Insect Control Methods Other Than Pesticides

Researchers have reached a turning point in the control of insects that destroy many billions of dollars worth of crops each year, according to an article in a publication of the U. S. Department of Agriculture issued recently.

The article. appearing in Agricultural Science Review, quarterly review of USDA's Cooperative State Research Service, is by Donald R. King of CSRS. He discusses some of the newer trends in entomological research in USDA and the State Agricultural Experiment Stations that eventually may lead to a reduced use of insecticides for the control of certain of our most important insect pests.

Dr. King showed that considerable emphasis is being placed on approaches to insect pest control other than the use of conventional insecticides, including biological control (insect parasites, predators, and diseases), varietal resistance of plants to insects, and methods that utilize insect sterility and attractants. Studies on the basic biology, physiology, and nutrition of insects have a relationship to all of the investigations, including chemical insecticides.

Among the non-pesticidal weapons is the stirility principle, which is being applied for the control of several insects. Investigations are under way on others. For this technique insects are mass reared in laboratories, genetically sterilized, and then released in their natural habitats where they compete with fertile insects — thus reducing their populations.

Dr. King points out that although the sterility approach will not apply to all or even a majority of insect pests, successes to date indicate further research will broaden its usefulness.

Other approaches to the control of insect pests now under way include biological research into hunter-insects and parasites that kill insect pests; releasing into the insect community various insect diseases; developing resistance of plants to insect enemies; and using various means to attract insects to their destruction

Each method in its own way has merit and limitations, and each approach is being pursued with an eye to its eventual integration into an overall scheme of control in the constant battle for the survival of man's agricultural productive needs, according to the article.

Housing For Broilers Will Be Discussed

More than 200 poultrymen from throughout the nation are expected to attend the third annual Broiler Housing Seminar October 1 at the University of Delaware's Georgetown agricultural substation.

Poultry industry leaders and scientists from five states will discuss new developments in poultry housing, with emphasis on research in controlled environment, according to Ray Lloyd, associate extension poultryman at the substation.

Lloyd will open the program with a report on a survey comparing improved environmental housing with conventional housing on the Delmarva peninsula. Frank D'Armi, University of Delaware poultry researcher, will discuss the University's windowless broiler house which has been in use for a year.

Ernest W. Walpole, extension agricultural engineer at the University, will explain new recommendations for broiler house ventilation. A year's study of housing ventilation has shown that broilers can be raised with less air circulation and lower temperatures than previously thought necessary. Use of the new recommendations should lower electricity and fuel costs, Walpole says.

Dr. Andrew Nalbandov, an endocrinologist and professor of animal genetics at the University of Illinois, will discuss some of the physiological and behavioral changes in chickens raised under the low light intensity of the windowless houses Because birds grown under these conditions are less active and do not have red combs, buyers have paid less for them than for broilers grown in conventional houses, even though low light intensity produces better birds, Lloyd says.

Others on the seminar program include Paul N Winn, associate professor of agricultural engineering at the University of Maryland, who will discuss research in temperature and humidity of broiler housing; Norman D. Augsburger, vice president of Acme Engineering and Manufacturing Co, Muskogee, Oklahoma, who will discuss aerodynamics of broiler house ventilation; and R. M. Ritchie, agricultural engineer at the University of North Carolina, discussing ways of modernizing existing broiler houses.

A panel discussion on improved environmental houses will feature four poultrymen outlining their experiences with these new houses. Included will be Tom Whittington, Whittington Poultry Farm, Marion, Md.; Stokes Homan, Otis Feed Co, Parsonsburg, Md; Bill Russell, Bayshore Foods, Easton, Md; and Stanley Street, Cohn & Bock Co., Princess Anne, Md

Poultrymen who plan to attend the seminar must register by September 24 Poultry industry leaders from 21 states attended the event last year.

The Broiler Housing Seminar is sponsored jointly by the Agricultural Extension Services of Delaware, Maryland and Virginia, the Delaware Poultry Improvement Association and Delmarva Poultry Industry, Inc.

USE PESTICIDES SAFELY

Read the label before you buy a pesticide, advise Penn State extension specialists. Make sure the label gives the name of the pest you want to kill. After you buy a pesticide, read the label again before using Then follow all label directions and precautions for storing, mixing, and applying the pesticide, and for disposing of unused material or the empty container.