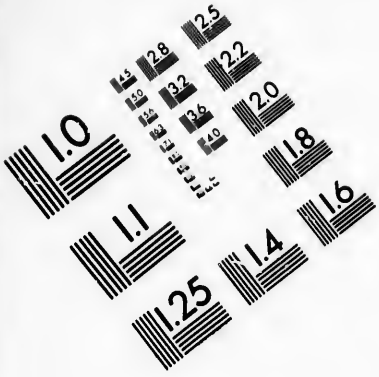

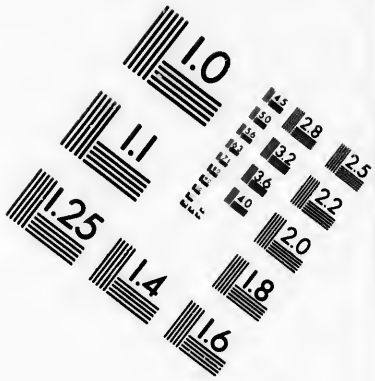

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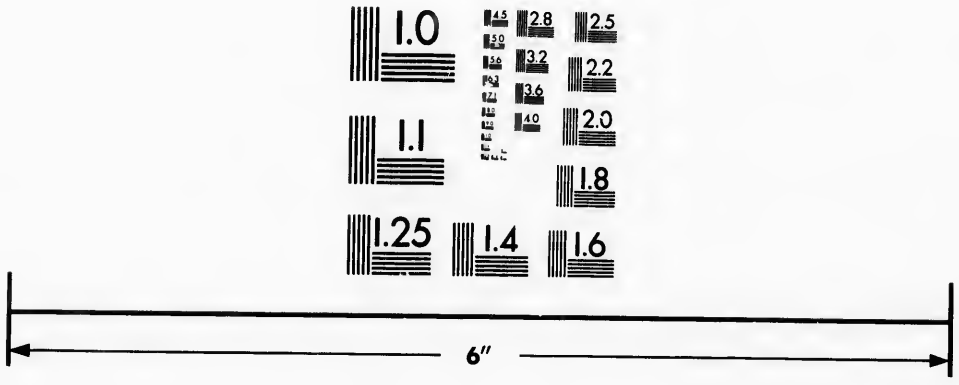

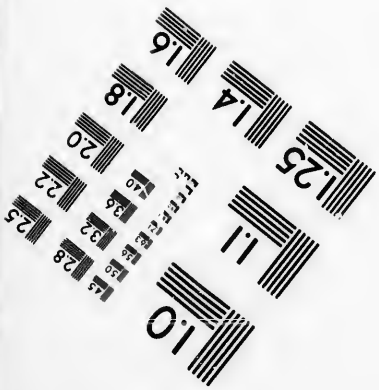

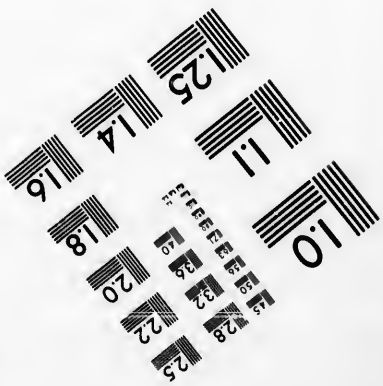

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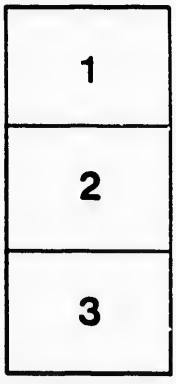

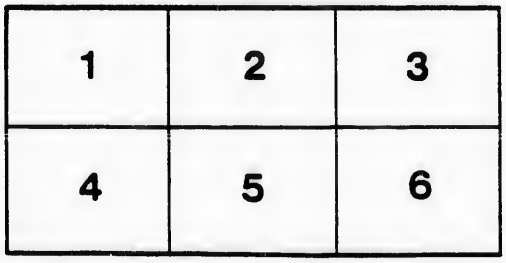

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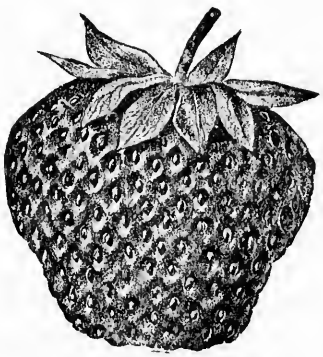
DEPARTMENT OF AGRICULTURE.

OTTAWA . . . . . CANADA.



BULLETIN No. 27.

STRAWBERRIES.

JUNE, 1897.

To the

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To the Honourable
The Minister of Agriculture.

SIR,—I beg to submit for your approval Bulletin No. 27, of the Experimental Farm Series, which has been prepared under my direction by Mr. John Craig, Horticulturist of the Central Experimental Farm.

The rapid extension of strawberry growing has resulted in the production of very large crops of this valuable fruit, especially in the eastern provinces of the Dominion, and almost everywhere strawberries have come into very general use. The ease with which new varieties of this fruit are produced from seed, has resulted in the introduction during the past few years of a large number of new sorts. Facts regarding the quality, productiveness and general usefulness of these as compared with the best of the older varieties are presented in this bulletin in accordance with the experience gained by tests made at the Central Experimental Farm. The best method of preparing the soil and particulars regarding the most successful treatment to secure an abundant crop are fully explained, and remedies suggested for the more common diseases to which the plants are subject.

The fact that this useful fruit can be grown so universally, makes it the more important that practical knowledge as to the best methods of cultivation and the most profitable sorts to grow should be generally disseminated. It is hoped that the information given in this bulletin will aid in encouraging farmers to grow this healthful fruit more generally. Where the use of a plot of ground can be easily had, there seems no good reason why every family should not have an ample supply of strawberries during the warm weather of early summer when such an addition to the diet is most agreeable and healthful.

I have the honour to be,
Your obedient servant.

WM. SAUNDERS,
Director Experimental Farms.

OTTAWA, June 7th, 1897.

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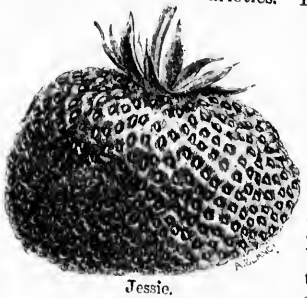
STRAWBERRIES.

(By JOHN CRAIG.)

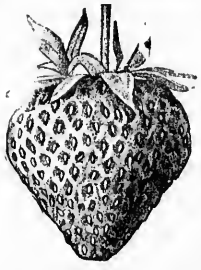
A bulletin (No. 5) was issued on this subject in August, 1889, by Mr. W. W. Hilborn, then Horticulturist of the Central Experimental Farm. This bulletin discussed cultural methods, in addition to giving descriptions of a number of the leading varieties of that time. It is not intended to repeat in the following pages the descriptive notes on varieties already given by Mr. Hilborn, but rather to record experience gained since that time in testing new with old varieties, in addition to giving such collateral data deduced from experiments, bearing upon successful strawberry culture, as have come under our notice.

INTRODUCTION OF NEW VARIETIES.

The ease with which strawberries may be grown from seed, favours the production of new varieties. Each year sees a large crop of seedlings offered with great confidence by strawberry specialists to the public with the assurance that they are possessed of valuable characteristics. The percentage which live through a five years' test is comparatively small and is confined to those having a wide range of adaptability. Many varieties much advertised and widely planted five or six years ago, like Jessie, for instance, have since been almost lost sight of, while other kinds, as Crescent and Wilson, commercial standards at that time, are still found to be more largely cultivated in strawberry growing localities than those of recent production. This is on account of the unstable character of the new kinds. Some are placed upon the market in advance of a thorough test, while others only succeed on certain soils.



Jessie.



Wilson.

QUALITIES OF A GOOD VARIETY.

A variety should not be introduced unless possessing, in a marked degree, a characteristic, or characteristics, which stamps it as superior to varieties already upon the market. Among the desirable qualities to be sought for are, first, quality in fruit; this includes fine flavour, firm texture, attractive colour and desirable form. Second, vigour in the plant; including productiveness, hardiness and freedom from disease. Bright and glossy berries, like Martha, Middlefield, and New Dominion, are usually firmer and bear transportation better than the non glossy kinds with seeds depressed.

