

**FALL CARE OF STRAWBERRIES.**

Strawberries are better if covered lightly, say one inch, before the ground freezes, then later another inch, or just so you cannot see the plants or ground. This is particularly for new beds. For covering use nothing which contains foul seeds. Marsh hay is best unless on a very windy location; even then it can be weighted with dirt or brush. Clean straw is good. Bagasse, although heavy, makes a splendid mulch.

For old plantations there is not the same need of mulching or care to avoid weed seed, as the bed should be plowed under after the second crop. If there are any insect pests it is better to take only one crop and then plow under.

Manure mulch may be used for old beds and applied any time before March.

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**BLACKBERRY CROPS.**

No blackberry can be brought to perfection without abundant moisture. This can be secured by keeping the ground full of humus or vegetable matter and then begin cultivation early in the spring and keep it up after every rain. Careful experiments have proven that a loose earth mulch of three inches is best for conservation of moisture. The roots are prone to come near the surface to get the influence of the sun and oxygen of the air, and so if we adopt three inches as the proper depth, great care should be exercised to go no deeper, lest we tear the roots of the plant and deprive them of their feeders and cause them to send up many suckers, which become a nuisance.

The cultivation should continue regularly, at least once a week. When the ground is filled with water in the winter and spring we must not let it get away. Cultivation

does not add any water to the soil, but it prevents the supply from getting away. The water draws to the surface by capillary attraction and film movement, and cultivation, or making the loose earth mulch, destroys these capillary passages and checks the film movement so water cannot rise and must remain below until it is breathed away by the plants.

Now, when the berry pickers tramp through the rows they tread the earth down hard and thus the water rapidly flows to the surface, where it is promptly picked up by the sun and wind and carried off. At this season of the year a drouth usually prevails and the berries dry up, shrinking the number of quarts many times, to say nothing of loss of flavor of fruit, reducing its consumption and price alike.

All this will be prevented largely by having the horse and cultivator ready immediately after the pickers every time the fruit is gathered. Then the last picking will be as large and luscious as the first.

“Winter killing” are not the words to use! We should say “summer killing,” for while the actual killing is done in winter, the cause is effected in summer and is the result of bad cultivation. While we are conserving moisture, as explained, to prevent the berries from drying up, we are preparing them for winter. Everything we can possibly do to force a vigorous growth in the early part of the season should be done and anything which can prevent growth after the first of August should also be done.

If the ground be not cultivated frequently, early, and is packed down by the pickers the growth is suspended in mid-summer, the buds form as if for winter and wood ripens. Later the fall rains come and a new growth starts and this does not have time to ripen and so even slight freezing destroys both wood and bud, whereas, if the wood had been properly ripened it would withstand a very low temperature—lower than we often have.

**HOW TO PREVENT FALL GROWTH:**—How are we to prevent the fall growth! Having maintained the steady growth until the wood and bud ripening process should begin (about August 1), we sow and cultivate in about four bushels of oats per acre. These promptly germinate and appropriate the plant food and moisture, cutting short the supply of the bushes and their growth will be materially checked and, as the ground is kept cool by the shade, the late growth is quite sure to be avoided, but the value of the oats is not ended here by any means.

They remain green until quite heavy freezing, and then stay as a mulch, protecting the roots from evil effects of freezing and thawing, preventing soil washing during the winter. In the spring they are decayed so as to be easily cultivated into the soil, adding very largely to the surface humus, which separates the soil grains so capillary action is sluggish and a crust will not form so readily and thus the frequency of cultivation be greatly reduced. It is especially important that the suckers which come up shall be treated as weeds and that the bushes be confined to the original plant, so that the entire surface soil shall be stirred by the cultivator. This narrow row not only aids in conserving moisture, but it facilitates picking the fruit, as it is on the outside largely. It is difficult to induce the boys and girls to thrust their arms to the center of a wide, thorny blackberry row, and so much of the fruit is lost.

Overbearing and pollen exhaustion are also among the factors which soon destroy the life of the blackberry. Judicious pruning is the remedy. Let the bushes bear all they can bring to perfection, but not more. They never fail to set several times as much fruit as they can mature. A patch treated as indicated will carry through more buds than under less intensive culture, and so need not be pruned quite so close, but it is always better to overdo pruning than to leave too many buds.

R. M. KELLOGG, in *Western Fruit Grower*.