

are to be killed. On larger corn, after the worms have migrated into the buds, most of the spray should be directed into the whorl. A power sprayer is needed for best control. It is difficult to obtain maximum control with a knapsack sprayer, requiring very careful and thorough operation. The use of a power sprayer with three nozzles per row operating at about 300 pounds pressure and delivering 75 to 125 gallons of spray per acre (depending upon the size of the plants) will give good control of budworms. Results obtained with dusts indicate that they are inferior to baits and sprays against budworms. Ground-powered dusters are fairly effective and may be used if spraying is not possible. The dust also should be directed into the buds.

As noted in Table 5, several insecticides have been found effective against budworms in corn. The grower should first make certain that he has equipment suitable for thorough treatment and then select the material which fits his particular need. Cost of the insecticide would certainly be one consideration. If crop remains are to be fed to livestock, methoxychlor should be used, since it is reported to be less toxic than DDT to warm-blooded animals. Those with small acreages which do not justify the purchase of power sprayers may elect to spray or dust young corn with hand equipment and use a poisoned bait after the worms have migrated into the buds.

Corn earworm control studies have provided the basis for evaluation of a number of insecticidal dust and atomized oil spray formulations applied to the silks. Data obtained from two of these experiments are reported.

A planting of Ioana sweet corn was made in the spring of 1947 to test methods for control of corn earworms. The dusts were applied with rotary hand dusters at the rate of approximately 35 pounds per acre for each application, and the oil-pyrethrum injection treatment was applied with a hand force oiler at the rate of $\frac{3}{4}$ cc. per ear. A light mineral oil containing 0.19 percent pyrethrins was used. The first silks were observed May 2 and the dust applications were made April 30, May 3, 7, 12 and 16. One treatment was made on the oil injection plots on May 12. Twenty-five ears of corn were obtained from each plot, giving a 125-ear sample from each treatment to determine insect damage. The fall armyworm, corn earworm and the corn-silk fly were present, and the amount of damage caused by each of these pests was recorded. These data are included in Table 6.