

# Stover

**an early bunch grape for Central Florida**



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# STOVER<sup>1</sup> -- An Early Bunch Grape for Central Florida

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Commercial bunch grape plantings in Florida were short-lived and generally unprofitable prior to 1950. The varieties grown were susceptible to a virus infection known as Pierce's disease, which occurs commonly in Florida. Lake Emerald, a home garden variety released in 1954, is resistant to Pierce's disease and long-lived in Florida, but the fruit does not have the keeping quality necessary for a fresh market grape. Stover is a golden-fruited, long-lived variety with improved dessert and holding qualities that should help meet the need for a table grape in Florida. It is resistant to Pierce's disease and is adapted to areas of well-drained soil in Florida that are usually free of March frost.

## ORIGIN

Stover, tested as FES A4-43, resulted from a 1956 cross between varieties Mantey and Seyve-Villard 12-309. Mantey, the female parent, is a self-fertile seedling of unknown parentage derived primarily from the species *Vitis coriacea* Shuttleworth. S.V. 12-309, the male parent, is a self-fertile French hybrid of complex parentage derived primarily from *V. vinifera* L. and *V. rupestris* Scheele.

## VARIETAL CHARACTERISTICS

### Vine and Foliage

When grafted on Lake Emerald or Dog Ridge, Stover canes grow 5 to 10 feet in length and 3/16 to 3/8 inch in diameter. The dormant canes are grayish-brown in color. Shoot growth begins in early spring at almost every dormant bud along each cane. Because of its earliness the variety should be pruned late (at time of bud swell), to delay shoot growth, in areas where

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<sup>1</sup> This variety is named for L. H. Stover, Assistant in Horticulture, Emeritus, who conducted the grape breeding program at the Watermelon and Grape Investigations Laboratory from 1944 until his retirement in 1965.

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frosts occur commonly. The shoots grow rapidly in an upward direction, establishing an open leaf canopy of smooth, glossy foliage. Leaves are heart-shaped, with regularly serrate margins.

### Disease Resistance

Stover is resistant to Pierce's disease and downy mildew and moderately resistant to black rot, but susceptible to anthracnose and powdery mildew.

### Flowers and Fruit

Flowers are self-fertile; clusters are medium-size and frequently shouldered. Usually two to four clusters are borne on each shoot. Removal of smaller flower clusters increases bunch size at harvest.

Berries are 9/16 inch in diameter, ellipsoidal, 1 to 2-seeded, and translucent light green to golden at maturity. The golden color is more common where clusters are exposed to direct sunlight, but better fruit quality is developed in diffuse light. Berries reach full size in late May, but should not be harvested until soft to the touch (usually late June or early July). The skin is easily separated from the pulp when ripe and the sugar content at maturity averages between 17 and 18%. Fruit flavor is mild and free from excessive sweetness or tartness. Stover is superior to Lake Emerald in both flavor and appearance, though the bunches are usually smaller.

### Yield

Stover on Lake Emerald rootstock yielded almost 15 pounds per vine at Leesburg on a single wire trellis with no irrigation (Table 1). Higher yields may be expected using irrigation and a "T" trellis.

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

Variety or Selection	3-year Mean Yield		Duncan's Multiple Range Test at 5% Level of Significance
	Pounds per vine	Tons per acre	
Norris (FES A4-46)	18.15	3.95	a
Lake Emerald	16.23	3.53	a b
Stover (FES A4-43)	14.87	3.23	b
FES A3-60	11.47	2.49	c
FES A3-34	8.23	1.79	d

## CULTURE

### Spacing and Pruning

Vines should be spaced 10 x 10 feet. Prune to a cordon system with permanent arms each direction from the trunk. Leave up to five new wood canes of 5 to 6 buds each along each arm.

### Fertilization

Dolomitic limestone should be broadcast before planting, if needed, to raise the soil reaction to pH 6. A complete fertilizer such as 6-6-6, with 3% magnesium, should be spread thinly and evenly around young vines in four applications of  $\frac{1}{4}$  pound each per vine in March, May, July, and September. Increase to  $\frac{1}{2}$  pound per vine the second year in February, May, and July. The third year and thereafter apply about 1 pound per vine at each of three applications.

### Insect and Disease Control

Mid-winter sprays with Tribasic Copper Sulfate at 4 pounds per 100 gallons (2 tablespoons per gallon) are recommended for black rot control. Commercial lime-sulfur solution diluted 1 to 8 parts in water should be applied during dormancy for control of anthracnose.

Dithane M-45 sprays at 1.5 pounds per 100 gallons (1 tablespoon per gallon) are recommended for seasonal control of foliar and fruit diseases. Applications should be made at two-week intervals, beginning when the buds are 2 inches long and continuing until berries reach maximum size. Thorough spray coverage, especially during bloom, is important. Malathion EC (56%) at 24 ounces per 100 gallons (2 teaspoons per gallon) is recommended for insect control as needed.

## ROOTSTOCK VARIETIES

Yields and vigor of Stover are significantly improved by grafting on a compatible rootstock. It grows vigorously and produces well on both Lake Emerald and Dog Ridge rootstocks, but is not recommended on Black Spanish, W380, or W1521.

Lake Emerald rootstock is well adapted to Florida soils and climate, producing vigorous growth in varieties grafted or budded on it. It roots easily from hardwood cuttings and may be grafted after one growing season in the nursery.

Dog Ridge (*V. champini* Planch.) is recommended where parasitic nematodes are present. It is used as a nematode-resis-

tant rootstock in California sandy soils, and cuttings may be obtained from nurseries in that state if not available locally. Dog Ridge is somewhat more difficult to root from hardwood cuttings, but usually grows more vigorously than Lake Emerald under adverse conditions of drought or nematode infestation. Grafting size is reached after one growing season in the nursery.

## USES AND LIMITATIONS

Stover is primarily a dessert or table variety. Attractive appearance and freedom from excessive tartness and sweetness make the fruit desirable for fresh market sales in roadside stands and local stores. Its keeping quality, though inferior to that of Thompson Seedless, is markedly superior to that of Lake Emerald. Stover ripens one month earlier than Lake Emerald and is usually available ahead of new season California grapes, when premium prices are paid in the market. Bunches pack well in small containers, and refrigeration prolongs shelf life and seems to improve the flavor.

Stover is desirable, also, as a dooryard fruit variety, but must be sprayed regularly to prevent fungus diseases.

## 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.

