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PLAN FOR PRODUCING HIGH-GRADE STRAWBERRY PLANTING STOCK

by

O. T. McWhorter, Extension Horticulturist
S. M. Zeller, Plant Pathologist

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November 2, 1937

Virous Diseases Decrease Strawberry Yields

Crinkle, a serious yield-decreasing virous disease of the strawberry, is especially destructive to the Marshall variety, which constitutes 75 to 85 per cent of the 12 thousand or more acres of strawberries produced annually in Oregon.

This virous disease reduces the high tonnage per acre and fruit quality, necessary for growers to secure, if cost of production is to be kept low enough to meet the competition from other strawberry producing sections of the United States. Only by maintaining high production of fruit per acre, low production costs, and high quality, can Oregon expect to continue to sell to out-of-state markets in large volume.

Improved Planting-Stock Supply Short

Certified or disease-free Marshall strawberry planting stock is not now available in Oregon in sufficient quantities to supply needs. There is, in addition, a demand from out-of-state points for certified or disease-free strawberry planting stock.

Improved Strawberry Plants Praised

An unsolicited statement from an out-of-state purchaser of Oregon certified strawberry plants is typical of testimonials received. The letter dated May 21, 1937, is as follows:

"We believe you would like to have a report on the strawberry plants purchased from you last year.

"The plants are doing fine and the patch is excellent in appearance. The productiveness of the plants is unexcelled.

"We have had many fine compliments on this patch. Some of the plants have attained a growth of more than one foot in height, and bearing very profusely. The berries are usually quite large and when placed in the crate present a very enticing appearance.

"It has been reported to us from buyers and others who have viewed other patches, that this particular field is the best they have seen. It is truly a field to be proud of."

Virous-Disease Control Requires Continuous Effort

Selected or certified Marshall planting stock free from disease does not always remain so after it is planted in the field because of agencies which spread the degenerating crinkle disease. The grower must wage a continuous fight to keep out the disease. A high degree of control can be accomplished by constant vigilance in selecting and roguing of the ever-recurring crinkle plants in a strawberry nursery plot.

In view of the inadequate supply of certified or disease-free stock, the following plan is suggested as a means through which growers can produce vigorous strawberry planting stock to supply plants for their extensive plantings and for outside markets.

This plan will involve the growing of strawberry plants in a separate (isolated if possible) plot where they can be closely watched and affected plants removed.

Planting-stock grown under this plan will furnish high-grade planting stock for the grower's main fields. Whenever such plants meet certification requirements, they can be certified if it is the will of the grower, but certification will not be required for participation in this strawberry planting-stock-improvement plan.

Plan for Strawberry-Plant Nursery

(1) Select a plot of land isolated from the main strawberry fields or wild strawberries. If isolation is impossible, 300 feet or more should separate the plot from other strawberries.

(2) The site selected should be well drained, deep, fertile soil that will hold moisture during the dry season. Growing conditions should be the best. Avoid land which has been in potatoes within three years. Potatoes may leave Rhizoctonia disease which will attack strawberry plants.

(3) The site should have ample air drainage. Select, if possible, locations which are in the open.

(4) Plant only vigorous, healthy, certified strawberry plants if possible. Carefully selected plants from the best hills that the grower has at hand can be used when certified stock is not available.

(5) Control Insect Pests

(a) Spittle Bug: One or more dustings of one-half of one per cent rotenone, or other dusts are required to control spittle bug. Do not omit this control.

(b) Apply baits for strawberry root weevil.

(6) Systematic examination of the nursery every two weeks should be made. All weak, off-colored, or inferior looking plants should be immediately removed from the field. During some seasons the number of plants which must be removed will be large. This method of roguing strawberry nursery plots for disease control has been effective in the hands of practical growers.

(7) The strawberry nursery may be maintained and the plants produced used for a period of two years, after which time a new nursery should in most cases be established.

(8) Plants should be set on the hill system in the nursery, preferably two and one-half or three feet apart in the row. This will permit easy removal of inferior plants together with their runner plants.

The Extension Service of the Oregon State College will assist growers who wish to establish such strawberry nurseries. This assistance is available through your county agent office.

"Crinkle" disease of the strawberry is described in detail in Oregon Experiment Station Bulletin 319.

Rules for strawberry certification will be found in Oregon State College Extension Bulletin 481.

Both are obtainable from the county agent offices.
