporting tendency. Two strains were used in this experiment, the Rogers strain, originated on the farm of J. C. Rogers, Dansville, New York, and the Summerland strain, originated as a single tree at this Station.

Throughout the intervening 25 years of testing, both strains have produced fruit of the solidly blushed type, and neither has shown more than a very slight tendency to striped sporting. In 1944, the two strains were considered sufficiently promising to merit commercial distribution. Since then, 67,739 buds have been distributed by this Station, mostly in British Columbia. In a few instances buds have been sent to foreign countries as well.

At present, the two strains appear equally desirable, and only the future can decide whether either is superior in freedom from striped sporting, or in such other factors as winter hardiness and resistance to disease.