



STRAWBERRY VARIETIES

For MICHIGAN: *commercial and home garden*

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SELECTING THE VARIETY

Successful strawberry culture requires selection of adapted varieties. Selecting varieties for either commercial production or home gardens can be difficult because numerous varieties are propagated by nurseries, some catalogs listing two or three dozen varieties, but not all adapted to Michigan. Variety descriptions often indicate where the varieties were bred, with many originating in different parts of the country. *Climate greatly influences varietal performance; each variety performs best in the region where it was developed or in areas with a similar environment.* "Florida 90" for example, would not be as likely to succeed in Michigan as varieties developed in the Midwest.

Strawberries developed in northern latitudes produce high yields of fine quality berries where the days are long and temperatures moderate in summer and cold in winter. Varieties bred for southern states, by contrast, perform best where the days are short and warm during the winter harvest season and hot in summer. Southern varieties grown in Michigan are usually vegetative and unproductive while northern sorts may die in the far South. Likewise, varieties developed on the Pacific Coast are disappointing in Michigan because the climates of the two regions are dissimilar.

VARIETY TRIALS IN MICHIGAN

Recommendations of varieties for Michigan are based on extensive trials at the Michigan State University Agricultural Experiment Station near Sodus in southwestern Michigan. Grower experiences are also helpful. The harvest season at the Sodus Experiment Station usually extends from early June for the earliest varieties to late June for the latest ones. The peak harvest period, all varieties combined, is from about June 12 to June 22.

For this report the very early season is arbitrarily defined as the period from June 7 to June 12, midseason from June 13 to June 20 and late season from June 21 to 28. Most varieties reach their peak somewhere in the midseason range with few very early or very late varieties.

RECOMMENDATIONS

New varieties, although promising in preliminary trials in Michigan, should be tested commercially on a small scale. Some varieties are not consistent, and weaknesses may appear later which were not noticed in preliminary trials. Individual commercial growers and home gardeners have personal preferences, but the following varieties are considered most adapted for Michigan conditions.

Early Season

A need exists for improved varieties in the early season. "Sunrise" is probably the best available. It is variable in productivity and frequently less productive than desirable. Earliest berries are large, but late berries may be small. "Sunrise" is resistant to *Verticillium* wilt and red stele root rot. The berries are an attractive conic shape, light red and glossy. The flavor is good. The flesh is firm, but it is a little light in color for best appearance when frozen. "Sunrise" is recommended where earliness is an important factor.

Midseason

Two strains of "Midway," known as "Early Midway" and "Midway," have been the most widely planted varieties in Michigan for several years. The early strain, "Early Midway," ripens several days before the other. They are similar but not identical in foliage and berry characteristics. "Midway" has a long harvest season and a record of consistently good yields of medium to large berries of fine quality for either fresh use or freezing.

The supremacy of "Midway" is being challenged by two recently introduced varieties with larger berries. "Guardian" is especially notable for its large berries and resistance to *Verticillium* wilt and red stele root rot. "Redchief," ripening in early midseason, is another variety finding increased acceptance in Michigan. It is productive and resistant to *Verticillium* wilt and red stele.

Late

The frequent occurrence of high temperatures, humidity and wind in the late season is unfavorable for consistently high yields of good-quality berries. Improved varieties are needed in this season. "Sparkle" ("Paymaster") and "Tennessee Beauty" have been important late varieties. Both yield relatively small berries and may be replaced by recent introductions yielding larger berries. "Marlate" yields large berries with excellent quality for fresh use. "Delite" is a productive variety with large fruit. Preliminary tests suggest both "Marlate" and "Delite" are worthy of trials. "Vesper" has performed well in some years, but it has not been consistent. "Vesper" has soft berries, and it is highly susceptible to Verticillium wilt and leaf diseases which limit its usefulness.

VARIETY DESCRIPTIONS

Badgerglo, a late variety from Wisconsin, has not been tested long enough in Michigan for a complete evaluation. The yield was only moderate in 1974. The berries were medium size and firm.

Catskill, for many years a popular variety in the northern part of the lower peninsula of Michigan, has been replaced by "Midway." Its fruit is large, bright red, soft and rough. The flesh is light in color. It has been a consistently high-yielding variety in Michigan and other northern states. The quality is generally good in Michigan. Catskill is suggested for home gardens and for trial in "pick your own" plantings.

Darrow has berries that are medium size, glossy, firm and deep red. The first berries to ripen tend to be rough. Yields have been good but not outstanding. Rough berries and lack of size have been the main weaknesses of this variety in Michigan. "Darrow" is resistant to red stele root rot and is worthy of trial where this disease is a problem and early ripening is desired.

Delite originated in southern Illinois. It is very vigorous and produces runners so freely that removal of late-formed runners may be necessary to prevent plant crowding. "Delite" has been productive in narrow, matted rows. The berries are cone-shaped, medium to large size, glossy, bright red and moderately firm with pink flesh. The plants are resistant to red stele root rot and Verticillium wilt. This variety is promising for the late season but requires more complete evaluation.

Earlidawn is one of the earliest varieties available. It is highly susceptible to Verticillium wilt and is not recommended for commercial use.

Guardian is a relatively new variety being planted on increasing acreage in Michigan. It ripens in late mid-season. The plants are vigorous but produce a moderate

number of runners. This variety is resistant to most leaf diseases, red stele root rot and Verticillium wilt. Productivity has been consistently good. Its berries are large, with glossy surface and light red color. The berries sometimes have a green tip that detracts from their appearance. The flesh is firm but light in color, which may not be attractive in a frozen pack. First berries to ripen are conic and with a rather rough contour. Later berries have a more attractive, symmetrical shape. "Guardian" has many good qualities and is recommended for Michigan.