Some berries will always be prized by the amateur, while they will be found unprofitable in the commercial plantation, and *vice versa.* On the

whole, it is best to separate fruits into two classes, by making a more or less arbitrary division, based upon quality and productiveness—those fulfilling the demands of the amateur on the one hand, and the needs of the commercial grower on the other. In the annual reports of the Horticulturist of the Central Farm, facts relative to the condition and yield of varieties under trial have been given from year to year. It has been thought advisable to repeat these records in part, in connection with the present article.

STRAWBERRY CULTURE AT LARGE.

Ten years ago strawberry growing was restricted mainly to certain localities supposed to possess in a marked degree favouring conditions. Many localities now growing them freely were supposed at that time to be entirely uncongenial and their culture was not attempted—this is particularly true of the Ottawa district. Since that time the increase in the number of varieties, improvement in quality and general diffusion of knowledge with regard to culture and means of transportation have done much towards extending the industry. There are still certain centres like Picton, in Prince Edward County, Ontario; along the St. Lawrence River and the eastern shores of Lake Ontario, where the industry has in a large measure become a specialized feature of rural labour. It is safe to say that strawberries may be grown successfully in sufficient quantities for home use in all the agricultural portions of Ontario and eastern Canada. In Manitoba and the North-west Territories special precautions must be taken in summer to protect the plants from winds and drought, and extra protection given in winter to guard against severe cold.

METHODS OF CULTURE.

The following instructions referring to the planting and care of strawberries when grown for home use as well as for market purposes were given in Bulletin No. 5, by Mr. Hilborn, and are repeated in the following pages (small type) for the reason that the issue of this Bulletin is now exhausted:—

SOIL.

"Any soil that will produce a good crop of potatoes or other vegetables will answer for strawberries. It should be well drained, either naturally or by tile drains. A rich clay loam is preferable and will usually give the largest yield, but the fruit will not ripen as early as on sandy loam. Avoid if possible a stiff, heavy clay. While a clay loam will give the best results if properly managed, it will not prove satisfactory unless it is well drained and the soil thoroughly prepared in the autumn previous to planting.

PREPARATION OF THE SOIL.

"For profitable growing on a large scale, select, if possible, a piece of well drained clay loam. This should receive a heavy coating of manure in the spring and then be either summer-fallowed or planted with potatoes, vegetables, or some other early crop which can be removed in time to permit of a proper preparation of the land in autumn before it becomes too wet with fall rains. A sub-soiler (see illustration) should follow the common plough,—one that will stir up the sub-soil to the depth of five to ten inches without bringing any of it to the top. Subsoiling is not absolutely necessary, but land thus loosened up will retain moisture longer in time of drought and dry off much more rapidly after heavy rains. The last ploughing in the fall should be thoroughly done and suitable furrows provided, so that all surface water may run off quickly. Early in the spring, as soon as the weather and the condition of the soil will permit, cultivate deeply both lengthwise and crosswise with a two-horse cultivator; harrow down smooth and the land will be ready for planting. Avoid ploughing a heavy soil in the spring for immediate planting.

Gravelly or sandy loam should be heavily manured in the spring, and may be planted with vegetables. All weeds should be kept down during the summer. Plough in the fall and again in the following spring, and harrow thoroughly. No

subsequent tillage will make up for inadequate preparation of the soil for strawberry culture. A stiff clay loam is more difficult to manage than sandy loam. A crop of clover or other green manure turned under will help to make the soil more friable. Coarse barn-yard manure should also be used whenever it can be applied in time to decompose and become well mixed with the soil before planting. Tile drains in such soil require to be much nearer together and should not be too deep, usually not much more than two and a-half feet. In the autumn, before the land becomes too wet, trench it up in high narrow ridges; if done with the plough, turn two furrows together forming a sharp ridge as when prepared for carrots or other roots. Surface drains should be made to take off surplus water quickly. When thus exposed to the action of the frost, a comparatively heavy soil will work down fine and mellow in the spring and give good results. Care must be taken, however, never to stir such soil when wet, either with hoe, plough or cultivator.

TIME TO PLANT.

"Plant as early in the spring as the land can be prepared, as this gives the whole season for growth, and enables the plants to produce a full crop the following year. Fall planting, if done in August, will yield a small crop the following spring, but seldom enough to pay for the extra labour required. (This has been proved by an extensive experiment carried on in 1892 and 1893 J.C.) The principal objection to fall planting is that the plants do not make sufficient root growth to prevent them from lifting in the soil with the repeated freezing and thawing to which they are exposed during the winter and early spring. In any locality where no difficulty is likely to occur from this cause, autumn planting may often be practiced with advantage.

HILL SYSTEM.

"For a city garden, where land is usually scarce, the hill system will generally give very satisfactory results. Plant in rows two feet apart and twelve to fifteen inches apart in the row. Cut off all runners before they have time to take root, thus enabling the plants to make strong stools or hills by the end of the growing season. Any blossoms which appear the same season of planting should be removed. In an unfavourable locality, where much alternate freezing and thawing is likely to occur during winter and early spring, growing in hills is not always successful, as they are more likely to heave with the frost, and the plants do not afford the same protection to each other as when planted in matted rows.

MATTED ROWS.

"For this mode of culture, the rows require to be from two and a half to four feet apart, and the plants twelve to fifteen inches apart in the row. Cut off any blossoms which may appear, also the first runners, until the plants have gained sufficient vigour to send out several strong runners at once, when they should be allowed to take root and form a matted row from six to twelve inches in width. All free growing sorts make too many plants and should have all surplus runners cut off. The plants should not be crowded in the row. From three to six inches apart each way will give the required protection to each other and room to produce fruit of a large size and in abundance.

"There is probably no other class of the community so poorly provided with this fruit as farmers. This should not be the case, as strawberries can be grown with so little expense and trouble, that no one who has land should be without a sufficient supply. Much difficulty has been experienced by some in keeping up a strawberry plot for family use, for the reason that the usual method has been to plant strawberries in some out-of-the-way corner or inclosure where all the work has to be done by hand, and where they rarely get any attention after the first season, except to gather such fruit as may ripen. By the end of the third season the plants will generally be so exhausted, that but little fruit is produced, and the young plants seldom possess that vigour required for starting another plantation successfully, hence they are often given up as too troublesome.

"If the following system is adopted, a crop of strawberries can be grown with little risk of failure:—Select the best piece of land procurable, where the plants can be cultivated with a horse cultivator in the same manner as corn or potatoes. For a family of ten or twelve persons, four rows two hundred feet long will give an ample supply for from three to five weeks, if suitable varieties are selected and reasonable cultivation given. Suppose the plot chosen to be forty feet wide and two hundred feet long. Plant four rows, covering one-half of the plot, as early in the spring as possible, four feet apart and one foot apart in the rows.

"Cut off all the blossoms and first runners until the plants have sufficient strength to send out several strong runners at once (which is usually in July) when these may

be allowed to take root. Stir the soil occassionally with the cultivator and keep the ground free from weeds. The second half of the plot should be well manured and planted with potatoes, and after these are dug in the fall the land should be prepared for planting in the following spring. Plants of the best quality can be obtained from those first planted for this second plot. By following this system a full crop of fruit can be gathered in about fourteen months from the time of planting.

"As soon as the berries are picked, plough up the first plantation, add manure and again prepare the land for planting the following spring. But one crop of fruit is taken from the plants and less time is required in putting out a new plot every spring than in cleaning out the old one. With this method there is no difficulty in keeping up a supply of strong and vigorous plants for replanting—a most important point in successful strawberry culture. A plantation can be made to bear well for several seasons by cleaning out the rows as soon as the last fruit is gathered, cutting them down to about six inches in width and giving thorough cultivation until the autumn; but more experience is required to manage the plants under this method than with the renewal plan.

"One row each of the following varieties:—Crescent, Wilson, Warfield and Parker Earle will make a collection that will give a succession of fruit for a month in a favourable season. In any locality where other sorts are known to succeed and are more easily obtained, they can be used in place of those named. It is of great importance to procure plants as near home as possible, or from those who will take much care in packing them. Failure is often due to the careless handling of the plants while out of the ground or to want of care in packing them.

PLANTING.

After the land has been well prepared, mark off with a corn marker, or stretch a line to plant by. Take pains to have the rows straight; it adds to the appearance of the plot and time is also saved in the cultivation. Trim off all dead leaves and old runners from the plants; shorten the roots to three or four inches, keep them moist and where the wind cannot reach them while out of the ground. When planting, make a hole deep enough to admit the roots without doubling them up. Take the plant in the left hand, place the crown on a level with the surrounding soil, spread the roots out fan shaped, fill in the soil, working it in among them, and press so firmly that by giving a quick jerk on a leaf it will break off without moving the plant. Only plants of the previous year's growth should be used.

