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**COOPERATIVE EXTENSION WORK  
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**Methods of Growing  
Strawberries, Dewberries  
and Blackberries**

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**A Successful Fruit Club Member**

## Methods of Growing Strawberries, Dewberries, Blackberries

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### STRAWBERRIES

The strawberry is one of the most luscious of the small fruits but still comparatively few homes raise their own supply. An average sized family could consume fresh, canned or preserved, all combined, at least thirty to forty dollars worth of strawberries per season. There is not one family in fifty that consumes that many and the reason is because they do not have a good home strawberry patch.

With some labor, a small expenditure and a little ground nearly every family could have their own strawberry patch.

### Soil

A main essential in selecting a strawberry soil is to choose one that is fairly fertile and one capable of retaining moisture. Avoid a too loose, sandy soil or it will be very difficult to maintain a stand of plants during the summer. A soil that has been used for growing clean, cultivated row crops is preferable as less trouble will be encountered with weeds and grub worms.

Prepare the soil thoroughly and after it is broken and harrowed, harrow or rake the soil once or twice after you think it is ready to set. It is very important to have your strawberry patch well prepared before setting the plants.

### Varieties

There are two classes of varieties of strawberries, namely: standard and ever-bearing. The average grower should select the standard varieties.

There are perfect (staminate) and imperfect (pistillate) among the standard varieties. Avoid the planting of imperfect varieties by themselves. In such plantings set every third or fourth row to a perfect variety. The nursery catalogue usually indicates perfect and imperfect varieties.

The leading varieties for Oklahoma are Klondike and Aroma. The St. Louis is an early variety which gives good returns but is a tender fruit and not adaptable to shipping. The Missionary is a promising variety but not grown very extensively so far in this state at present.

### Setting Plants

The best time to set strawberry plants in Oklahoma is early spring, the last of February or in March. The strawberry is a comparatively shallow rooted plant and early setting will enable the plants to establish a better root system and make a more satisfactory growth before the unfavorable hot weather begins. Plants set in the spring should produce a good crop the following season.

Plants may be set in September to November when there are early fall rains but the small amount of fruit produced the following spring will tend to check the growth of the plants. Some people have the idea that August is a good time to set strawberry plants. This is a mistake. Should the plants be dry when received, stand the roots in water over night. Where moist when received, and if to be planted in a day or so, keep them moist by wrapping in a damp sack or something of the kind.

If necessary to delay the setting of the plants for several days, open the bundles and spread out the plants and dig a trench and heel in the plants, that is, place the roots in the trench and firm the soil around them which will prevent the plants from drying out or heating. A light shade may be necessary during the warm sunny part of the day for the first few days. Keep the roots moist by watering if necessary.

Lay off the rows three and one-half feet apart and set the plants 18 to 24 inches apart in the row. Plants may be set with the hand, planting trowel or spade. In any instance make the opening large and deep enough to receive the roots in a well spread and straightened out condition. Set the plants so the crown will be even with the surface of the soil after the soil is well firmed about the roots. Exercise care not to set the plants too deeply as the terminal bud may be covered and the plant eventually die.

### **Cultivation**

During dry seasons it is difficult to maintain a stand of strawberries. The means available in most cases for overcoming this difficulty is frequent and thorough cultivation. During the first season after strawberries are set a soil mulch should be maintained throughout the entire season until cool weather begins. This means a cultivation after each rain and at least every ten days or two weeks even without rain. Some hoeing may be necessary early in the season in order to cut out grass and weeds between the plants, also to break the soil crust around the plants in the direction of the row before the runners occupy the space. In the spring the plants will begin to send out runners which should be trained up and down the row in order to establish the "matted row" system which is best adapted to this state. A single cultivation omitted, especially after a rain, may mean a very great loss of moisture and a serious injury to the plants.

### **Mulching**

The mulching of the strawberry patch is an important operation in the successful growing of strawberries. The principal advantages of mulching in the south are: keeps the berries clean during harvest, conserves moisture, keeps down grass and weeds, enables pickers to work to better advantage, adds humus and protects the plants from cold and retards growth in the spring which may lessen frost injury.

