

TABLE II

LONG TERM IMMERSION STUDY OF FORMULATION A											
Pretest Immersion Time	LT ₁₀₀ (days) by Active Agent Concentrations (ppm)*										
	0.035	0.06	0.14	0.23	0.46	0.54	0.84	1.3	1.5	2.2	3.4
LT ₁₀₀ (days)											
30 days	6	5	5	2	2	2	3	2	3	2	2
70 days	11	9	6	4	4	3	3	3	3	3	2
110 days	10	13	7	8	8	3	3	5	4	3	2
160 days	11	9	11	4	—	6	6	3	1	2	1
225 days	14	9	5	4	4	4	5	7	3	2	1
310 days	—	—	—	—	—	—	5	3	6	3	3

*Values given are for the total agent content in the test specimen used and not for the amount present at any given time in water.

As readily apparent from Table II, it can be seen that 100 percent mortality was achieved in generally periods of from 1 to about 10 days with some very low concentrations requiring slightly longer periods of time.

The third table compares the several Temephos formulations for efficacy against first and second instar *Culex pipiens quinquefasciatus*.

TABLE III

LARVICIDAL EFFICACY OF SEVERAL CONTROLLED-RELEASE TEMEPHOS FORMULATIONS			
FORMULATION	LT ₁₀₀ (No Previous Immersion)		
	Conc. ¹ (ppm)	1.0	0.1
A		2 days	7 days
B		0.5 days	1.0 days
C		3 days	4 days
D		1 day	4 days
E		1 day	3 days
F		2 days	3 days
G		1 day	1 day
H		1 day	4 days
I		1 day	3 days
J		2 days	3 days

¹Active Agent

While in accordance with the patent statutes, the best mode and preferred embodiments have been described in detail, the invention is to be measured by the appended claims.

What is claimed is:

1. A floating pesticide dispenser, comprising:

a floating thermoplastic dispenser containing a pesticide and having a density less than 1.0 grams per cc,

said thermoplastic dispenser containing a thermoplastic copolymer selected from the group consisting of a copolymer of ethylene-vinyl acetate, a copolymer of ethylene-propylene, and combinations thereof, said ethylene-vinyl acetate copolymer having from about 60 to about 95 percent by weight of ethylene and a weight average molecular weight of from about 40,000 to about 400,000,

said ethylene-propylene copolymer having from about 30 percent to about 80 percent by weight of ethylene, and a weight average molecular weight of about 50,000 to about 250,000,

said dispenser containing a pesticide for use in an aqueous environment for destroying aquatic pests, said pesticide may be a compound having the formula R₃S_nX where R₃ is selected from the group consisting of an alkyl group having from 1 to 8 carbon atoms, an aryl group, and a substituted aryl group wherein said substituted group is an alkyl or an ester containing from 1 to 6 carbon atoms; X is selected from the group consisting of a halogen, an

oxide, an alkoxy OR¹ where R¹ is an alkyl having from 1 to 12-carbon atoms, or an



group where R'' is an alkyl having from 1 to 12 carbon atoms, the amount of said pesticide ranging from about 2 parts to about 80 parts by weight per 100 parts of said thermoplastic copolymer when the pesticide is not of formula R₃S_nX and when said pesticide is said R₃S_nX compound, the amount of said R₃S_nX pesticide ranging from about 25 parts to about 75 parts per 100 parts of said copolymer, and

a weighted anchor, said weighted anchor connected to said dispenser and said pesticide being slowly released from said thermoplastic dispenser.

2. A floating pesticide dispenser according to claim 1, wherein said pesticide is selected from the group consisting of tetramethyl-O,O'-thiodi-p-phenylene phosphorothioate; 2-(1-methylethoxy) phenol methylcarbamate; O,O-diethyl-O-(3,5,6-trichloro-2-pyridyl) phosphorothioate; or O,O-dimethyl phosphorodithioate ester of diethyl mercaptosuccinate, and said R₃S_nX compound.

3. A floating pesticide dispenser according to claim 2 further including in said dispenser a low density polyethylene thermoplastic, said polyethylene having a molecular weight of from about 100,000 to about 400,000 and existing in an amount of from about 30 percent to about 75 percent based upon the total weight of said polyethylene and said ethylene-vinyl acetate copolymer or said ethylene-propylene copolymer.

4. A floating pesticide dispenser according to claim 1, 2, or 3, including a porosity inducing agent, the amount of said porosity inducing agent ranging from about 5 to about 70 parts by weight per 100 parts of said copolymer when said pesticide is other than said R₃S_nX compound, the amount of said porosity inducing agent ranging from about 15 to about 70 parts by weight per 100 parts of copolymer when said pesticide is said R₃S_nX compound, said porosity inducing agent being selected from the group consisting of an oxide and a salt, said oxide and salt having a cation selected from the class consisting of the alkaline metals, the alkaline earth metals, ammonium, iron, zinc, nickel, silver, and tin, and said salt having an anion selected from the class consisting of a carbonate, bicarbonate, nitrate, nitrite, nitride, peroxide, phosphate, phosphite, phosphide, sulfate, sulfite, and sulfide.

5. A floating pesticide dispenser according to claim 4 wherein said pesticide is selected from the group con-