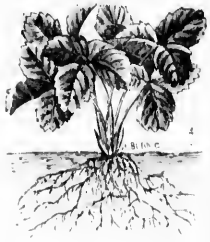


Fig. 1.

Fig. 1 shows the correct way of setting the plant. In fig. 2, the roots are all in a bunch instead of being spread out evenly as in fig. 1. They cannot, therefore, make such a vigorous growth. When planted too deep, as in fig. 3, they are nearly always smothered and will rot off at the crown. In fig. 4, the crown is above the level of the surrounding soil and therefore too high. When thus planted they generally wither and die in a few days."

AN EXPERIMENT IN SETTING PLANTS.

In setting out the new plantation in the fall of 1890, two methods of planting were adopted. Half the number of plants of each variety were planted in the ordinary way, that is by (1) making a hole deep enough to admit the roots without doubling them up, then spreading them carefully in all directions as much as possible, filling in the soil by hand, taking care to compact it firmly; (2) by setting them in a cleft made with a spade. To do this the spade was struck into the ground across the line of the row. Into this cleft the roots were inserted fan-shaped, and spread as much as the opening would admit, and the earth then packed well about them. This method requires a man and boy—the former to operate the spade, the latter to set the plants—and is much more rapid than the old style.

Results secured were:

1. A perfect stand of plants was obtained from both methods.

2. No difference in the health and vigour of the plants comprising the two sets was noticed.

The sub-soiler following the plough.

A spring planting. Photographed July 4th.

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3. The spade method being more rapid, cheaper and equally satisfactory, is therefore recommended, especially in setting commercial plantations. Commercial growers, use in many instances, strong trowels, and plant alongside a garden line.

Fig. 2.

Fig. 3.

Fig. 4.

CULTIVATION.

"Nearly all soils are full of weed seeds. When these germinate and appear above ground, cultivation should begin. Frequent stirring of the soil will destroy these weeds, and during drought will cause sufficient moisture to be retained in the soil to enable the plants to make a strong growth.

"Never allow weeds to grow in the strawberry patch. Cultivate carefully and thoroughly. By running the cultivator the same way every time, the plants that are newly rooted will not be so readily disturbed. Care must be taken not to stir the soil immediately around the plants, especially early in the season, as this is often the cause of their making feeble growth.

MULCHING.

"The crop of strawberries will very much depend on how well the plants have been protected during the winter and early spring. It is not the severe freezing that injures the plants so much as the oft-repeated freezing and thawing. The use of a mulch of coarse manure, marsh hay, or clean wheat straw, is most effectual in preventing injury from this cause. Oat straw generally packs too closely and does not admit air freely enough to either soil or plants, especially on heavy land. As soon as the ground freezes in the autumn sufficiently hard to prevent horses and wagon from breaking through the crust, the mulch should be applied. Most of the material should be placed between the rows with just enough immediately over the plants to nearly cover them from sight. Before growth begins in the spring, draw the covering off from the plants and let it remain between the rows until after the fruit has been gathered; it thus serves the triple purpose of keeping the fruit clean, the soil cool and causes it also to retain longer the moisture gathered early in the season—which is all-important to the production of a large crop of fruit.

"In localities where late frosts are likely to occur at the time of blossoming, the mulch should be removed just before growth begins in spring and very shallow cultivation given. The soil becomes warmer when thus loosened and the blossoms often escape a frost, when the land is thus treated, which would otherwise injure them to a considerable extent.

MULCHING EXPERIMENT.

On well drained sandy loam, particularly in localities where the snowfall is heavy, the advantages of mulching are not so apparent, and occasionally it is unnecessary. In the fall of 1893 an experiment in mulching—that is, giving winter protection—was tried on soil of this description. The results as shown below are in favour of non-mulching. Half of the plants

of each row made up of the following varieties was covered with wheat straw after the surface ground was stiffened by frost in the autumn :—

Variety.	Condition.	Spring, 1894.
	Mulched.	Not mulched.
Royal Hautbois	½ to ½ killed...	½ killed.
Miller's Seedling, O. 2	½ to ½ " ...	½ "
Pineapple	½ " ...	½ "
Warfield No. 2	1/16 " ...	1/16 "
Belmont	½ " ...	½ "
Cohansick	½ " ...	½ "

The unmulched plants appeared to be stronger in the spring than those mulched. Later in the summer there was little difference. It is undoubtedly safer, notwithstanding the above results, one year with another, to cover the plants. Last winter was fatal to plants in nearly all unprotected beds in the Ottawa Valley.

BLOSSOMS.

Fig 5. Bi-sexual.

"Strawberry blossoms are divided into two classes, 1st, bi-sexual or perfect. These contain stamens or male organs, and pistils or female organs, as in Fig. 5, hence are called perfect or bi-sexual, marked thus (B). 2nd, pistillate or imperfect, which contain pistils only, or female organs, as in fig. 6.

"Pistillate varieties usually yield the largest crops of fruit when properly fertilized. This may be effected by planting one or more rows of a perfect-flowering sort to every four or five rows of those with imperfect blossoms."

GENERAL REMARKS.

Fig. 6. Pistillate.

Among the many errors which beginners in strawberry growing may fall into, none is attended with more serious consequences than that of limiting a plantation to a single variety, and that one not bi-sexual. At the beginning of the picking season last year, I was requested by a young strawberry grower in this vicinity to visit and examine his grounds for the purpose of investigating the cause of the unproductiveness of his thrifty plants. As the plants were in flower it required only a glance to arrive at a solution of the problem. The plants were nearly, if not quite all of a pronounced pistillate type. Therefore the unfruitfulness was due to the inability of the blossom to fertilize itself. He was advised at once to replace every third or fourth row with a strong growing free producer of pollen like Capt. Jack, New Dominion, Beder Wood or Williams. It is well known that the pistillate varieties under favourable circumstances are the most productive, and the mistake came about in this instance, by the grower making up his new plantation entirely of the variety which had been most productive in the old. Another point which it is well to remember in commercial berry growing, is that the early berries are by far the most profitable. It is not here, meant to convey the idea that the earliest varieties bring the most money because these are often comparatively unproductive, but rather that the plantation furnishing the bulk of its berries in the fore part of the season, is far more profitable than

another field which may perhaps produce a greater quantity, but which covers a longer and later fruiting period. In choosing a location for strawberries it is therefore extremely desirable that a piece of land be chosen which is warm and early, though well drained, yet not dry in nature, because the strawberry plant requires a good deal of moisture at fruiting time. Some growers continue the plantation for three years in the same place on account of the habit of the old plants ripening their fruit somewhat earlier than young plants. A difference of two or three days in time of ripening affects the financial result quite appreciably.

SINGLE CROP SYSTEM.

In the leading strawberry growing sections of Ontario, the practice of taking only one crop of fruit from each planting is gaining in favour. The plants are set in the spring in rows four feet apart and 12 to 15 inches apart in the row. The ground is kept scrupulously clean and free from weeds by running the cultivator between the rows once a week or thereabouts, till the middle of August. The blossoms are removed as they appear and the runners are cut off untill cultivation ceases. By the end of the season, if a satisfactory growth has been made, the rows will have attained a width of about 18 inches. Strong growing varieties if allowed to run unchecked will exceed this width. Mulching the plants in the autumn with some protecting material is necessary to success in eastern Ontario and Quebec, particularly on soils liable to heave with the frost and in situations where the snow fall is light and the soil subject to frequent freezing and thawing in spring and fall. The plantation should always be mulched with straw during the picking season to ensure clean berries. In Prince Edward County, Ontario, a clover sod well worked down with a hoed crop and followed by a dressing of barn-yard manure is a favourite method of preparing for strawberries. When the crop of fruit is harvested the plants are turned under and the ground seeded to rye, or fall wheat with clover. Following a system of this kind a setting is made each spring. In order to provide himself with plants the grower keeps a more or less permanent bed in which the varieties he proposes to cultivate are grown in blocks by themselves. This insures plants true to name and enables him to make the proper mingling of bi-sexual, (staminate) and pistillate varieties. This system, while it appears rather prodigal in some respects, often saves much loss from the ravages of white grub and injury by leaf rust which are frequently most injurious the second year. The fruit is also larger and firmer on young plants, though slightly later than on two year olds. Yearling plants are also usually less injured by winter than two year olds.

RENEWING OLD BEDS.

