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STRAWBERRY ROOT-WEEVIL CONTROL IN OREGON

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There are two groups of root-weevils which are commonly found doing serious injury to strawberries in Oregon, the Brachyrhinus group and the Dyslobus group. The Brachyrhinus weevils, which are supposedly introduced, attack a large number of other cultivated plants in addition to strawberries, especially ornamental and nursery plants. The Dyslobus weevils are native and have changed their food habits from native vegetation to strawberries in certain areas of the state.

The Brachyrhinus group contains the strawberry root-weevil, the black vine weevil, and the rough strawberry root-weevil. In this circular they will hereafter be called the common strawberry root-weevils. They are sometimes called the black strawberry weevils.

The Dyslobus group contains the decorated strawberry root-weevil, the western strawberry root-weevil and the Lcomb strawberry root-weevil. These will hereafter be referred to in this circular as the native strawberry root-weevils. They are often referred to as the brown weevils.

Life History and Differentiation by Color

The common strawberry root-weevils, in the Willamette Valley, pass the winter mainly in the grub stage. In the higher elevations the adults commonly overwinter in the adult stage. The development of the grubs seems to depend on the severity of the winters. In mild winters and springs the adults begin to appear early in April and continue until berry harvest, while under more severe winter conditions the grubs seem to develop more or less as a whole and emerge over a comparatively short time during late May and early June.

The native strawberry root-weevils pass the winter in the adult stage in the ground and generally emerge in March. They lay eggs in April and May and the grubs feed on the roots until late summer when they change to the adult stage.

The common strawberry root-weevils may be differentiated from the native group by color. The former are either brown or black without scales on the body while the latter group is a grayish brown and is covered with scales.

Control

Control of these weevils is effected by a poison bait. There are a number of commercial baits which may be used or the baits may be mixed at home. The commercial baits, as a rule, contain dried apple waste for the carrier of the poisons which are either calcium arsenate or sodium fluosilicate.

An effective homemade bait may be prepared by the following formula:

Bran	- - - - -	50#
Water	- - - - -	5 gals.
Sugar	- - - - -	10#
Calcium arsenate or sodium fluosilicate	- - - - -	5#

To mix this bran bait dissolve the sugar in water and thoroughly mix with the bran. Then add the powdered poison and stir thoroughly into the moistened bran.

Method of Application

The bait is applied at the rate of about one teaspoonful in the center of the (crown) of each plant. One-hundred pounds of the bait will treat from one to three acres, depending on how close the plants are set.

Time and Number of Applications

Baits for the common strawberry root-weevils should be applied as soon as the weevils are in evidence. To determine this, it will be necessary to examine the plants from time to time by scratching away the loose soil around the base of the plants. (Weevils generally feed only at night and hide in the soil near their host during the daytime). The number of applications of bait will depend on how soon the weevils appear in the spring and on the occurrence of rains. Baits should be repeated after heavy rains and when live weevils can be found. One weevil is capable of laying a number of eggs so the number of applications will depend on the value of the crop to be protected.

Baits for the native strawberry root-weevils should generally be applied about April 1, although timing of baits can be judged in much the same manner as for the common strawberry root-weevils.