

NEWS

FROM THE

ENGINEERING EXPERIMENT STATION

GEORGIA INSTITUTE OF TECHNOLOGY • ATLANTA, GEORGIA 30332

Contact: Jim Donovan/Sharon Sebaly
Publications and Information Office
(404) 894-3405

GEORGIA TECH RESEARCHERS STUDY PEST
INSECT BEHAVIOR BY USING RADAR

October 17, 1978

For Immediate Release

ATLANTA, GA.....As more and more pesticides are banned by EPA, and as the boll weevil, cabbage looper and locust continue to be attracted to U.S. agriculture, more effective means for controlling these pest insects must be found. Georgia Tech's Engineering Experiment Station is currently assisting the U.S. Department of Agriculture in determining some of the problems in using radar to locate insects and possibly identify them as they spread.

"This is a first step in the investigation that may one day lead to the reduction of the environmental impact of pesticides," according to Tech Project Director Gene Greneker. "We're in the early stages of investigating how tracking insects by radar may result in a long-term payoff for society. The benefit could be high not only in more efficient use of pesticides but also in technology transfer to other agricultural problem areas as well."

If the radar system concept is feasible, insects could be located in highly concentrated swarms while they are in flight. The spraying of the airborne swarms could reduce the amount of normally necessary pesticides and increase the efficiency. Radar also is valuable, according to the Georgia Tech radar team, in detecting nocturnal habits of insects and the speed with which the infestations are spreading. Greneker adds, "Before

-more-

advanced insect control techniques can be used successfully, insects' dispersal behavior must be known since this behavior often results in new infestations and expanded populations which must, in turn, be compensated for by pest management programs."

Georgia Tech researcher Gene Martin recently completed experiments in Lake Havasu City, Arizona. These tests were intended to determine what advantages could be realized by using millimeter wave radars for detection of insects. Martin comments, "Even though our research is still in the basic stages, it is a necessary step to determine true feasibility of the radar detection techniques that may be perfected over the next decade."

The current Georgia Tech program is funded through the U.S. Department of Agriculture's Southwestern Cotton Research Laboratory, Phoenix, Arizona.