The amateur may find it convenient to renew his strawberry bed by the following method: As soon as the crop is gathered, remove the mulch which was placed between the rows during the picking season, dress the interspaces with well rotted manure, or wood ashes, using the latter at the rate of 100 bushels per acre. If the fertilizer is of the nature of stable manure it should be well worked into the soil, if wood ashes or a commercial fertilizer, cultivate, or rake in lightly; then train the runners into these spaces. By the middle of September the young plants will have become firmly rooted. A line should then be stretched along each side of the row, separating the old plants from the new. With a spade or grass edging knife follow the line cutting the runners and then turn under the old plants with a spade, or if the plantation is large enough, a plough may be used. This plan will not work out successfully in the long run as the varieties become eventually much mixed, and the proportion of pistillates and staminates disarranged, by the stronger crowding out the weaker growing kinds.

STRAWBERRIES—Test of Varieties.

Variety.	Year.	Sex.	When Planted.	Date of Blossoming.	Date of First Picking.	Date of Last Picking.	Length of Row.	Yield in Boxes.
							Ft.	
Auburn	1894	P.	Sp'ng 1893	.....	June 25..	July 11..	60	17
do	1895	P.	do 1893	May 30..	do 20..	do 2..	60	9
do	1896	P.	do 1893	do 25..	do 18..	do 6..	60	3¾
Anna Forest	1896	P.	do 1894	do 25..	do 20..	do 6..	30	8
Australian Everbearing	1896	B.	May 1895	do 30..	do 24..	do 6..	30	2¼
Albert	1896	P.	do 1895	June 5..	July 2..	do 11..	30	2½
Arrow	1896	P.	do 1895	May 22..	June 20..	do 6..	30	4½
Ada	1896	P.	do 1895	do 25..	do 22..	do 6..	30	4½
Belmont	1894	B.	do 1893	.....	do 25..	do 11..	60	16¼
do	1895	B.	do 1893	May 29	do 29..	.....	60	2¼
do	1896	B.	do 1893	do 31..	do 24..	July 2..	60	1½
Black Giant	1894	B.	do 1893	.....	do 25..	do 3..	60	8
do	1895	B.	do 1893	May 28..	do 29..	.....	....	1
do	1896	B.	do 1893	do 25..	.....	.....	....	...
do	1894	P.	do 1893	.....	June 22..	July 11..	60	30¼
do	1895	P.	do 1892	May 25..	do 18..	do 4..	60	38
do	1896	P.	do 1893	do 22..	do 20..	do 2..	60	8¾
Beder Wood	1894	B.	do 1893	.....	do 23..	do 11..	60	29½
do	1895	B.	do 1893	May 25..	do 18..	June 28..	60	8½
do	1896	B.	do 1893	do 23..	do 13	July 11..	60	17½
Beverly	1894	B.	do 1893	.....	do 25..	do 11..	60	39½
do	1895	B.	do 1893	May 25..	do 22..	do 2..	60	9½
do	1896	B.	do 1893	do 24	do 20..	do 6..	60	9½
Belt (Wm.)	1896	B.	do 1895	do 24..	do 20..	do 16..	30	6
Barton's	1894	P.	do 1893	.....	do 25..	do 11..	60	35½
do	1895	P.	do 1893	May 27..	do 20.	do 9..	60	11
do	1896	P.	do 1893	do 25	do 20..	do 11..	60	11¾
Bubach	1894	B.	do 1893	.....	do 22..	do 11..	60	23¾
do	1895	B.	do 1893	May 23	do 22..	do 2..	60	3½
do	1896	B.	do 1893	do 25..	do 22..	June 27..	60	2
Beecher, H. W.	1896	B.	do 1895	June 1..	do 24..	July 11..	30	7½
Brandywine	1896	B.	do 1895	May 30..	do 27..	do 6..	30	1½
Bissel	1896	P.	do 1895	do 25..	do 22..	do 11..	30	9
Buster, or No. 53	1896	P.	do 1895	do 31..	do 24..	do 11..	30	7¾
Burnette	1896	B.	do 1895	do 31..	do 27..	do 2..	30	¾
Barry	1896	....	do 1895	do 31..	do 30..	.....	30	¼
Bomba	1896	B.	do 1895	do 23..	do 20..	July 2..	30	6¾
Belle	1896	B.	do 1893	do 30..	do 24..	do 11..	30	4¼
Beebo	1896	....	do 1895	do 25..	do 24..	.....	30	2
Cohansick	1894	B.	do 1895	....	do 28..	July 11..	60	11¾
do	1895	B.	do 1893	May 27..	do 29..	do 9..	60	7
do	1896	B.	do 1893	do 25..	do 21..	do 11..	60	1½
Crescent	1894	P.	do 1893	.....	do 22..	do 11..	60	40
do	1895	P.	do 1893	May 25..	do 20..	do 9..	60	31½
do	1896	P.	do 1893	do 25..	do 18..	do 6..	60	18
Cameronian	1894	B.	do 1893	.....	do 25..	do 11..	60	20
do	1895	B.	do 1893	May 27..	do 29..	.....	60	1¼
do	1896	B.	do 1893	do 31..	do 22..	July 2..	60	2¼
Captain Jack	1894	B.	do 1893	.....	do 25..	do 11..	60	17
do	1895	B.	do 1893	May 27..	do 18..	do 9..	60	17¼
do	1896	B.	do 1893	do 25..	do 20..	do 11..	60	9½
Crawford	1894	B.	do 1893	.....	do 25..	do 5..	60	7
do	1895	B.	do 1893	May 29..	do 28..	.....	60	¾
Chair's	1895	B.	do 1894	.....	do 26..	July 2..	30	3½
do	1896	....	.....	1894 June 2..	do 24..	do 11..	30	2¼
Charlie	1895	B.	Sept. 1891	.....	do 20..	do 4..	30	10¼
Clark's Early	1895	B.	do 1894	.....	do 24..	do 26..	30	¾
do	1896	....	.....	May 31..	do 22..	do 2..	30	2¼
Charleston	1896	B.	Sp'ng 1895	.....	do 22..	do 11..	30	13¼
Caughall Seedling	1896	P.	do 1895	June 1..	do 27..	do 11..	30	4¼
Child's First Season	1896	B.	do 1895	do 5..	do 22..	do 6..	30	3½
Cardinal	1896	B.	do 1895	May 31..	do 20..	.....	30	1
Columbian	1896	B.	do 1895	do 5..	do 22.	July 6..	30	3¾
Child's	1896	P.	do 1895	do 25..	do 22..	do 6..	30	1¼
Daisy	1894	P.	do 1893	....	do 25..	do 11..	60	16½

Strawberries—Test of Varieties.