Apply the mulch before cold weather. Old straw or waste hay may be

used as a mulch material. New wheat straw frequently is very bad on account of seed that may be present which may come up and grow. The mulch should be two to three inches deep. In the spring if too thick, the mulching material may be worked down among the plants to a certain extent so the plants will come up through it.

### **Renewing the Strawberry Patch**

There are two methods of renewing the strawberry patch where the matted row system is used. The preferable method is to bar off the row immediately after the close of the harvest season. Bar off one side so as to include the old plants, originally set, in the middle of the row and bar off the other side merely in order to establish the other side, leaving a mat of plants about four to six inches wide. Do any hoeing that is necessary before dirting (throwing the dirt back to the plants). The hoeing should follow immediately the barring off process in order not to expose the ridge of plants any longer than necessary. After the dirt is thrown back to the plants continue surface cultivation the remainder of the season.

The second method of renewing, which is not so satisfactory, consists of barring off each side of the row, leaving the original center plantings and depending upon hoeing to remove grass and weeds as well as the old original plants.

Whatever method is used it is desirable to remove the old original plants set, or in subsequent years to remove all plants more than one year old.

### **DEWBERRIES**

The dewberry, so far as the plant and fruit are concerned, is very similar to the blackberry. The plant produces longer, more slender and reclining canes rather than upright ones.

The blossoms are not so numerous in the cluster as in case of the blackberry, and again, the central blossom opens first in the dewberry cluster while the outer blossom opens first in the blackberry.

The fruit in case of the dewberry ripens before the fruit of the true blackberry and the seeds are usually more prominent.

The dewberry has a wider range of adaptability in Oklahoma on account of its low trailing habit, greater resistance to wind injury, ability to grow in poorer soil and its low habit shades the ground and thus conserves the moisture better than the blackberry.

#### **Soil**

The dewberry will respond to a good soil the same as the blackberry although it will give better returns on a poor soil than the blackberry. A good loam soil, rich in organic matter with an open porous subsoil in which the plants can develop a deep root system, is essential. Better results are secured where a soil is selected in which cultivated crops have been grown for two or three years previous. Prepare the soil deeply and thoroughly before setting the plants. The remarks concerning manuring the blackberry are equally applicable to the dewberry.

### Setting Plants

Dewberry plants can be set in the fall or the spring the same as the blackberry. Open up furrows eight feet apart and set the plants four feet apart. Spread the roots well, fill in soil around the roots and firm it. After the plants are set they should stand the same depth as they stood in the nursery or a little deeper.

Exercise care to keep the roots of the plants moist from the time they are received until set. The plants may be heeled in when received if not ready to set. The plants may be carried to the field in wet sacks or tubs of water.

### Cultivation

See the remarks on cultivation under the blackberry which are applicable to the dewberry. A cultivated row crop may be grown in between the dewberry rows the first year.

### Pruning and Training

In this state very little attention is paid to the pruning and training of the dewberry. In the larger plantings usually at the close of harvest season the entire patch is run over with a mowing machine. The canes are raked and burned. This is a means by which insects and diseases may be destroyed in addition to pruning the vines. By a thorough system of cultivation between the rows the new canes are prevented from rooting at their tips where they touch the ground between the rows. Naturally they will root along the direction of the row. In this way a pretty dense mass of vines is formed along the row. In the spring before harvest the plants may be gone over with a hand sickle and the new canes cut back which will make picking easier.

Mulching next to the vines during the winter or spring will protect the pickers as well as berries from the soil as well as conserve moisture and keep down grass and weeds.

### Varieties

There is one variety of dewberry up to the present that stands out superior to others for this state from a home standpoint, namely: Austin or Mayes.

Austin (Austin Mayes), a variety which originated in Texas, is productive and very early but the berries are soft and not well adapted for shipping. The berries are large, rather short, good quality and ripen a week earlier than Lucretia, its present competitor.

Lucretia.—As a whole, this is the most extensively grown dewberry. Plants are vigorous and productive. Berries large, longer than Austin, firm, better shipper than Mayes and later ripening, not as good a variety for home use.

