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AGRICULTURAL EXPERIMENT STATION

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BULLETIN NO. 62.

STRAWBERRIES.

LEXINGTON, KENTUCKY.  
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KENTUCKY AGRICULTURAL EXPERIMENT STATION,  
LEXINGTON, KY.

## BULLETIN No. 62.

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### STRAWBERRIES NEW AND OLD.

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BY C. W. MATHEWS.

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There is probably no other single horticultural subject concerning which inquiries are more frequently made of the Experiment Station than that of strawberries and their varieties. Questions relating to the value of any variety for a given locality are very difficult to answer with precision, for several reasons. Little or nothing is usually said as to the purpose for which the fruit is to be grown, the character of the soil under cultivation, or the kind of culture which will be given the plants when set. Even if these facts were known, there are still other causes which occasion variable results in the cultivation of any variety of strawberry, as well as of other plants, so that it is impossible for the Experiment Station to prescribe with certainty the "best" variety for any given locality.

By its tests of varieties, and a study of the conditions and results of their culture throughout the state, the Station may be able to give helpful suggestions regarding varieties, but these suggestions should be supplemented, when possible, by observation and inquiry in the grower's own neighborhood, where the conditions most closely resemble his own. If he produces berries for market, he can well afford to test for himself the

most promising new varieties, as they are brought to his notice.

While it is true, as intimated above, that the best variety, or set of varieties, for one grower may not be the most desirable for another, it is also true that certain varieties are found to give fairly successful results over a wide extent of territory. The variety "Bubach No. 5" is a good illustration of this fact, for not only is it almost universally commended by growers in Kentucky, but it is also a favorite in many other states.

It is found also by inquiry that the behavior of any variety upon our grounds usually agrees with the *general* consensus of opinion regarding it in other parts of the state.

It is therefore believed that a variety which is notable for vigor, productiveness, or other good qualities upon the Station grounds, is very likely to be of some value elsewhere, and especially if its good qualities are endorsed by the experience of growers in other parts of the state, it is reasonable to suppose that it may be found quite generally valuable throughout the Commonwealth.

In order to obtain such a general estimate of the value of different varieties, to supplement our own observations, an effort has been made to gather the experiences of strawberry growers from all parts of the state, by addressing to them letters of inquiry.

About forty of the largest and most successful growers have kindly responded to our inquiries, and the information thus obtained has been incorporated with the results of the comparative tests upon the Station grounds, in the report upon varieties.

In making use of such records and opinions as apply to the newer varieties, it should be remembered that a single season's experience is not sufficient to conclusively

establish the merits or demerits of a variety. One which may seem very promising under the conditions in which it is first grown, may prove utterly worthless under less favorable influences.

The usual methods of strawberry culture are now so well known, and are so commonly outlined in the catalogues of dealers in plants, that it is not necessary to devote space to a description of them here.

All the varieties upon which this report is based, fruited upon the variety plot at the Station farm in 1895, and were set in the spring of 1894.

The plants (usually two dozen of each variety) were obtained from various sources, some having been transplanted from our older beds, while others were purchased from nurserymen, or donated by them or the originators to the Station for trial.

They were set in rows  $4\frac{1}{2}$  feet apart, and allowed to run together, forming matted rows about  $2\frac{1}{2}$  feet wide. A good stand of most varieties was obtained, although it was impossible to secure this as perfectly as when the stock is all received from one careful grower and packer, or transplanted from our own grounds.

New varieties are received at intervals during the spring from widely different sources, and sometimes arrive in bad condition, owing to improper packing or delays in transit; consequently some plants die, and some, owing to late setting, drought, or individual characters fail to run and take root as freely as others.

On this account it is impracticable to obtain a perfect measure of the comparative productiveness of different varieties, at least during the first season of fruiting, so that the relative product is indicated approximately upon a scale of 0-10 in the following table.

The plot was given good care throughout the season and mulched with wheat straw about December 1; but it was

not designed to bestow any special "petting" upon these varieties, beyond what is entirely practicable with any energetic fruit-grower.

The table following is designed to show the relative period of fruiting of the different varieties between May 23 and June 18. A very few scattering berries ripened before and after these dates, but not in sufficient quantity to justify any grower in picking for market. Michel's Early and Rio would probably have ripened a considerable number of berries before the first date mentioned, had it not been for the cool and cloudy week just preceding the 23d of May, and the season of fruiting of several late varieties was no doubt considerably shortened by the total absence of any rainfall between June 6 and June 19 inclusive.

