

'Holiday', a New Strawberry Variety

D. K. OURECKY*

Strawberries are one of the most popular fruits grown commercially or in the home garden. They may be eaten fresh, canned, or used in jellies, jams, frozen desserts, fillings, toppings, etc. Therefore, plant breeders in many countries throughout the world have been striving to produce superior clones suitable for specific regions, climates, and soil types. What may be a good variety in one region may be of little or no value in another.

Commercial strawberry production began about 1800 in the United States with selections of *Fragaria virginiana*, the wild native strawberry. Near the middle of the nineteenth century a number of private individuals released superior varieties for production. It was not until about 1920, that the U.S.D.A. and several land grant colleges initiated the first large scale breeding programs. The major emphases in strawberry breeding programs today are on disease resistance and increased fruit firmness. The specific disease problems may vary from region to region, but *Verticillium* wilt, red stele, and leaf diseases are still the most serious diseases. Many varieties are soft-fleshed and tender-skinned thus limiting handling and sorting, and reducing shelf life. With increased interest in mechanical harvesting, the demand will be for very firm-fleshed and tough-skinned fruit with concentrated ripening. Other horticultural characteristics of a good variety include good vigor, free-running ability, and resistance to serious leaf diseases. The fruits must be large to start the season as most varieties run down in size as the season advances. In addition to being firm-fleshed and tough-skinned, the fruits should be attractive and of good quality. Fruit placement is desirable for



Figure 2. Fruit of 'Holiday' strawberry.

ease of picking. If the fruit is hidden or tangled, it is difficult to pick and many fruits are missed. Tangled fruit trusses are difficult to harvest mechanically. A brittle pedicel is also desirable so that a harvester or picker will not break off a portion of the trusses. A pedicel that snaps easily allows a picker to increase his picking rate.

In the breeding program at Geneva, we have concentrated on firm flesh and a tough skin. 'Holiday' (formerly 'N.Y. 1144') was produced from a cross between 'Raritan' x 'New York 844'. 'Tennessee Shipper' was the original source of firmness in 'Holiday' and has played an important role in its parentage as shown in Figure 1.

'Holiday' was selected in 1965 from a population of 103 seedlings. Its most outstanding characteristics are its very firm flesh, tough skin, attractive appearance, large size, brittle pedicel, and aromatic flavor.

Description of 'Holiday'

Plant—vigorous with upright, medium green, glossy, smooth foliage; medium thick and long petioles; not a profuse runner producer, but makes a good matted row of well-spaced plants;

*Department of Pomology and Viticulture, New York State Agricultural Experiment Station, Geneva, New York 14456.

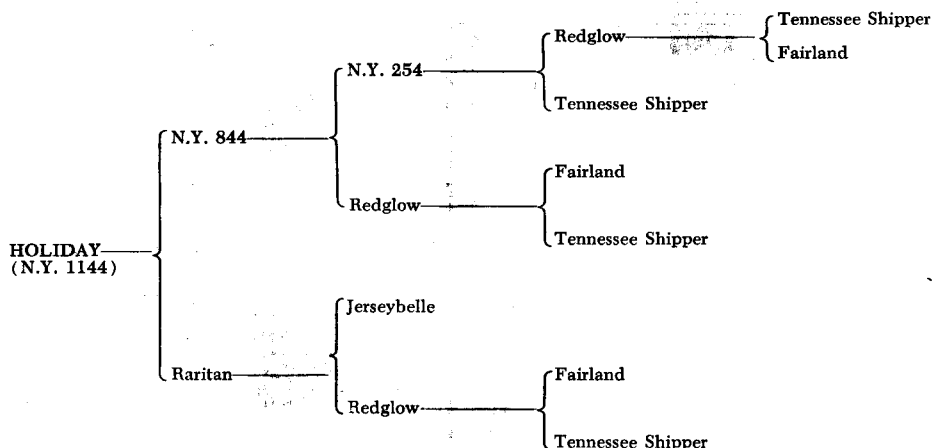


Figure 1. Pedigree of the 'Holiday' strawberry.

long medium thick runners; productive.

Flowers—perfect, early midseason, large, 5-6 petals, numerous stamens; fruit stems medium length, medium thick, prostrate; pedicels are medium in length, medium to slender with wide spreading pubescence; calyx variable, medium sized, slightly raised to flat, slightly reflexed, medium green, few adhere to fruit.

