

THE ONLY MOVING PART IS THE OPERATOR

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A practical, reasonably precise, method for applying granular insecticides by hand is now one mosquito season old at Consolidated (California) MAD. The experience was rewarding in direct economies to the District and in the pleasure expressed by all personnel with the easy, clean way to treat a multitude of mosquito sources. Modifications and improvements of the applicator and better techniques for using it will make it possible to start the 1961 season with confidence in our ground larviciding program.

Two things combined to encourage this District to initiate a full scale use of granular insecticides by all field personnel. Limited testing of commercial supplies of the new granular formulation recommended by Dr. Mir Mulla, University of California, Citrus Experiment Station, Riverside, in late 1959 were so successful, a crash program to develop a suitable hand applicator was started in the District shop as the mosquitoes eased off. The work of Dr. Mulla and his co-workers has already been reported in *Mosquito News* and other publications. The gratifying result of our search for a suitable piece of equipment to apply the new granules by hand may be of interest to other mosquito control agencies.

Without going into detail on the many hours spent in constructing the excellent hand crank rotary applicator shown in Figure 1, this method of applying granules does have merit and will be explored further. Power units mounted on vehicles have been proven in the field and several commercial hand models are used for applying herbicides, fertilizers, seeds, insecticides, etc. Our switch away from the hand crank applicator was due to the curiosity of Mr. A. L. Paden, District Entomologist.

In screening the available commercial seeders, Mr. Paden found a very simple device that caught his interest. He gambled the District would pay \$1.75 for an experiment and bought one to try. As time permitted enough field testing he recommended setting aside all the other units and concentrating on the low priced HORN for the 1960 season. To the continuing benefit of the District and the gratitude of the field operators, he was able to support his recommendation with concrete evidence.

The original Cyclone HORN Seeder has been modified, remodified and then modified again. Parathion granules were being used by the District so our first modification was to have bags made from a material that would not soak up the toxicant and could be wiped clean as required. A zippered closure was included to protect the operator from spillage and fumes. This involved buying the seeder and having

another firm make the bags. The cost per unit was still quite reasonable but dealing with two suppliers was awkward. Correspondence with the HORN manufacturer has been productive and they are now offering their first model of the "Skeeter-Bator" (Figure 2.) The price is nominal and buying several each year would not cost as much as the average spray can. A deluxe model incorporating all the safety features for handling organic phosphorous granules is being encouraged.

The advantages of an insecticide granule with a controlled release of the toxicant are obvious. An applicator where "The Only Moving Part is the Operator," completes a nice combination.

Another item that has this District quite excited is a plastic hose. From preliminary trials the hose looks as if it will last forever under conditions of use here at Consolidated. Costs are about one-third more than the conventional hose but the anticipated longer life should more than offset the difference. NYLOBRADE is light and pliable, making it easy to work with under field conditions.

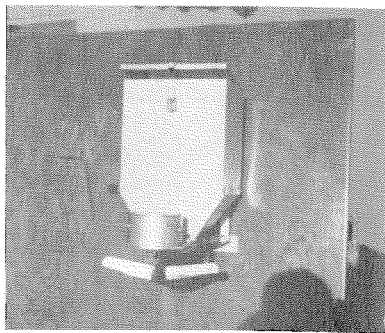


FIGURE 1.—Hand crank rotary applicator fabricated by Consolidated (California) MAD.



FIGURE 2.—"Skeeter-Bator" being demonstrated by A. L. Paden, Entomologist, Consolidated MAD.