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TESTS WITH DDT AS AN ANOPHELINE LARVICIDE

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Preliminary work has been conducted upon the feasibility of substituting a DDT formula for fuel oil in larvicide operations. This was done by emulsifying small quantities of DDT concentrates in quantities of water so that the total application rate was the same as that of fuel oil.

Information was sought of the initial and residual larvicidal properties, gross effects on other aquatic population, and possibility of adaptation to present equipment without modification.

Surface films, emulsion and suspensions were effective larvicides at .1 pound DDT per acre. Surface films were most effective since lateral distribution was greater. Bottom applications did not perform as well as did the other three types of larvicides.

Observation indicated that the distribution of DDT and thus its toxic effect was limited to the distribution of the solvent. Treatment of a portion of a pond did not exercise control over the remainder.

No marked residual properties have been observed at concentrations of DDT up to 0.5 pounds per acre. In the laboratory the bottom mud complex from natural ponds or swamps renders DDT non-effective after two to three days. Indications are that living organisms are not responsible for making the DDT unavailable.

DDT in the concentrations and combinations, normally applied as a larvicide (i.e., .1 pound per acre), seemed to have little effect on the plankton organisms, and no damage to fish life was observed.