## BLACKBERRIES

The blackberry is pretty well adapted to all portions of Oklahoma. In the eastern part of the state and under more favorable conditions in the cen-

tral and western part the blackberry does well. There are very few places where with good care plenty of blackberries for home use cannot be raised. Under favorable conditions and good care the commercial growers are making a success.

The last available agricultural census list shows Oklahoma as one of the fourteen states growing over 1500 acres of blackberries. Wild blackberries grow in many localities. Cultivated varieties properly cared for produce fruit far superior to that gathered from the wild plants as a rule.

### Soil

Select a soil of at least average fertility in which cultivated crops have been grown, and one containing plenty of humus. Humus will not only add fertility to the soil but will assist it in catching and retaining moisture. It is very important that an abundant supply of moisture be present especially during ripening season. Often berries dry up on the plant at ripening time on account of scarcity of water. At this time new shoots, which are to bear next year's crops, are being produced. Avoid a soil where the water stands during the winter. Where the soil selected has an open porous subsoil the plants will form deeper root systems, which will better enable them to stand dry weather.

Where the soil selected is not rich, make a liberal application of barnyard manure. In case of well rotted manure it may be worked into the soil previous to setting the plants. If the manure is scarce apply it in the drills or hills in which the plants are to be set. In case of fresh manure apply it as a mulch after the plants are set and gradually work it into the soil in cultivating the plants. Prepare the soil deeply and thoroughly.

### Plants

Blackberry plants are propagated in three ways: root cuttings, suckers and layers. Root cuttings are made in the late fall or winter by taking strong roots, at least as large as a lead pencil, and cutting them into three-inch lengths. These pieces are placed in alternate layers of moist sand in a box and stored away in a cellar or buried in a well drained sandy place until spring. The cuttings are taken out and planted in a nursery row in the spring. Place the pieces far enough apart in the row so they can be hoed in between. Keep up cultivation during the summer and the plants will be ready to set in their permanent place in the fall or spring.

Suckers are the small new plants that come up along the blackberry row and in between the rows. Where they are not destroyed by cultivation during the summer suckers may be used for new plantings the same as plants raised from root cuttings.

Layers is another means of propagating blackberry plants. The new canes can be bent over and the tips covered with soil the latter part of the summer and they will root and give rise to new plants.

In selecting plants secure good strong one-year old plants with which to begin your planting.

### Setting Plants

Blackberry plants may be set in the fall (November or December) or spring (February or March) under average conditions, fall being preferable. A very common mistake is to lay off the rows too close together and in the

course of a few years the suckers have grown up in the middles on account of lack of cultivation. Thus the blackberry patch has become a brier patch.

Lay off the rows eight feet apart and set the plants three feet apart in the row. Do not expose the plants to the sun or wind. They may be taken to the field in wet sacks. Set the plants the depth they stood originally or a little deeper. Spread the roots out naturally and firm the soil well about the roots. Where the plants are set in the fall the tops are left on, but the tops should be cut back in the spring. The amount to cut back depends upon the strength of the cane. In no case leave more than six inches of the original cane.

#### **Cultivation**

It is important to do everything possible to encourage a vigorous and healthy growth of the plants, especially the first few years in order to develop a good root system. From the time spring opens up a soil mulch should be maintained in the berry patch until fall. This cultivation will keep the soil loose, conserve the moisture, keep down grass and weeds, enable the water to better enter the soil and keep down, in the older plantings, the suckers which tend to prevent cultivation. Do not stop cultivating the blackberry patch after a single rain during the growing season. A cultivated crop may be grown in between the rows the first year.

#### **Mulching**

Where plenty of waste hay or straw is available a three-inch mulch may be substituted for cultivation. The greatest danger of straw mulch is fire.