The scale of comparative productiveness in the table, as well as the duration of yield, represents the results upon our own grounds only, and in the notes upon varieties following, the same thing is true unless otherwise stated.

VARIETY.	DURATION OF YIELD.					Product Scale 0-10.
	May.		June.			
	23	30	6	13	18	
Beder Wood.....	—	—	—	—	—	8
Michel.....	—	—	—	—	—	5
Rio.....	—	—	—	—	—	4
Luther.....	—	—	—	—	—	4
Smeltzer.....	—	—	—	—	—	3
Warfield, P*.....	—	—	—	—	—	9
Crescent, P.....	—	—	—	—	—	8
Marshall.....	—	—	—	—	—	6
Barton's Eclipse P.	—	—	—	—	—	9
Boynton, P.....	—	—	—	—	—	7
Burt.....	—	—	—	—	—	5
Childs.....	—	—	—	—	—	5
Crawford.....	—	—	—	—	—	5
Downing.....	—	—	—	—	—	5
Edgar Queen P ..	—	—	—	—	—	6
Haverland, P.....	—	—	—	—	—	9
Jay Gould, P.....	—	—	—	—	—	5
Leader.....	—	—	—	—	—	5
Lovett.....	—	—	—	—	—	10
Mary, P.....	—	—	—	—	—	5
Middlefield, P ..	—	—	—	—	—	4
Mrs. Cleveland, P..	—	—	—	—	—	9
Muskingum.....	—	—	—	—	—	7
No Name.....	—	—	—	—	—	7
Princess, P.....	—	—	—	—	—	7
Tennessee Prolific..	—	—	—	—	—	9
Beverly.....	—	—	—	—	—	5
Bisel, P.....	—	—	—	—	—	10
Brandywine.....	—	—	—	—	—	5
Enhance.....	—	—	—	—	—	9
Greenville, P.....	—	—	—	—	—	10
Princeton Chief, P	—	—	—	—	—	10
Saunders.....	—	—	—	—	—	7
Standard, P.....	—	—	—	—	—	8
Swindle, P.....	—	—	—	—	—	8
Jucunda Improved..	—	—	—	—	—	5
Parker Earle.....	—	—	—	—	—	7
Regina, P.....	—	—	—	1	—	4
Timbrøll, P.....	—	—	—	—	—	9
Gandy.....	—	—	—	—	—	5

\*P.—Pistillate or imperfect flowered.

ACCOMAC. A berry of medium size, unproductive and irregular here, and so reported at other stations.

BARTON'S ECLIPSE, P. A moderately firm berry of good size and productive, but somewhat irregular in shape, and discarded by some of our correspondents on account of rust.

BEDER WOOD. An early, perfect-flowered variety, which is quite productive. First berries are of fair size, but they soon become too small. Foliage is very subject to rust on our grounds as elsewhere. Of some value as an abundant producer of pollen.

BELLE. Not productive or otherwise valuable here; the only report received is also unfavorable.

BEVERLY. Plants strong and perfect-flowered. Berries of medium size. We have received several favorable comments upon this variety, although only moderately productive here and in Woodford county.

BISEL, P. (Dan Bisel) Appeared like a promising market variety upon our grounds. Berries of good size and fine looking, dark red in color and for the most part regular in shape. One of the most productive varieties fruiting here the past season, giving its largest yield June 11. The experience of others in the State is not so decidedly in its favor, although apparently not generally fruited yet. Somewhat affected by rust.

BOYNTON, P. Small to medium in size, evenly colored and fairly regular; productive; considerable rust. Much like the Crescent, if not identical with it.

BRANDYWINE. From reports, apparently not fruited much in Kentucky as yet. Reports upon plants are very favorable, and reports from other States have quite highly commended it, but upon our own grounds it has not shown any superiority in fruit to other varieties; moderately productive of medium to large berries, which with us were often rough and mis-shapen.



BUBACH, P. A standard variety now largely grown for market over a wide extent of country. Owing to local causes we did not secure as good a stand as usual of this variety, but in previous seasons it has been one of the best, the plant being vigorous and productive; berries large, regular and beautiful, and firm enough to ship a short distance; a favorite almost everywhere in Kentucky. A minor fault noted by several, is that it sometimes does not produce runners enough to ensure a good stand of plants.

BURT. A symmetrical berry of medium size, not very productive or good in quality. Plants dwarf, with abundant foliage, which, however, is badly affected by rust.

CAMERONIAN. Berries medium to large; rather irregular; not productive.