Variety.	Year.	Sex.	When Planted.	Date of Blossoming.	Date of First Picking.	Date of Last Picking.	Length of Row.	Yield in Boxes.
							Ft.	
Daisy	1895	P.	Sp'ng 1893	May 29..	June 20..	July 2..	60	9
do	1896	P.	do 1893	do 25..	do 20..	June 30..	60	9½
Dayton	1891	B.	do 1893	....	do 23..	July 5..	60	16½
do	1895	B.	do 1893	May 27..	do 26..	....	60	3
do	1896	B.	do 1893	do 25..	do 20..	June 30..	60	7½
Daniel Boone	1894	P.	do 1893	.....	do 25..	July 5..	60	15½
do	1895	P.	do 1893	.....	do 20..	do 2..	60	5½
do	1896	P.	do 1893	May 30..	do 24..	do 11..	60	12
Dew	1895	B.	do 1894	....	July 9..	....	30	
do	1896	...	do 1894	May 27..	June 24..	July 6..	30	3½
Dora	1896	P.	do 1894	do 29..	do 20..	do 6..	30	10½
Eureka	1894	P.	do 1894	.....	do 25..	June 30..	60	2½
Early Canada	1894	B.	do 1893	....	do 22..	July 5..	60	11½
do	1895	B.	do 1893	May 23..	do 26	.....	60	
do	1896	B.	do 1893	do 24..	do 22..	.....	60	
Edward's Favorite	1895	B.	do 1894	....	do 26	July 9..	30	1½
do	1896	...	do 1894	June 1..	do 27..	do 11..	30	1½
Equinox	1896	B.	do 1894	May 31..	do 17..	do 11..	30	1½
E. P. Roe	1886	B.	do 1895	do 25..	do 30..	do 11..	30	
Enhance	1896	B.	do 1895	do 27..	do 24..	do 11..	30	6½
Enormous	1896	P.	do 1895	June 1..	do 22	do 6..	30	6½
Empress of India	1896	P.	do 1895	May 31..	.....	do 6.	30	2
Epping	1896	P.	do 1895	do 31..	June 20..	do 6..	30	4½
Eleanor	1896	P.	do 1895	do 31..	do 24..	.....	30	
Gandy	1894	B.	do 1893	.....	do 28..	July 11..	60	9
do	1895	B.	do 1893	June 1..	do 22..	do 9..	60	9½
do	1896	B.	do 1893	May 31..	do 24..	do 11..	60	13
Green Prolific	1894	P.	do 1893	.....	do 25..	do 11..	60	15
do	1895	P.	do 1893	May 28	do 18..	June 29..	60	7½
do	1896	B.	do 1893	do 25..	do 20..	July 6..	60	8½
Gunton Park	1896	B.	do 1895	do 31..	....	....	30	
Garibaldi	1894	P.	do 1893	....	June 28..	July 11..	60	7½
do	1895	P.	do 1893	June 1..	do 29..	do 2..	60	4½
do	1896	P.	do 1893	May 25..	do 27..	do 11..	60	4
General Putman	1896	B.	do 1895	do 22	do 22..	do 22..	30	8
Governor Hoard	1895	B.	do 1894	....	do 25..	do 11..	30	8½
do	1896	B.	do 1894	.....	do 18..	do 6..	60	2½
Gertrude	1896	....	....	May 23..	do 20..	do 6..	30	3½
Gillespie	1895	B.	do 1894	.....	do 25..	do 5..	30	1½
do	1896	B.	....	.....	do 22..	June 24..	30	2½
Gardner	1896	B.	do 1895	May 22..	do 20..	July 6..	30	5½
Gem	1896	P.	do 1895	June 1..	do 22..	do 6..	30	3½
Greenville	1896	P.	do 1895	.....	do 22..	do 11..	30	9
Giant	1896	....	do 1895	May 4..	do 30..	do 11..	30	9½
Hoffman's Seedling	1894	B.	do 1895	.....	do 25..	do 11..	60	11½
do	1895	B.	do 1895	May 27..	do 29..	.....	60	
do	1896	B.	do 1895	do 24..	do 20..	June 30..	60	3½
Haverland	1894	B.	do 1895	... .	do 22..	July 11..	60	27
do	1895	B.	do 1895	May 25	do 20..	do 9..	60	5½
do	1896	B.	do 1895	do 24..	do 22..	do 11..	60	8½
Hope, or 53 H	1896	B.	.....	do 27..	do 22..	do 2..	30	4½
Hale, B.I.C	1896	P.	.....	do 31..	do 27..	do 2..	30	4½
Itasca	1894	B.	do 1893	....	do 30..	do 11..	60	24½
do	1895	B.	do 1893	May 29..	do 26..	do 4..	60	5½
do	1896	B.	do 1893	do 31..	do 24..	.....	60	2
Iowa Beauty	1894	B.	do 1893	.....	do 25..	July 11..	60	11½
do	1895	B.	do 1893	May 20..	do 26..	do 9..	60	2½
do	1896	B.	do 1893	do 24..	do 20..	do 2..	60	3½
Ivanhoe	1896	P.	do 1895	do 31..	do 22..	do 2..	30	4
John Little	1894	B.	do 1893	.....	do 25..	do 11..	60	35
do	1895	B.	do 1893	May 25.	do 18..	do 9..	60	22
do	1896	B.	do 1893	do 25..	do 22..	do 2..	60	4
James Vick	1894	B.	do 1893	.... ..	do 25..	do 11..	60	38½
do	1895	B.	do 1893	May 28..	do 20..	do 9..	60	4
do	1896	B.	do 1893	do 25..	do 24..	do 11..	60	6½

Strawberries—Test of Varieties.

Variety.	Year.	Sex.	When Planted.	Date of Blossoming.	Date of First Picking.	Date of Last Picking.	Length of Row.	Yield in Boxes.
							Ft.	
Jay Gould	1886	P.	Sp'ng	1895 May 31..	June 22..	June 27..	....	3
King of the North	1894	B.	do	1893	do 25..	July 11..	60	9¼
do	1895	B.	do	1893 May 25..	do 26..	.....	60	2¼
Kentucky	1896	B.	do	1895 June 1..	do 24..	July 11..	30	3
Khekita	1896	P.	do	1895 May 24..	do 22..	do 6..	30	5½
Logan	1891	B.	do	1893	do 25..	do 11..	60	14
do	1895	B.	do	1893 May 28..	do 29..	.....	60	¼
do	1896	B.	do	1893 do 29..	do 20..	July 6..	60	2½
Leader	1891	B.	do	1893	do 25..	do 3..	60	1
do	1895	B.	do	1893 May 27..	do 20..	do 2..	60	2½
do	1896	B.	do	1893 do 25..	do 20..	do 6..	60	3¼
Lord Suffield	1896	B.	do	1895	do 21..	do 2	30	2½
Lovett	1896	B.	do	189 May 31.	do 21..	do 11..	30	3½
Laxton's No. 1	1896	B.	do	1895 do 27..	do 30..	.....	30	¼
Moore's Prolific	1891	B.	do	1893	do 25..	July 11..	60	2¼
do	1896	B.	.....	May 31..	do 22..	June 27..	30	¾
Mammoth	1894	B.	do	1893	do 25..	July 11..	60	6¼
do	1895	B.	do	1893 May 27..	do 26..	June 29..	60	¼
do	1896	B.	do	1893 do 30..	do 27..	.....	60	¼
Miller's Seedling, O. 2	1894	B.	do	1893	do 22..	July 5..	60	16¼
do	1895	B.	do	1893 May 27..	do 26..	do 2..	60	2¾
do	1896	B.	do	1893 do 31..	do 24..	June 30..	60	¼
Moline or Stone's No. 65	1896	P.	do	1895 do 25..	do 20..	July 6..	30	6¼
Miller's Seedling H. 11	1894	P.	do	1893 do 30..	do 25..	do 11..	60	14¾
do	1895	P.	do	1893 do 29..	do 22..	do 2..	60	8
Mrs. Cleveland	1891	P.	do	1893	do 23..	do 11..	60	17½
do	1895	P.	do	1893 May 27..	do 20..	do 4..	60	10½
do	1896	P.	do	1893 do 24..	do 16..	do 11..	60	6¼
Middlefield	1894	P.	do	1893 do 24..	do 28..	do 11..	60	9¾
do	1896	P.	do	1893 do 25..	do 27..	do 6..	60	¾
Martha	1894	P.	do	1893	do 25 .	do 11..	60	34½
do	1895	P.	do	1893 do 27..	do 22..	do 2..	60	10½
do	1896	P.	do	1893 do 23..	do 20..	do 2..	60	11
Mineola	1896	P.	do	1895 June 2..	do 24..	do 6..	30	2¼
Mary	1896	P.	do	1895 do 3..	.....	do 6..	30	¼
Margaret	1896	B.	do	1895 May 25..	June 22..	do 6..	30	4
Maple Bank	1896	P.	do	1895 do 31..	do 22..	do 6..	30	13
Monarch of the West	1896	B.	do	1895 do 25..	do 22..	do 6..	30	2¾
Marshall	1896	B.	do	1895 do 31..	do 30..	do 6..	30	2¼
Nicanor	1894	B.	do	1893	do 22..	do 5..	60	9
do	1895	B.	do	1893 May 20..	do 29..	do 2..	60	1½
do	1896	B.	do	1893 do 19..	do 24..	.....	60	½
Norman	1894	B.	do	1893	do 25..	July 5..	60	9½
do	1895	B.	do	1893 May 25..	do 24..	do 4..	60	3½
New Dominion	1894	B.	do	1893	do 25..	do 11..	60	30
do	1895	B.	do	1893 May 25..	do 22..	do 9..	60	19¼
do	1896	B.	do	1893 do 24..	do 22..	do 2..	60	1¾
Noble	1896	B.	do	1895 do 29..	do 22..	June 30..	30	1½
Osceola	1894	B.	do	1893	do 22..	do 30..	60	13½
do	1895	B.	do	1893 May 25..	do 18..	do 26..	60	2¼
do	1896	B.	do	1893 do 29..	do 22..	.....	60	¼
Orange County	1896	P.	do	1895	do 20..	July 6..	30	6
Ostego	1896	P.	do	1895 May 29..	do 27..	do 11..	30	6½
Oregon Everbearing	1896	B.	do	1895 do 25..	do 22..	.....	30	¼
Pearl	1894	B.	do	1893	do 22 .	July 11..	60	26½
do	1895	B.	do	1893 May 25..	do 18..	do 2..	60	12½
do	1896	B.	do	1893 do 28..	do 20..	do 6..	60	7¼
Pine Apple	1894	B.	do	1893	do 23..	do 11..	60	19¼
do	1895	B.	do	1893 May 27..	do 20..	do 9..	60	5
do	1896	B.	do	1893 do 25..	do 16..	do 11..	60	6½
Prince of Berries	1894	B.	do	1893	do 30..	do 11..	60	16
do	1895	B.	do	1893 June 1..	July 2..	.....	60	¾
do	1896	B.	do	1893 do 2..	June 30..	July 11..	60	1½
Parker Earle	1894	B.	do	1893	do 25..	do 11..	60	24½
do	1895	B.	do	1893 May 25..	do 22..	do 9..	60	21¼

Strawberries—Test of Varieties.

