SCIENCE NOTE

Note on Seed Production from Onion Bulbs Dipped in Insecticides at Planting

As the feeling that onion-seed crops were being damaged by maggots had persisted among growers in British Columbia, in 1953 tests were conducted to determine whether treatment of bulbs with insecticides immediately before planting affected: (*a*) The growth of the onion plants; (*b*) the amount of damage inflicted by the maggots, *Hylemya antiqua* (Mg.) and *Paragopsis strigatus* (Fall.); and (*c*) the subsequent yield and germination of the seed. The two species of flies were the most abundant of those collected over caged onion plants in the seed-fields at Grand Forks in 1950.

A farm at Kelowna where seed of the variety Yellow Globe Danvers No. 55 had been grown for many years was selected as the site for the tests. The experiment was conducted in randomized blocks with ten treatments, each replicated four times. Each plot consisted of one row 25 feet long; there were 36 inches between rows.

Treatments were 5 per cent slurries and 0.1 per cent emulsions of aldrin, DDT, dieldrin, and lindane. Bulbs were dipped in the slurries for five minutes and in the emulsions for thirty minutes. Slurries were prepared from wettable powders and emulsions from emulsifiable concentrates.

Two series of untreated plots were included; the bulbs for one were dipped in water for five minutes, for the other thirty minutes. These correspond to the periods of immersion for the slurry and emulsion treatments and compensate for any differences that might arise from the added moisture of the dip treatment. Eighty-five bulbs were planted in each plot. Counts were made of onion leaves two weeks after initial growth was observed. Periodic examinations were made throughout the season for phytotoxic symptoms and maggot damage.

All the seed-balls were harvested from each plot, stored in sacks until dry, threshed, blown, screened, and then weighed for seed yield. Four samples of 100 seeds each were taken from each treatment, placed on two thicknesses of filter paper in a closed petri dish, and allowed to germinate in a constant temperature cabinet at 78° F. Counts were made from the second to fourteenth day. Water was added when needed.

Analysis of variance showed no significant difference in growth, seed yield, or germination of onion seed produced. The average number of plants per treatment produced from the eighty-five bulbs per plot ranged from 79.7 to 84.2; the average seed yield ranged from 728.0 to 934.8 gm.; and the average percentage germination of the seed produced ranged from 95.7 to 98.0 per cent. No maggot injury was recorded in the experiment, although up to 35 per cent damage was recorded in near-by fields of onions grown from seed.

It must be assumed that the chemical treatment of the onion bulbs before planting had little or no effect on growth of the plants, or yield or germination of the seed.—*D. G. Finlayson, Field Crop Insect Section, Entomology Laboratory, Canada Department of Agriculture, Kamloops, B.C.*

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HISTORICAL NOTE

While sorting the late Dr. E. C. Van Dyke's correspondence, I came upon a letter from Dr. H. A. Scullen of the Oregon Agricultural College at Corvallis, dated February 7, 1928. The following quotation may be of interest for the Entomological Society of British Columbia historical file:—

"Recently I was talking to Professor Livingston of our Department of Geology and found that his father was one of the early collectors in the region of Vancouver Island. His name was Clermont Livingston. Professor Livingston tells me that his father's collection consisted principally of Lepidoptera and Coleoptera collected since 1891 and is deposited with the Government House Museum at Victoria, B.C."—*Hugh B. Leech.*