

EXPERIMENTS WITH NEW EQUIPMENT FOR MOSQUITO CONTROL

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The control of mosquitoes is frequently retarded or rendered ineffective by inability to reach prolific breeding areas. At Edgewood Arsenal, Edgewood, Maryland, there are many vegetation choked bayheads so dense that larviciding by hand sprayers or conventional power sprayers is almost impossible. A recently developed turbine type sprayer and duster seemed to offer considerable possibilities because of its capacity and range, using both larvicidal and residual DDT. This piece of equipment weighing approximately 400 pounds empty was mounted on an Army amphibious vehicle usually called a "weasel," which permitted access into all parts of marshy bayheads except open water.

Two pictures are included showing the mounting on the weasel and the use of the turbine type sprayer-duster in a marsh with 10 per cent DDT dust. In addition a DDT-xylene emulsion was used at the rate of 0.16 pounds of technical DDT per

gallon of emulsion and a concentrated spray using 0.43 pounds of DDT dust per gallon, with linseed oil as a sticker. The machine handled these preparations without difficulty, permitting heavy larviciding and residual treatment over the marsh, with particular emphasis at the edges. The distance effectively reached from the sprayer depended on the wind. The emulsion gave a good deposit on glass 240 feet across a mild breeze of about 5 miles per hour. At this point there was a fall of varied insects under large trees. With a favorable wind the emulsion should easily reach 300 feet or more.

The DDT dust and linseed oil preparation was also tested with a fish-tail nozzle on ornamental shrubs and trees 20 feet or less in height. An excellent deposit was obtained indicating a probable use against leaf eating insects.

It was concluded that the turbine type sprayer-duster mounted on a weasel is another useful piece of equipment for mosquito control, not only in marsh, but in wooded, poorly drained areas where all weather equipment is needed.

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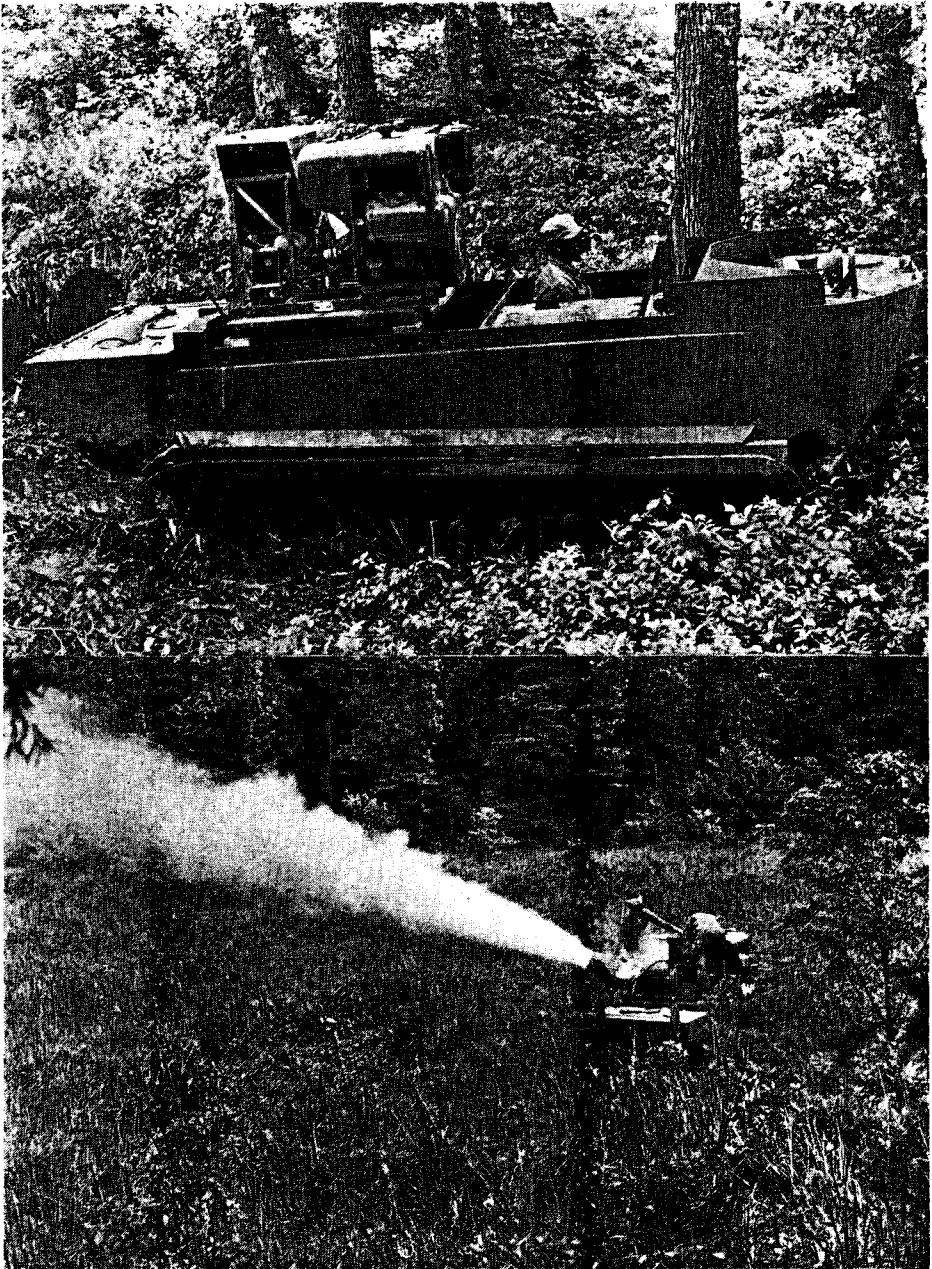


Fig. 1. Turbine type sprayer-duster mounted on a weasel.

Fig. 2. The unit shown in Fig. 1 applying 10% DDT dust in a marsh.