CHILDS. A rather pale berry, low conical in form, and quite attractive in appearance upon the few plants which fruited in 1895. Apparently only medium in productiveness.

CRAWFORD. With us, as in most places, not very productive, but the berries are of superior quality, and large and regular in size and coloring. Considerably subject to rust. Best adapted to the amateur who will give it extra care.

CRESCENT, P. This old variety is still evidently one of the favorites with many Kentucky growers, especially with those who ship their fruit, on account of its hardiness and productiveness. It will endure neglect better than any other kind, but many are discarding it in favor of the larger and more showy varieties.

DAYTON. Of good size and fair quality, but only moderately vigorous or productive, and its season was very short here, lasting only eleven days.

DOWNING. One of the older varieties which was long a general favorite, but while still grown considerably

for home use and near market, is now being supplanted by more productive varieties; is used by some to pollinate Crescent, Bubach and other pistillate varieties; generally reported as suffering a good deal from rust.

EDGAR QUEEN, P. A variety which has been cultivated a number of years, and concerning which reports have been quite conflicting. Only moderately productive here, and its large berries are frequently green-tipped and cox-combed.

EDWARD'S FAVORITE. Medium to large berries; not very productive; shows considerable rust.

ENHANCE. Productive here; of medium size and somewhat irregular; not high in quality; valued by some as a shipping berry, because of its firmness. By several correspondents rated high, from one or two season's observation.

ENORMOUS, P. We received in 1894 a few plants of this variety in bad condition, so that only one or two survived. A correspondent in Gallatin county writes concerning it, "If you have none of these try a few by all means; I believe the variety equal to Bubach, and firmer."

EPPING, P. Plant vigorous; moderate in productivity; has not done as well as in previous seasons. Berries the past seasons were very irregular with many green tips.

E. P. ROE. A failure here as nearly everywhere.

EUREKA, P. Shows no valuable characteristics here. Berries irregular; not productive.

FARNSWORTH. Small to medium berries; regular and of fair quality, but not productive, and had considerable rust.

GANDY. Second only to Bubach and Haverland as a favorite in Kentucky; not on account of its productive-

ness, which is only moderate, but because it possesses nearly every other good quality of a late variety. Plant vigorous; perfect flowered; berries large, firm and handsome, and of good quality. The best shipping variety in general cultivation; does not in general suffer much from rust.

GOV. HOARD. Reports of this variety are generally not very favorable.

GREENVILLE, P. One of the newer varieties from which reports from other Experiment Stations have been almost uniformly favorable. Upon our grounds the plants have appeared vigorous and but slightly affected by rust. The fruit was large, abundant, attractive in appearance, regular in form, and while not firm enough to ship long distances, seems well adapted to home use or a near market. One Kentucky grower of experience, however, reports that "it withered more than anything I had last year during the fierce heat of gathering time."

HAVERLAND, P. A well-known variety in Kentucky and in many other States. One of the most largely grown for market. A long, somewhat flattened and pointed berry, rather light in color, and not high flavored, but very productive and can be shipped for moderate distances; among the early varieties, and holds out in yield for a long time; with very rare exceptions, highly commended by market growers everywhere in Kentucky; not quite equal to some others for the home table or for canning.

H. W. BEECHER. Having arrived in bad condition, there were but few plants to fruit. Our impressions of the variety were not very favorable. Berries large, but irregular and rather insipid in flavor; not very productive here.

JAY GOULD, P. Plant vigorous and but little affected

with rust. Berries of medium size, very symmetrical and handsome, dark glossy red in color, and of good flavor, but not productive enough.

JUCUNDA IMPROVED. Medium to large; regular and attractive in appearance; not very productive.

LEADER. Of no decided excellence here; only moderately productive; at first large and irregular in shape, but rapidly deteriorates in size.

LOVETT. Reports from this variety through the state are quite conflicting, but in the majority of cases favorable; in some localities subject to rust. Upon our grounds the few plants we had gave a large yield of second-class berries of medium size; apparently a profitable market berry with some growers.

LUTHER. An early, large and good berry, although not productive last season.

MARY, P. Medium to large; of even size and coloring, good quality, but from the few plants in fruit it appeared unproductive; plant vigorous and nearly free from rust.

MARSHALL. The largest berry grown here during the past season. Quite regular for so large a berry; dark in color and of good quality. A pleasing variety for the amateur and for home use, but not productive enough for the market grower. Plant strong and healthy.

MARTHA, P. Moderately productive, but has little to recommend it here.

