

JONESBORO MOSQUITO CONTROL

(Preliminary Report)

COMPARISON of 1991 and 1990 MOSQUITO-CONTROL SEASONS

	<u>1990</u>	<u>1991</u>
<u>BEGINNING/ENDING DATES:</u>		
May 1 to October 1 (both years)		
<u>B.T.I (bacterium) APPLICATIONS (for larvae):</u>		
# of Rice Acres Treated.....	7,425	7,380
<u>AERIAL APPLICATIONS (for adults):</u>		
# of Applications.....	1	8
Application Cost (flying only).....	\$ 1,650	\$ 7,300
('90 6 hr. at \$275 per hr.)		
('91 25 hr. at \$292 per hr.)		
Application Cost (chemicals only).....	\$ 4,750	\$25,650
Total Aerial Application Cost.....	\$ 9,400	\$32,950
<u>LIGHT-TRAP COLLECTIONS (adults):</u>		
Total from 7 Traps.....	51,963	45,348
Average Daily Count.....	340	290
Peak # in Counts.....	1,700	1,030

COMMENTS:

The primary difference between the 1991 control season and the preceding year was the additional number of aerial applications for control of adult mosquitoes in 1991. Whereas two of the eight application flights in 1991 treated the entire city, the remaining six were intended as "barrier treatments" and thus were concentrated over rice fields and portions of the city limits nearest to rice to maximize control/cost efficacy.

In general, the effectiveness of the 1991 aerial applications was judged to be quite good with light trap records indicating an approximate fifteen-percent reduction of mosquito adults. Random landing-rate observations conducted before and after aerial applications determined that all but one application produced distinctly positive results. (This one exception involved the use of Scourge rather than Malathion and occurred under acceptable but slightly windy conditions). The several very high (over 1,000) daily light-trap peaks of 1990 were almost completely eliminated in 1991 with daily trap numbers exceeding 1,000 only one time in mid-July.

Again, the use of "drip buckets" for the application of B.T.I. liquid to running water in rice fields was judged to be very effective. Although somewhat labor intensive, this technique has proven to be more than worth the effort involved. No late-season aerial application of B.T.I. for larva control was utilized in 1991. Preliminary preparations are already underway for this important/needed addition to the control program in 1992. It is believed this increased larva-control approach will help to further reduce the total number of adult mosquitoes and possibly will result in a reduction of aerial applications required for mosquito adults.

