

## OPERATIONAL NOTES

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Mosquito control and entomology have been growing proportionately with other scientific groups. Today the "operational mosquito control group" not only has a complex list of insecticides from which to choose but also has a growing inventory of ingenious and complicated equipment. Many of those who are responsible for the application of insecticides and the operation of equipment have participated in and contributed to the advances made in these fields. Almost

every mosquito control organization has made improvements or changes that alter standard equipment. Although these changes are usually made for a given organization's specific needs, they may, if shared through the medium of these pages, help others to solve their problems also. As an example, Jim Heidt of Dade County, Florida has written us of a practical seal for air pressure sprayer tanks. We present his contribution below.

### A PRACTICAL POSITIVE SEAL FOR AIR PRESSURE SPRAYER TANKS

James H. Heidt

The Dade County Mosquito Control Division has a year round catch basin spraying program in which motorcycles are used. A side car mounted on the left side of the motorcycle is used to support a 30-gallon insecticide tank. The tank is equipped with a  $1\frac{1}{2}$ " opening for insecticide filling, a pressure gauge, a safety pressure relief valve, an air filler valve, an air release valve and a discharge opening to which is attached a suitable length of hose and spray control accessories.

After filling the tank with insecticide, the operator applies the initial pressure of 100 psi from the shop air compressor. During the course of spraying activities, the operator stops at any convenient service station when the pressure drops to 50 psi.

One of the problems encountered over the years with this type of spray equipment is to form and maintain the air-tight seal at the  $1\frac{1}{2}$ " opening used to fill the tank with insecticide. Various assortments of valves and screw type pipe fittings have been used. In the screw type fittings, the operator usually used a hammer to tighten or loosen the fittings and these had to be replaced several times a year.

None have worked as well as a quick coupler and dust plug. Other makes are available but the Kamlock OPW assemblies have proven satisfactory. The coupler female pipe thread No. 633-D or the coupler male pipe thread No. 633-B in

combination with the dust plug No. 634-A has given a positive seal for the filler opening.

The quick coupling assemblies are available in pipe thread sizes from  $\frac{3}{4}$ " to 4". The  $1\frac{1}{2}$ " size has been satisfactory for our operation. The fittings provide a perfectly tight fit with threads to engage or twisting action against the gasket. No tools or wrenches are necessary. The tight seal is made by inserting the dust plug into the coupler and then pressing the cam lever. Extra gaskets and cam arms are available at the source of supply.

The Kamlock quick coupling assemblies are also used when filling airplane insecticide tanks on twin engine Beechcraft airplanes used by the Mosquito Control Division for aerial spraying. The  $1\frac{1}{2}$ " coupler male pipe thread No. 633-A is attached to the service nozzle and can be quickly coupled to the adapter female pipe thread No. 633-A mounted on the fuselage of the airplane. A check valve mounted inside the airplane near this adapter prevents the oil base insecticide from discharging when the filling operation has been completed. By having this adapter coupled to the side of the fuselage, a man servicing the airplane insecticide tank is not required to climb upon the wings or into the airplane to fill the tanks. A 633-A adapter in combination with a fueling nozzle tube is kept on the tank for use when filling other tanks not on the airplane.

TO THOSE WHO WERE RESPONSIBLE FOR THE EQUIPMENT DEMONSTRATIONS AT THE GALVESTON MEETING, we would like to pass along the many compliments for the excellent field exhibit program. And to say that the equipment demonstration was equalled by the hospitality is intended as high praise for both of these phases of the meetings. The changes that had been made on various tools and machines furnished another good example of operational ingenuity and the discus-

sions devoted to operational activities were a most instructive and entertaining.

TED RALEY SENT US A VERY INTERESTING BOOKLET titled "Mosquitoes and Their Control." This booklet was developed by the Fresno County school system in cooperation with the Consolidated Mosquito Abatement District and other local agencies. It is interestingly designed and dramatic, and illustrates mosquito control problems. It is k

the level of the grade school student. It accents the health factors involved and is very instructive in what the average student and householder can do to prevent mosquito breeding. The

Fresno County agencies involved are to be complimented for this fine cooperative effort. It may be used, of course, with their consent, as a model for other mosquito abatement districts.

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