

EXPERIMENTS ON CONTROL OF JUNE BEETLES (SERICA FIMBRIATA) ON AVOCADO TREES

Tests Made at Rancho Leucadia, Encinitas, by W. H. Rippey, at Suggestion of J. Eliot Coit, May 1925

Test No. 1—Calcium cyanide. Dirt scraped back from four trees, making a basin three inches deep as wide as the overhanging branches. Calcium cyanide sprinkled over the surface with a perforated shaker; one tablespoonful to the tree; dirt pulled back covering cyanide about three inches deep. Result in 48 hours:

Tree No. 1, eight bugs; all dead.

Tree No. 2, thirteen bugs; one alive.

Tree No. 3, twenty-nine bugs; two alive.

Tree No. 4, nineteen bugs; all dead.

Sifted all dirt under each tree, to depth of four inches, through window screen.

Test No. 2—Fluosilicate. Thoroughly dusted six trees with one part fluosilicate nine parts lime

(as per formula furnished by R. R. McLean, Horticultural Commissioner, San Diego Country.)

Examined trees 48 hours later.

Result:

Tree No. 1, six live bugs; none dead.

Tree No. 2, one live bug; none dead.

Tree No. 3, seven live bugs; none dead.

Tree No. 4, eleven live bugs; none dead.

Put fifty live bugs in screened box 24"x36"; three inches damp earth in bottom. Dusted large spray of avocado branch with fulosilicate and placed in box.

Result after 120 hours—Found leaves one half consumed and fifty live bugs.

Put fifty live bugs in another box .24"x36", screened and containing three inches damp earth. Dusted the bugs until they were thoroughly covered with fulosilicate.

Result after five days—Found forty-eight live bugs and two dead ones. Put fifty bugs in

box 24"x26" containing three inches of damp earth, impregnated with 1-6 teaspoonful calcium cyanide.

Result 36 hours later—Found fifty dead bugs.

Sprayed orchard beginning April 26th. After nine days found no further damage to trees from Sérica bugs on sprayed trees. Formula for sprays—

6 lbs. dry arsenate of lead

6 lbs. hydrated lime

100 gals, water.

Calcium Cyanide tests on trees 5-12-25. Applied Calcium Cyanide same as in tests for Sérica Beetles. Irrigated ground thoroughly under same two trees, immediately after applying Cyanide. After twelve days' observation can detect no damage. Also put fifty sérica beetles in box containing three inches of earth which had been dosed with Cyanide (calcium) five days previous. In 48 hours found six live beetles and forty-four dead. Left the six live beetles in box three days more and found five alive.

Arsenate of lead spray on trees seventeen days. No noticeable damage from Serica Beetles yet.