Holiday, introduced from New York, ripens in early midseason. Berries are large, medium red, glossy and attractive. The flesh is exceptionally firm. Quality is good, either fresh or frozen. Yields have been moderate in initial trials, and it is suggested for trial.

Jerseybelle ripens in late season, has attractive berries but has not been consistently productive. It is susceptible to Verticillium, red stele root rot and certain leaf diseases. It is not recommended for Michigan.

Marlate is a very late-ripening variety recently released from Maryland. The berries are large, firm, attractive and high quality. Yield in 1974 Michigan trials was moderate. Flesh is light colored, and fruit are very difficult to cap. Marlate is suggested for trial when a late fresh-market variety is desired.

Midway is a midseason variety with a long harvest season. For over a decade it has been the most popular variety grown in Michigan. Yields are high, although some growers report that it is not as productive as formerly. Midway is somewhat susceptible to Verticillium wilt and other unidentified root problems, and, in some plantings, the growth and vigor of plants is not adequate for best fruit production. Berries of Midway are medium to large, conic in shape and have an attractive, bright red exterior with red flesh. "Midway" is still a recommended midseason variety.

Premier, a very old early variety, is still grown by some home gardeners who want a very early-ripening, dependable variety. The berries are soft and small, and it is not recommended for commercial production.

Raritan is a recent midseason introduction from New Jersey. The berries have a smooth, conic shape and a glossy, red color. The fruit is very attractive, firm and good quality for fresh use. Yields have been good, but fruit size is small in Michigan trials. The plants are not resistant to either Verticillium wilt or red stele root rot, and this would affect performance where these diseases are present. "Raritan" is a doubtful variety in Michigan.

Redchief is proving to be a good all-purpose, mid-season variety that is productive, attractive and has high dessert quality. The plants make an acceptable matted row and are resistant to red stele root rot and moderately resistant to Verticillium wilt. The berries are broad conic

to conic and firm, and the color is a uniform glossy red. It is very hard to cap. The primary berries may be split (double) some years, possibly resulting from frost injury to the blossoms. "Redchief" is recommended for Michigan.

Redglow has attractive, high-quality berries but lacks size and production to compete with other commercial varieties in Michigan.

Robinson, a leading variety in Michigan during the 1950's and 1960's, has large berries, but it lacks firmness and red flesh color. The flavor is generally regarded as rather bland. It does not make an acceptable frozen product. "Robinson" is prolific in runner production, easy to grow and productive.

Sparkle ("Paymaster") is a late-season variety of good quality, but the berries are small. It may have a place in the home garden because of its season, quality and resistance to red stele. It is also popular for the "pick your own" trade.

Sunrise is grown some in Michigan because it ripens very early. Yields have generally been disappointing. The first berries to ripen are large, but later berries are frequently small. The berries are an attractive, conic shape and good quality. The flesh is firm but a little light in color for best appearance when frozen. "Sunrise" might be selected if a variety ripening in the very early season is desired.

Surecrop is outstanding for vigor, drought resistance and resistance to most root and leaf diseases. It is dependable and one of the easiest varieties to grow. The attractive fruit is usually of medium size in Michigan. It is firm and rather tart in flavor. This variety performs best in narrow, matted rows. Remove late-formed runner plants to prevent plant crowding.

Vesper is a late-season variety susceptible to Verticillium wilt and leaf diseases. Berries are large, dark red and attractive but too soft for a commercial shipping berry.

EVERBEARING STRAWBERRIES

Everbearing strawberries produce a crop of berries in June and then more flowers and fruit in late summer. Some varieties do not produce a sufficient number of runner plants to develop a good row. Best yields with such varieties can be obtained by growing plants in double or triple rows in the hill system of culture, removing all runners as they are formed. Mulching the plants with sawdust and supplying water and fertilizer generously further aids in obtaining large, fruitful plants.

Everbearers can be grown also in containers on a patio, along borders in the garden or on a terraced

pyramid. The plants are attractive for their foliage as well as for their berries.

Everbearing strawberries are recommended for summer berries in the home garden but not for commercial production except in a limited way for local market. The cost per acre is high with more plants, and much more hand labor required.

Everbearing Strawberry Varieties

Gem ("Superfection") is a reliable old variety. The plants are hardy and productive. The berries are an attractive light red, tart and medium firm.

Ozark Beauty readily produces runner plants and can be grown either in the matted row or the hill system. Yields are generally good. The berries are large, rough in contour and sweet.

Where to Find Certain Traits

Home gardeners prefer different varieties for different reasons. Common varieties grouped according to certain characteristics are:

Traits	Varieties
Early	Sunrise, Premier.
Late	Marlate, Vesper, Sparkle, Delite.
Good flavor	Catskill, Redglow, Redchief, Marlate, Raritan, Sparkle.
For freezing	Midway, Sparkle, Redchief, Redglow, Surecrop.
Large berries	Guardian, Robinson, Marlate.
Resistance to red stele disease	Guardian, Redchief, Sunrise.
Resistance to Verticillium wilt disease	Guardian, Catskill, Robinson, Premier, Redchief, Sunrise.
Everbearing	Gem (Superfection), Ozark Beauty.

BUYING PLANTS

Purchase certified virus-free plants. Research has shown that disease-free plants may be more vigorous and productive than virus-infected plants.

An initial plant spacing of 4 feet between rows and plants 2 feet apart in the row requires about 5,500 plants per acre.

A home garden planting provides about one quart of berries per foot of row.