Variety.	Year.	Sex.	When Planted.	Date of Blossoming.	Date of First Picking.	Date of Last Picking.	Length of Row.	Yield in Boxes.
							Ft.	
Parker Earle	1896	B.	Sp'ng 1893	May 25..	June 22..	July 11..	60	
Princess	1894	P.	do 1893		do 25..	do 11..	60	15
do	1895	P.	do 1893	May 27..	do 24..	June 29..	60	16½
do	1896	P.	do 1893	do 25..	do 18..	July 2..	60	4½
Paris King	1896	B.	do 1895	do 30..	do 20..	do 11..	30	5½
Plow City	1896	B.	do 1895	do 31..	do 30..	do 11..	30	4½
Phillip's Seedling	1896	B.	do 1895	do 25..	do 20..	do 6..	30	1
Ruby	1894	B.	do 1893				30	
Rio	1895	B.	do 1894		June 18..	July 9..	30	2½
do	1896		do 1894	May 24..	do 22..	do 6..	30	7½
Robinson	1895	B.	do 1894		do 18..	do 9..	30	6½
do	1896		do 1894	do 25..	do 20..	do 11..	30	7½
Stayman's No. 1	1894	P.	do 1893		do 22..	do 11..	60	37½
do	1895	P.	do 1893	May 27..	do 18..	do 9..	60	20½
do	1896	P.	do 1893	do 25..	do 20..	do 11..	60	10
Seneca Queen	1894	B.	do 1893		do 22..	do 5..	60	36½
do	1895	B.	do 1893	May 25..	do 18..	do 9..	60	6
do	1896	B.	do 1893	do 24..	do 22..	do 6..	60	13½
Shirts	1894	B.	do 1893		do 25..	do 11..	60	7
do	1895	B.	do 1893	May 29..	do 26..	do 2..	60	4½
do	1896	B.	do 1893	do 31..	do 24..	do 11..	60	5½
Standard	1894	B.	do 1893		do 22..	do 11..	60	11½
do	1895	B.	do 1893	May 28..	do 20..	do 9..	60	14½
do	1896	B.	do 1893	do 25..	do 16..	do 2..	60	4½
Sharpless	1894	B.	do 1893		do 22..	do 11..	60	9½
do	1895	B.	do 1893	May 27..	do 20..	do 9..	60	3½
do	1896	B.	do 1893	do 31..	do 22..	do 6..	60	3½
Shuckless	1894	B.	do 1893		do 30..		60	
do	1895	B.	do 1893	May 30..	do 24..	July 2..	30	2½
do	1896	B.	do 1893	do 25..	do 30..	do 6..	30	2½
Shuster's Gem	1896	P.	do 1895		do 20..	do 11..	30	6½
Swindle	1895	B.	Sept. 1894		do 22..	do 9..	30	5½
do	1896	B.	Sp'ng 1894	May 24..	do 22..	do 11..	30	9½
Sandoval	1895	B.	do 1894		do 26..	do 4..	30	2½
do	1896	B.	do 1894	May 25..	do 27..	do 11..	30	2½
Surprise	1895	B.	do 1894	do 27..	do 22..	do 4..	60	12½
do	1896	B.	do 1884	do 28..	do 24..	do 11..	60	5½
Staples	1896	B.	do 1895		do 20..	do 2..	60	4½
Sunrise	1896	P.	do 1895	May 31..	do 22..	do 2..	30	4½
Smith's Seedling	1896	B.	do 1895	do 24..	do 18..	do 6..	30	9½
Scarlet Queen	1896	P.	do 1895	June 2..			39	
do Ball	1896	P.	do 1895		June 30..	July 17..	30	7½
Sensation	1896	B.	do 1895	May 30..	do 30..		30	
Turner's Beauty	1894	B.	do 1893		do 22..	July 3..	60	9½
do	1895	B.	do 1893	May 27..	do 20..	June 29..	60	11½
do	1896	B.	do 1893	do 24..	do 20..	July 11..	60	33½
Tennessee Prolific	1895	B.	do 1894	do 24..	do 18..	do 9..	30	7½
do	1896		do 1894	do 24..	do 22..	do 6..	30	6½
Thompson's Late, 66	1895	P.	do 1894	do 31..	do 20..	do 9..	30	7½
do	1896	P.	do 1894	do 31..	do 27..	do 11..	30	10½
Teutonia	1896	B.	do 1895	do 31..		do 6..	30	2
Van Deman	1894	B.	do 1893		June 22..	do 11..	60	35½
do	1895	B.	do 1893	May 25..	do 20..	do 9..	60	8½
do	1896	B.	do 1893	do 22..	do 18..	do 11..	60	9½
Victor Hugo	1896	B.	do 1895	do 25..	do 24..	do 2..	30	1½
Warfield No. 2.	1894	P.	do 1893		do 22..	do 11..	60	37½
do	1895	P.	do 1893	May 29..	do 18..	do 4..	60	23½
do	1896	P.	do 1893	do 26..	do 18..	do 11..	60	17½
Windsor Chief	1894	P.	do 1893		do 25..	do 11..	60	25½
do	1895	P.	do 1893	May 27..	do 18..	do 9..	60	33½
do	1896	P.	do 1893	do 25..	do 20..	do 17..	60	13½
Wonderful	1894	P.	do 1893		do 22..	do 11..	60	22½
do	1895	P.	do 1893	May 27..	do 18..	do 9..	60	15½
do	1896	P.	do 1893	do 30..	do 24..	June 30.	60	2½
West Brook	1894	P.	do 1893		do 22..	July 5..	60	12½

STRAWBERRIES—Test of Varieties.

Variety.	Year.	Sex.	When Planted.	Date of Blossoming.	Date of First Picking.	Date of Last Picking.	Length of Row.	Yield in Boxes.
							Ft.	
West Brook	1895	P.	Sp'ng 1893	May 27..	June 18..	July 9..	60	4
Westlawn	1894	P.	do 1893	....	do 22..	do 5..	60	9
do	1895	P.	do 1893	May 29..	do 20..	do 2..	60	13
do	1896	P.	do 1893	do 25..	do 20..	do 11..	60	12
Weston	1896	P.	do 1895	.... ..	do 24..	do 11..	30	5
Williams	1894	B.	do 1893	.....	do 22..	do 11..	60	31
do	1895	B.	do 1893	May 29..	do 22..	do 9..	60	17
do	1896	B.	do 1893	do 31..	do 22..	do 11..	60	8
Wilson	1894	B.	do 1893	.....	do 22..	do 5..	60	26
do	1895	B.	do 1893	May 27..	do 18..	do 9..	60	17
do	1896	B.	do 1893	do 25..	do 20..	do 6..	60	5
Woolverton	1894	B.	do 1893	.....	do 25..	do 5..	60	8
do	1895	B.	do 1893	June 4..	do 26..	June 29..	60	3
do	1896	B.	do 1893	May 25..	do 24..	do 30..	60	1
Yale	1894	B.	do 1893	.....	do 30..	July 11..	60	6
do	1895	B.	do 1893	May 29..	do 24..	do 9..	60	5
do	1896	B.	do 1893	do 31..	do 27..	do 6..	60	2
Young's Seedling	1896	B.	do 1895	do 25..	do 24..	do 11..	....	2
1001	1894	B.	do 1893	.....	do 25..	do 11..	60	23
do	1895	B.	do 1893	May 27..	do 22..	do 4..	60	11
do	1896	B.	do 1893	do 24..	do 20..	do 11..	60	3

PRODUCTIVE VARIETIES.

The following varieties are among the most productive of those which have been under test for five or more years. The best of these are marked thus *

PISTILLATE.