#### **Pruning**

Other than cutting back the plants in the spring after setting no further pruning will be necessary the first year. However, systematic pruning will begin the second year. The blackberry bears its fruit on the current year's wood, therefore prune to stimulate the growth of new wood and thus increase the fruiting area. In the late spring and summer when the new shoots (new wood) arising from the crown of the plant reaches a height of two feet to thirty inches pinch off the terminal or end bud. This will cause the shoot to branch. It will be necessary to go over the patch several times during the summer in order to pinch off the terminal buds as the different shoots reach the proper height. Where the tops of the shoots are not pinched off as suggested the plants grow tall, branch out little, will not support its fruit so well and is more apt to be injured by the wind.

The canes which bear the fruit any one season die at the close of harvest. The time to remove these old canes depends on the location or exposure of the planting. Ordinarily the recommendations are to remove the old canes at the end of harvest, but practice in this state has demonstrated that in exposed windy localities the old canes protect the young tender shoots from injury by the wind. In cases other than this remove the old canes at the close of harvest.

In the spring remove the old dead canes where they have been left, also cut back the tips of the branches about one-fourth to one-third, especially cut back beyond any parts injured by winter freezes.

All prunings should be collected and burned.

#### **Orange Rust**

Orange rust is a disease which affects blackberry plants and is very destructive. It is easily detected and most noticeable on the under surface of the leaves. The under surface of a leaf where so affected has a velvety feeling and an orange yellow color. The disease will spread from plant to

plant and soon destroy an entire patch. When a diseased plant is detected, dig it up and burn it immediately, exercising care not to bring it in contact with the other plants. Since the disease can be spread easily by cultivation, do not cultivate the berry patch in the early morning while the dew is on. Keep close watch for the Orange Rust and if found dig out and burn the affected plants without delay.

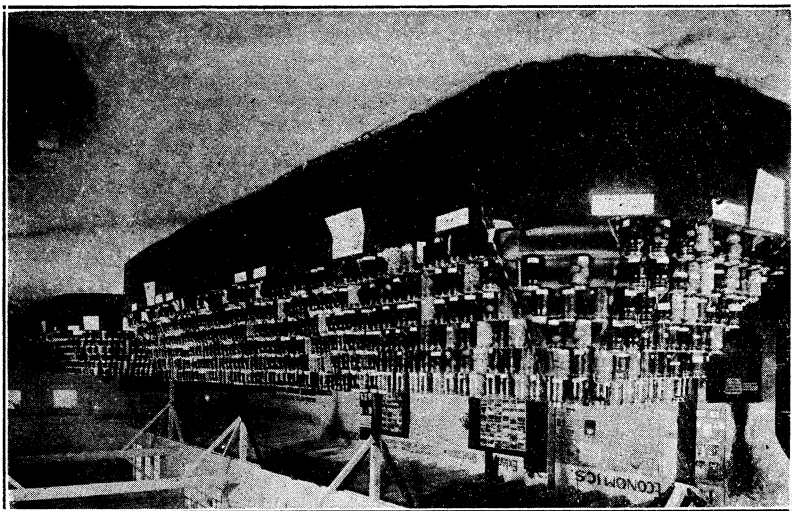
### Varieties

Only the early varieties of blackberries are adapted to Oklahoma taken as a whole. Some of the mid-season varieties give good returns during favorable seasons in the eastern part of the state. The early varieties, however, are the only ones to depend upon.

**Early Harvest.**—Berries medium size, sometimes large and again small, and fair quality. Season, very early and has a comparatively long ripening period. Fairly productive. Bush moderately vigorous but very subject to orange rust. The most extensively grown blackberry in Oklahoma at present, but is being displaced by McDonald and Dallas. This variety is a perfect pollinizer and does not require another variety to be grown with it.

**McDonald.**—This variety ripens before Early Harvest and is growing in popularity. The berries are large, firm and of good quality. Plant is vigorous and productive. Stands drought well. The canes trail similar to the dewberry, the first year or so, but eventually becomes upright. This is not a good pollinizer and should be placed with another variety, the Harvest being quite commonly used.

**Dallas.**—This is another early variety. Berries are large and of good quality. Bush, vigorous, reclining. Preferable to be grown with some other variety for pollinating.



Canning Club Exhibit at State Fair