MIAMI, P. Moderately productive, but small and unattractive.

MICHEL. Valuable chiefly for its earliness and abundant pollen. During the past season it ripened its two largest pickings here before Bubach and Haverland were picked at all. Not very productive and usually produces too many plants for the best results if left to itself. A few berries ripened upon our plot May 14, but on account of storms there were no more until May 23. Many of

our correspondents reported upon this variety, and the majority favorably. One grower in Pulaski county values it so highly that while he has now 10 acres of it he will set 5 more the coming season. Plant very vigorous and so early that it not infrequently suffers from late frosts in many localities.

MIDDLEFIELD, P. Large and very handsome berries. Plants vigorous and healthy but generally reported unproductive.

MRS. CLEVELAND. Quite productive and comparatively free from rust as grown here last season, but berries were quite irregular in shape. Other growers report it as rather unreliable, although one commends it.

MUSKINGUM. Berries large and regular in form, attractive in appearance, and fairly productive. Plants vigorous and free from blight. A pleasing variety for home use, although not successful everywhere.

NO NAME, (GANDY BELLE.) Quite productive last season. Berries of good size but often irregular with green tips; rusted considerably; a few favorable reports of it were received.

PARKER EARLE. A perfect flowered variety that is fairly productive on our grounds, although reports from other States vary in character. Sets a large number of berries, and unless conditions as to moisture and fertility are favorable, cannot bring them all to maturity. Plant considerably subject to blight on our grounds.

PRINCESS, P. Yielded a good crop on our soil, of large, fairly regular berries; of good quality, not very firm. A careful grower in Warren county reports it a failure there.

PRINCETON CHIEF, P. A rather late variety, healthy and very productive for the few plants in our plot. Berries medium in size, rather acid in flavor. Favorably commented on in Warren county.

REGINA, P. Late, small and unproductive here.

RIO. Ripens with Michel's Early and yielded about the same. Medium to large in size, regular and attractive in shape and coloring. Worthy of further trial, especially for home use, on account of its earliness, beauty and excellent quality. Nearly free from rust. Like Michel, it is liable to suffer from late frosts.

SAUNDERS. Medium size, fairly productive, but as grown here not very attractive on account of green tips and irregular shape; rather sour.

SMELTZER. Begins to ripen early; not valuable here apparently, because of its unproductiveness and its irregular berries with green tips.

STANDARD, P. Fairly productive but otherwise not especially valuable here, as in other places where it has been observed.

SWINDLE, P. Fairly productive, but rather small and sour, and seriously affected with blight. So far as learned, it is not valuable elsewhere.

TENNESSEE PROLIFIC. Quite productive; berries of good size but with us, were very irregular with many green tips and sides.

TIMBRELL, P. A late variety which is quite productive and ripened its largest picking here later than any other variety. Fruit of good quality, medium to large in size. Its greatest fault, and a serious one for market purposes, is the dingy, spotted appearance of the berries, rendering them almost unsaleable. Has some value for the home garden on account of lateness and quality.

WARFIELD, P. An early, productive variety, of good color and a fair shipper; of medium size, conical in shape, and in several places in Kentucky, reported as one of the best market varieties. Several have noted a difficulty in securing its proper fertilization.

WESTBROOK, P. Unproductive; berries small.

WEST LAWN, P. Medium to large, roundish conical, regular, bright color, and of good quality, but only moderately productive the past season.

SUMMARY.

The most popular and desirable varieties now grown in Kentucky, judging from the experience of correspondents, as well as our own tests, and in the order given, are Bubach, Haverland, Gandy, Crescent, Warfield, Michel, Downing, Lovett and Enhance.

Of the varieties which are at present cultivated only to a limited extent, the following seem worthy of trial, but *some of these varieties are only desirable for a special purpose, as suggested in the notes above, and it would be wiser for cultivators to test them upon a limited scale, before planting largely of them*; Beverly, Bisel, Greenville, Timbrell, Marshall, Muskingum, Princeton Chief, Rio.

Amateurs should bear in mind that if pistillate varieties like Bubach and Haverland are selected, at least one-third as many plants of a perfect flowered variety of corresponding season should be planted with them, to ensure proper fertilization.

NOTE.—The Horticultural Department of the Experiment Station is seeking to obtain as complete a directory as possible of the fruit growers of the State, in order to secure their co-operation in the study of Kentucky fruit growing.

Will you not kindly send to this department the names and addresses of such persons of your acquaintance as are interested in fruit growing, together with the kind of fruit grown and the area under cultivation, if large?