*Crescent,
Bartons,
*Boynton,
*Bubach,
*Haverland,
Martha,
Seneca Queen,
Staymans No. 1,
*Warfield,
Windsor Chief,

BI-SEXUAL, (PERFECT.)

*Beder Wood,
Beverley,
Jas. Vick,
*New Dominion,
*Parker Earle,
Van Deman,
*Williams.

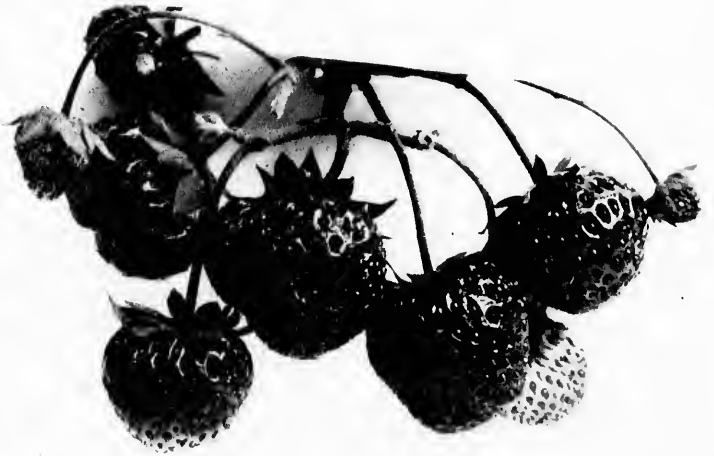
EARLY VARIETIES.

Beder Wood, B.
Boynton, P.
Crescent, P.
Leader, B.
Miss Cleveland, P.
Pearl, P.
Scarlet Ball, B.
Wilson, B.
Warfield, P.

LATE VARIETIES.

Haverland, B.
Martha, P.
Parker Earle, B.
New Dominion, B.
Seneca Queen, B.
Sharpless, B.
Shuckless, B.
Williams, B.

ven months after planting. Photographed, July 4th.



Thompson's Late.

In setting a plantation some attention should be given to arranging or uniting the varieties so that those which bloom at or about the same time are planted in adjoining rows. Pistillate varieties as a rule are more productive than the perfect flowered kinds. By glancing at the above selections a suitable arrangement may be effected.

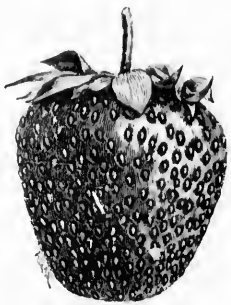
Among those on trial since the spring of 1895, the following by reason of productiveness, quality and vigour of plant appear worthy of trial :—

PISTILLATE.

Bissel,
Greenville,
Thompson's Late,
Buster,
Scarlet Ball,

BI-SEXUAL, (PERFECT.)

Belt (Wm.)
Marshall,
Tennessee Prolific,
Charlie.



Pearl.

VARIETIES FOR THE HOME GARDEN.

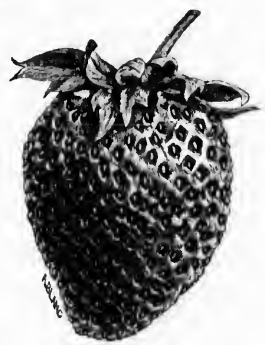
In selecting for home use vigour of plant and quality of fruit should be the chief essential to keep in mind. The following appear as tested here to be specially valuable from the amateur standpoint :—

Pearl,
Martha,
Prince of Berries,
Greenville,
Timbrell,
Bubach,
Belle,
Brandywine,
Beverly.

COMMERCIAL VARIETIES OLD AND NEW.

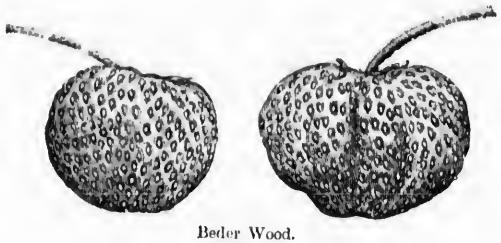
To comply with the demands of the commercial grower, a variety must be a good grower, be productive and produce fruit firm enough to bear transportation well.

Haverland and Warfield with Crescent and Wilson are probably the most popular varieties at the present time. Parker Earle, Gandy, and Williams are favourite late varieties. Beder Wood is rather soft and light in colour, though possessing many other valuable qualities. Williams is prized in southern Ontario, but is often "white tipped." Michel (Michel's early) has proved almost barren on sandy soil. After a trial extending over three years, with plants received from different sources, I have been forced to pronounce it worthless in this locality.



Haverland.

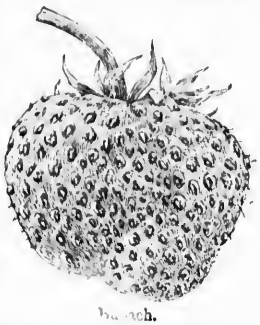
BEDER WOOD B.—This is valuable as a pollenizer. It is early and productive, but the berries are scarcely firm enough to stand shipment well Fair, in size and quality.



Beder Wood.

BEVERLY, B.—A strong grower with light coloured foliage. Fruit stalks long and stout. Berry, medium to large, roundish conical, light red, seeds deeply set, rather soft, quality good. An amateur variety.

BOYNTON, P.—Received from M. Crawford, Cuyahoga, Ohio. Planted spring of 1892. It proved a poor grower the first year. The next season it grew much more vigorously and showed a greater disposition to form runners. Fruit medium size conical, crimson, firm, fair quality; sometimes it has a hard core. The following year and since that time it has been a productive variety, but not an ideal market berry, being rather small and not very attractive.



Bubach.

BUBACH, P.—This is essentially an amateur variety. The berry is large, moderately firm, is handsome and of fair quality. The blossoms usually have a number of stamens. The plant does not make runners freely. It succeeds well in the "Hill" system.

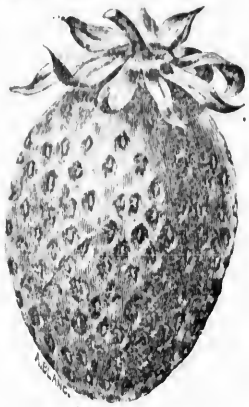
CRAWFORD.—Has been highly spoken of, but here it has been soft in texture and unproductive, though excellent in quality.

GANDY, B.—Blossoms and fruits late, but like most of this class is unproductive.

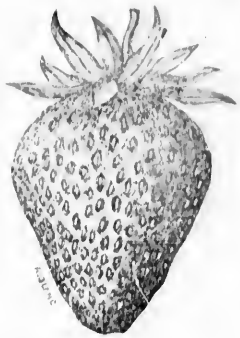
MARTHA, P.—A fair to strong grower, berries medium, conical, dark crimson, moderately firm, fair quality, season medium to late. Fruit stalks are slender and drooping, necessitating careful mulching.

MIDDLEFIELD, P.—This is of the New Dominion type of berry. The foliage is healthy and it is a fair grower. Berry roundish conical, bright glossy red with prominent light coloured seeds, quality good, mid-season or late.

PARKER EARLE, B.—This is undoubtedly a valuable berry. The plant is vigorous, almost too much so, late, of good quality, and productive. It is liable to become very rusty late in the summer and should be sprayed with Bordeaux mixture.



Parker Earle.

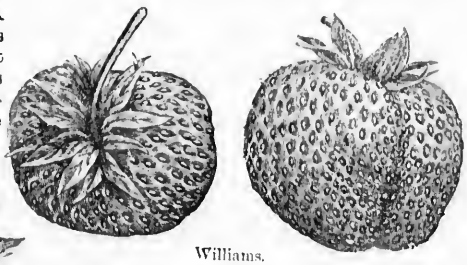


Warfield.

STAYMAN'S No. 1, P. Although reported as worthless by some stations, here it has done well as regards yield of fruit and health of plant. Berry medium sized, bright red, firm, quality fair to good.

VAN DEMAN, B.—This has been widely advertised as an extremely productive and valuable variety. It has not borne out its good reputation here, except as to productiveness. The berry is medium to small, very soft and of poor quality.

WARFIELD, P.—A vigorous grower and a healthy plant. Berry conical, dark crimson, medium size, acid and firm. A good point about this variety is that the last pickings are nearly as good as the first in regard to the size of the berries.



Williams.

WILLIAMS, B.—Foliage heavy dark coloured, a strong grower. Berries large, conical, dark red, sometimes irregular wedge shaped, firm, of fair quality. In certain localities growers complain that this variety has a hard core and a "white tip."

