NORRIS
A New Purple Bunch Grape

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Research was begun in 1944 at the Watermelon and Grape Investigations Laboratory to develop improved varieties of bunch grapes adapted to Florida. Norris is a new variety developed to fill the need for a well-adapted dessert grape.

It is a purple variety with attractive clusters of large grapes. Norris is adapted to all of Florida, except from Lake Okeechobee southward, and is resistant to Pierce's disease virus.

The variety is named for R. E. (Bob) Norris, recently retired County Agent of Lake County. A long-time advocate of grape culture in Florida, Bob Norris was secretary of the Florida Grape Growers' Association for 28 years.

ORIGIN
Norris, tested as FES A4-46, was developed from an open-pollinated cross between Florida 987 and Lake Emerald that occurred in 1956 at the Watermelon and Grape Investigations Laboratory at Leesburg. The female parent, Florida 987, originated from a cross between Florida 449 (Vitis smalliana Bailey x V. lineecumii Buckley) and Cardinal (V. vinifera L.). The male parent, Lake Emerald, came from a cross between Pixiola (V. simpsoni Munson) and Golden Muscat (V. labrusca L. x V. vinifera).

VARIETAL CHARACTERISTICS
Vine and Foliage
Norris grows vigorously and has a moderately large trunk with some canes extending 12 to 15 feet in each direction on the trellis under normal growing conditions. However, Norris is slightly less vigorous in growth than Lake Emerald. Dormant canes are reddish-brown in color and may attain a diameter of more than 1/2 inch. Terminal dieback and browning of the xylem at pruning are minimal. Buds begin growth in central Florida in March, usually past the danger period for frost damage.

Norris has large, thick, firm leaves of exceptionally dark green color. The foliage is luxuriant in spring growth, forming a dense cover for the fruit. Tender terminal shoot growth may be attacked by anthracnose during rainy periods. Norris is resistant to downy mildew and somewhat resistant to black rot.

1Assistant Geneticist and Assistant in Horticulture Emeritus, respectively, Watermelon and Grape Investigations Laboratory, Leesburg.
Flowers and Fruit

The flowers are self-sterile, having recurved stamens with normal-appearing, but nonfunctional, pollen. Norris thus requires a pollinator variety in the vicinity. The flower clusters are large, compound, and fairly loose. When adequately pollinated, Norris usually sets two well-formed, moderately large clusters per growing shoot. Cluster thinning is rarely necessary if the vines are properly pruned during dormancy.

Berries are ¾ inch in diameter, ellipsoidal, 2 to 3-seeded, and deep purple, with an attractive surface bloom at maturity. The skin, easily separated from the pulp, may develop stem-end cracking at maturity when rainy weather follows a prolonged dry period.

Norris ripens in late July at Leesburg, with juice samples at maturity averaging between 17 and 18% total soluble solids (sugar). Flavor of Norris was consistently rated as better than Blue Lake by taste panels.

YIELD

Norris was higher yielding than all other selections in a replicated test at Leesburg (Table 1). Lake Emerald was the check variety and also the rootstock for all selections in the test. Norris was not significantly different in yield from Lake Emerald in tests at Leesburg and Fort Pierce, but at Live Oak all selections had lower fruit yields than Lake Emerald.

Table 1. Mean yields of grape selections in a replicated test at Leesburg for period 1964 through 1966.

<table>
<thead>
<tr>
<th>Variety or Selection</th>
<th>3-Year Mean Yield</th>
<th>Duncan's Multiple Range Test at 5% Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lbs. per Vine</td>
<td>Tons per Acre</td>
</tr>
<tr>
<td>Norris (FES A4-46)</td>
<td>18.15</td>
<td>3.95†</td>
</tr>
<tr>
<td>Lake Emerald</td>
<td>16.23</td>
<td>3.53</td>
</tr>
<tr>
<td>FES A4-43</td>
<td>14.87</td>
<td>3.23</td>
</tr>
<tr>
<td>FES A3-60</td>
<td>11.47</td>
<td>2.49</td>
</tr>
<tr>
<td>FES A3-34</td>
<td>8.23</td>
<td>1.79</td>
</tr>
</tbody>
</table>

†Calculated yield based on a solid planting of the Norris variety. With pollinator vines every third row, yield of Norris grapes would be 2.68 instead of 3.95 tons per acre.

Norris yielded more than 18 pounds per vine at Leesburg trained on a single wire trellis with no irrigation (Table 1). Higher yields can be expected with regular spraying, irrigation, and a canopy-type trellis (allowing better pollination and fruit set).

Since the vigor and yield of Norris are equally good whether growing on its own roots or grafted on a vigorous rootstock,
and since Norris roots well from cuttings, it is usually grown on its own roots.

USES AND LIMITATIONS

Norris is primarily a dessert or table variety. Its large berries and attractive appearance make it desirable for fresh market in roadside stands and local stores where the turnover is fairly rapid. The keeping quality, though markedly inferior to Emperor and Ribier varieties, is superior to Blue Lake and Lake Emerald. Precooling and storage at 40° F. extends the keeping time of Norris grapes considerably. Careful handling from vine to consumer is essential to reduce the tearing of berries from the cluster.

Florida home gardeners should welcome Norris as a variety for fresh fruit use in midsummer.

POLLINATOR VARIETIES

Since Norris is self-sterile, it requires a pollinator variety nearby in order to set fruit satisfactorily. Two varieties are recommended as pollinators:

1. Blue Lake, a self-fertile blue variety, useful for juice, jelly, and home garden. Bloom time begins six days before that of Norris and continues through most of the bloom period of Norris. The fruit usually ripens a week before Norris.

2. Lake Emerald, a self-fertile green to golden variety, used for pancake syrup, wine, home garden, and as a rootstock. Bloom time coincides with Norris in most years. The fruit usually ripens a week after Norris.

Maximum fruit set on Norris can be obtained by growing a row of pollinator variety every third row in the vineyard. For example, pollinator in rows 2, 5, and 8, with Norris in rows 1, 3, 4, 6, 7, and 9. For a smaller planting, such as a single row, use a pollinator every third vine in the row.

DISTRIBUTION OF PLANTS AND CUTTINGS

Distribution to nurseries is being handled by the Florida Foundation Seed Producers, Inc., P. O. Box 14006, University Station, Gainesville, Florida, 32601. Make all requests directly to this agency.