

New York's Food and Life Sciences Bulletin

New York State Agricultural Experiment Station, Geneva, A Division of the New York State College of Agriculture and Life Sciences A
Statutory College of the State University, at Cornell University, Ithaca

'NORTHERN LIGHTS' Apple

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INTRODUCTION

'Northern Lights' is a new apple variety that ripens in early mid-season (mid-September). It is large and 60 to 100 per cent of its skin is a glossy, attractive bright red. Its flavor is slightly tart, fruity-flavored and very good. In addition to bearing very good fruit, the tree is especially resistant to severely cold winter temperatures. In North Dakota where trees of the very hardy variety, 'McIntosh,' are often winter injured, 'Northern Lights' trees generally suffer less injury. 'Northern Lights' probably will be most useful for home orchards in severely cold regions near the northern limits of apple growing.

ORIGIN

The 'Northern Lights' apple originated from a 'Haralson' X 'McIntosh' cross made in 1938 at Geneva, NY. 'Haralson' ('Malinda' X open-pollinated) was bred and introduced in 1923 by the University of Minnesota where winter hardiness is an especially necessary trait for successful apple varieties.

'Northern Lights' was selected in 1947 from a family of 142 seedlings. It was the only outstanding seedling selected from the family for further testing and evaluation. During the testing period (1947-1990), it was designated as New York 17207. It was named and introduced in September 1990.

Testing the Selection NY 17207

The seedling bore its first fruits in 1947. Due to its good performance, it was immediately selected for further evaluation. In the summer of 1948, budsticks were cut from the original tree and rootstocks were budded with it. Four maiden nursery trees were planted into second-test orchards in 1951, seven were planted in 1952, four in 1966, and another nine in 1967. Thus, it has been extensively evaluated. Early fruiting in these second-test orchards showed the good performance of the variety and for this reason, nursery trees were propagated and sold by the New York State Fruit Testing Association, Geneva, NY for four years (1957-1960).

Although the over-all performance of this selection continued to be very good during the 1950s, its eating quality was only fair. In 1961, the decision was made not to name it at that time. However, because it had a very attractive appearance and other good features, trees of it were retained in the Geneva apple variety test orchards for 42 years.

During the period from 1957 to 1960, trees of NY 17207 were planted by R.L. Wodarz, Wyndmere, ND. In 1964 he reported "up to now, doing well. It is a fine fruit." Similarly, in June 1985, K.E. Parr, East Burke, VT stated that he also liked it. In North Dakota tests it was hardy, had good fruit characteristics, and bore annually. In that state, it proved to have interest as a possible release for home use.

Choosing the Name 'Northern Lights'

Since 'Northern Lights' was bred by Cornell University and because it showed good performance in North Dakota State University tests, it was jointly released by these two universities. Professor Boe proposed four possible names. From these, the apple breeding team at Geneva made the final choice of 'Northern Lights.'

Fruit Description

'Northern Lights' fruits are large, 3 to 3 1/4 inches in diameter; skin 60 to 100 per cent bright, attractive red, with conspicuous white dots; color pattern, striped; shape, round-conic; flesh, semi-firm, white; flavor, subacid to slightly acid (slightly sour); eating quality, fair. The harvest season at Geneva, NY is late September, which is the same time as 'McIntosh.' Fruits of 'Northern Lights' will store in a good marketable condition for three months at 31°F. However, it ripens in early mid-season and is not intended for use as a long storage variety. Crops should be sold soon after harvest.

Tree Description

One of the prime reasons for introducing 'Northern Lights' is because of the winter hardiness of the tree. Trees are large, vigorous, healthy, and productive, but generally somewhat biennial in cropping.

All apple varieties are self-unfruitful and all require another nearby variety as a pollen source. Therefore, if heavy crops are to be set on 'Northern Lights' trees, pollenizer varieties must be planted in the same orchard.

Pollen of 'Northern Lights' is effective for fruit set on other varieties. In 1966, studies showed that 73 per cent of the grains were plump and had a healthy appearance. This is a high portion of good viable pollen. Furthermore, in 1966 and 1967 when 'Northern Lights' pollen was used as the male parent on emasculated pistils of four other apple varieties, good fruit sets resulted. These observations indicate that 'Northern Lights' is probably diploid and can serve effectively as a pollen source to provide good fruit set on other varieties.

Trees of 'Northern Lights' bloom in midseason and therefore they can serve as a pollen source for other varieties that also bloom in midseason, such as 'Delicious,' 'Cortland,' 'Jonathan,' 'Macoun,' 'Mutsu,' 'Jonagold,' and many others.

In 1989, actively growing shoots of 'Northern Lights' were given a thermotherapy treatment to remove viruses. Subsequent virus indexing of trees that grew from micrografts of heat-treated meristems gave negative readings for apple chlorotic leaf spot virus, apple stem pitting virus and apple stem grooving virus.

Usefulness of 'Northern Lights'

It is recommended for home garden orchards in very cold regions. It may also prove to be useful for large commercial pick-your-own orchards or large orchards with wholesale markets, even in regions where winter injury of trees is not a problem.

Availability

Nursery trees of the 'Northern Light' apple can be purchased from the New York State Fruit Testing Association, Geneva, NY and from three or four tree nurseries in North Dakota. 'Northern Lights' is not patented.



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