Woolverton.

WOOLVERTON, B.—This has the same type of foliage as Bubach and like that variety produces few runners. Berry large, firm, quality good. Fruit stalks short, necessitating careful mulching to prevent the berries from becoming "sanded." This variety was killed very generally in the Ottawa valley last winter.

Among varieties of more recent introduction, the following appear to be the best as tested here :—

Bissel, P.—Plant vigorous. Berry large, sharply conical, dark red, fairly firm ; quality not above medium. This should be carefully tested by commercial growers.

Buster, P.—Also a vigorous grower. Berry large, conical, light red, moderately firm, rather acid in character. Season, medium to late. Fruited 1896-97.

Belt (Wm.), B.—Plant vigorous and healthy. Picking season extends over a long period. Berry medium size, conical, bright crimson, firm, fair quality. Appears to be worthy of trial for commercial purposes.

Brandywine, B.—Only a fair grower. Berry large, roundish, dark crimson, firm, good quality. This is a distinct acquisition as to quality. Further trial is needed to determine its productiveness.

Charlie, P.—A strong grower, with healthy foliage. Fruit stalks long. Berry medium size, conical, bright scarlet, moderately firm, fair quality.

Clark's Early, B.—Fair grower ; good foliage. Berry large, oblate, dark red, glossy, firm, good quality. This at first gave every indication of productiveness, but failed late in the season.

Greenville, P.—A strong grower. Berry medium size, round, crimson, attractive ; good quality, but soft. It has not been productive.

Robinson, B.—Vigorous. Berry medium size, conical, dark red, moderately firm. Rather acid in quality ; produces an abundance of pollen.

Rio, B.—Foliage healthy. Berries large, light red, part from the calyx readily ; quality good. Home use.

Scarlet Ball, B.—A particularly strong grower, with long leaf and fruit stalks. Thus far it has not been affected by rust or mildew. Berry large, round, light red, firm, good quality, sometimes unevenly coloured. Apparently a worthy late variety.

Tennessee Prolific, B.—A strong healthy grower. Berry medium size, conical, bright glossy red, firm, fair quality. Of considerable merit for market purposes.

Thompson's Late, P.—A good grower. Berries, small, conical, firm, fair quality. This should be thoroughly tested in a commercial way, giving it rich soil and good cultivation.

Timbrell has been much advertised ; unfortunately the plants set out three years ago, owing to an accident, did not fruit the following season. Last year the crop was small in the aggregate although a few plants gave evidence of great productiveness. The berries ripen unevenly, and while firm-fleshed and of fine quality, are very unattractive in colour. It would seem to be worthy of a place in the amateur's garden, but does not commend itself to the commercial grower.

DISEASES.

*Leaf blight : rust. (*Sphaerella Fragariae.*, Sacc.)

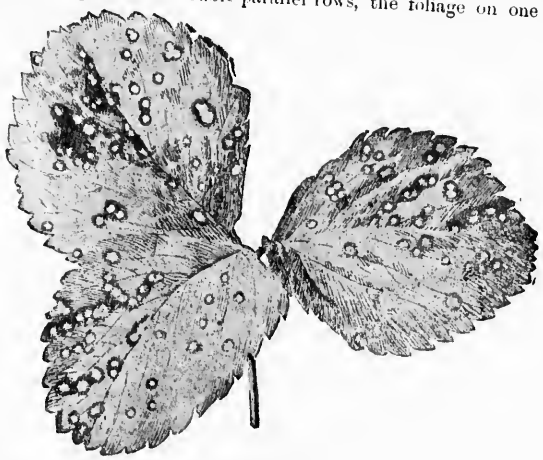
The round purplish or reddish-brown spots which appear on the leaves of strawberry plants during the growing season and in greatest abundance just after midsummer, are the evidence of the presence of the above injurious fungous disease. The spots, at first small and few in number, increase in size till the entire leaf is involved, and the foliage shows the effect of the parasite's presence by shrivelling and withering. This loss of foliage is a very serious matter, often coming early enough to materially lessen the crop, and taking place at a time when the plant should be making new runners for the next year. The fungus is carried over winter by means of spores and by means of mycelium (representing the vegetative portion of the parasite) contained within the leaves. Some varieties are affected much more than others. It has been generally noted that strawberries are affected to a greater extent on sandy soil than on clay loam.

*I am kindly allowed to use the two following cuts by Messrs. Macmillan & Co., of New York, publishers of the Spraying Book.

Bissel.

Belt (Wm.).

TREATMENT:—Bordeaux mixture prevents this disease, and on plantations where the single crop system is followed this is the most practical and effective remedy. When two crops are taken from the plantation, mowing and burning the leaves on the rows immediately after the season of berry picking closes, is the practice in some localities. In order to test the value of this practice, some experiments were tried in 1894. In a plot where the varieties were planted in double parallel rows, the foliage on one row was



Leaf Rust.

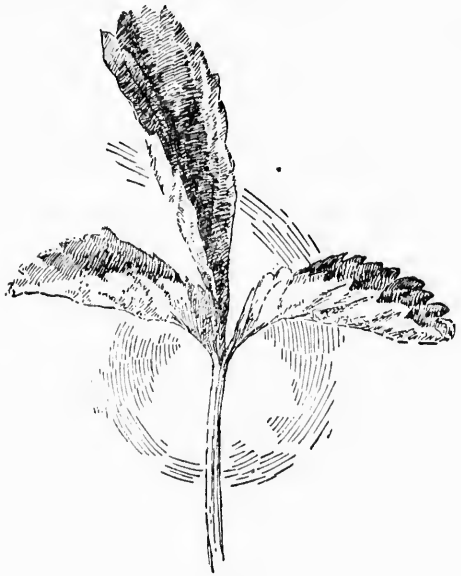
mowed and burnt, as is often recommended, without removing it from the plants. The other row was not touched. When there was an extra amount of litter lying on the rows the crowns of the plants were somewhat injured by the burning; this had the effect of thinning them more than was desirable. The succeeding growth of the plants in the burnt rows was at first luxuriant and healthy, but rust soon appeared and made rapid headway; these plants were, however, in a decidedly healthier condition at the close of the season than those in the adjoining rows, as may be seen by the following tabular statement:

Variety.	Leaf Rust on Foliage Burnt, Scale, 1-10.	Leaf Rust on Foliage not Burnt, Scale, 1-10.	Variety.	Leaf Rust on Foliage Burnt, Scale, 1-10.	Leaf Rust on Foliage not Burnt, Scale, 1-10.
Belmont	8	5	Middlefield	8	6
Black Giant	6	4	Martha	6	4
Boynton	9	7	New Dominion	6	4
Bedor Wood	6	4	Osceola	9	8
Beverly	8	4	Pearl	7	5
Barton's	6	4	Parker Earle	8	4
Bubach	7	5	Seneca Queen	7	6
Crescent	9	5	Sharpless	8	7
Captain Jack	7	6	Van Deman	7	5
Daniel Boone	4	4	Warfield No 2	7	6
Gandy	8	6	Windsor Chief	5	5
Haverland	6	5	Williams	5	4
John Little	8	6	Wilson	6	5
James Vick	4	3	Woolverton	7	5
Mrs. Cleveland	9	7			

10 represents maximum of health, 1, badly rusted.

Strange to say, there was hardly any appreciable difference in the health of the two rows at the fruiting time the next year.

An experiment carried on in 1895 with Bordeaux mixture to check this disease gave much more definite results. The plants were sprayed once before fruiting and twice afterwards during the month of August. The results were very satisfactory, the sprayed plants being practically unaffected by rust. The experiment was repeated in 1896, also with satisfactory results, and now that this fungicide is so commonly used against other diseases it will probably be found to be the best agent with which to combat this disease. It should be remembered, however, that in burning the leaves the spores of the fungus as well as many injurious insects are destroyed, and if this treatment is followed by the use of Bordeaux mixture in the spring, there should be no difficulty in controlling leaf rust.



Mildew.

MILDEW (*Sphaerotheca Castagnei.* Lev.)

In dry seasons this fungus which causes the leaves to curl, covering them with a thin cobweb like coating, lessens the crop very materially. Like gooseberry and grape mildew the fruit is also attacked.

REMEDIES.

If Bordeaux mixture is used in early spring as a rust preventive, this disease will also be checked. If it appears to an injurious extent when the berries are ripening flowers of sulphur may be used advantageously. When this is scattered between the plants, the fumes given off under the action of the sun's rays, have a preventive action upon the growth of the fungus.