Fruit—ripens in early midseason, very large, very firm, uniform shape, oblate to blunt wedge, conic, apex indented, color medium red, glossy, very attractive, evenly colored, tough skin, seeds numerous, sunken, not seedy in appearance. Flesh is light red to the center, slightly underripe fruits are light red or slightly white to center, juicy, solid center, mild sub-acid, highly aromatic, of good quality, good for freezing, brittle pedicel, picks easily. During a normal season, the primary berry may remain in good condition until several secondaries or tertiaries ripen thus exhibiting concentrated ripening. The fruits are less susceptible to rot than other commercial varieties.

'Holiday' has performed consistently since selection. It has been tested in home gardens and with several commercial growers. It has received much

attention and may soon replace many of the present soft commercial varieties grown in the Northeast. Its superior firmness is two-three times that of present varieties, as shown in Table 1.

Table 1. Measurements of skin and flesh properties in strawberries by an Instron Universal testing machine⁽¹⁾.

Variety	Skin Toughness*	Flesh Firmness*
Marshall	180	322
Catskill	228	383
Midway	257	569
Sunrise	269	456
Earlidawn	272	459
Garnet	173	524
Fletcher	274	414
Surecrop	313	546
Tennessee Shipper	367	686
Holiday	429	1089

*Puncture force in grams (Higher values indicate greater firmness).

Since most strawberries are frozen rather than canned, good freezing characteristics are desired. A large number of strawberry clones were submitted in 1970 for freezing trials

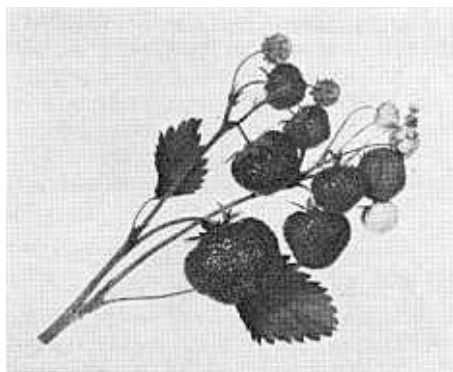


Figure 3. Cluster of 'Holiday' strawberry fruit.

and evaluated on color, flavor, and texture. A scale of 1-10 was used giving equal weight to all three characteristics. Table 2 shows the results on seven of the named varieties used in the trials. 'Holiday' rated high in all tests because of its good color and texture. Panelists varied in their response to flavor; however, most growers and home gardeners find the flavor highly acceptable. The highly aro-

matic flavor is distinctly different from most varieties and easily identified.

Plants are available from the New York State Fruit Testing Association, Geneva, New York, and the Lewis Farms, Inc., R. F. D., South Deerfield, Mass. 01373.

Table 2. Taste panel scores on seven freeze-thawed strawberry varieties.*

Variety	Color	Flavor	Texture	Average Score
Fletcher	7.5	6.9	6.1	6.8
Holiday	6.9	5.5	6.5	6.3
Frontenac	7.1	6.9	5.0	6.3
Garnet	6.3	6.5	5.9	6.2
Midway	6.1	5.8	5.9	5.9
Raritan	5.0	5.5	4.9	5.1
Fortune	4.1	4.9	2.9	4.0

*Average score of 24 panelists using a scale of 1-10, 10 highest rating.

References

1. Ourecky, D. K. and M. C. Bourne. 1968. Measurement of strawberry texture with an Instron machine. *Proc. Amer. Soc. Hort. Sci.* 93:317-325.

French Hybrid Grapes Given Names

O. A. BRADT¹ AND JOHN EINSET²

Several numbered French hybrid grapes that have gained commercial importance in the Great Lakes grape districts have been given names.

The use of numbers to identify cultivars selected by 'Seibel,' 'Ravat,' and other French hybridizers has sometimes resulted in confusion among growers and has created a problem in identifying varietal wines by name.

For this reason, the Finger Lakes Wine Growers Association in 1970 selected names for seven of the French hybrids which are important in New York. These selections had not been named by the French originators and would never be sufficiently important in any of the French districts to be named. The selected names were published by the Association in an

¹Horticultural Research Institute of Ontario, Vineland Station, Ontario, Canada.

²Department of Pomology and Viticulture, New York State Agricultural Experiment Station, Geneva, New York 14456.