

Experts use weather to control crop pests

COLUMBIA, Mo. — "Timing is everything when it comes to managing pests.

"And the weather-monitoring network we're developing, plus the integrated pest management program, will give us just the one-two punch we need to do the job," said Rodney Ward, University of Missouri-Columbia research entomologist.

So far, the weather network includes 34 stations across Missouri and 24 more stations in nine surrounding states—all gathering whether data to be fed into a computer.

Ultimate goal: Use weather to hit pests, weeds and diseases when and where it hurts.

Wayne Decker, chairman of the UMC Department of Atmospheric Science, and Mitchell Roof, coordinator of the UMC extension

Integrated Pest Management Program, are working with Rodney Ward and the National Weather Service to forecast when pest problems are likely and to tell farmers the best time to take action.

"The computerized weather-monitoring network plus pest scouting services by private consultants, agribusiness cooperatives or farm families themselves will really help us stay on top of pests," Ward said.

The network will have two completely automatic university-operated weather collecting stations, one at Linneus and another outside Columbia. These two stations will record hourly and daily soil temperature at the four-inch depth (bare soil), temperature five feet above the ground, wind velocity and direc-

tion, rainfall, relative humidity, solar radiation, soil moisture, and leaf wetness.

These and the other stations will be tied into a computer which will have information about the maturity and stages of insects and crop growth phenology (natural phenomena that affect plant and insect life cycles).

"In a year like this one, phenology becomes very important. With the mild winter and warm dry conditions turning to a cool, wet spring, this has been a fantastic year for insects," Ward said.

"In some cases where we depended on natural controls to keep pests in check, the weather got them out of sync and Mother Nature didn't get the job done."

Ward said that insects, just like plants, slow or speed up biological

processes, depending on the temperature. So, just spraying according to a calendar isn't enough; weather has to be considered or farmers will apply insecticides too early or late to get best results.

"Our computerized weather network will give farmers the knowhow they need to, apply pesticides of the best kind, both from the standpoint of economics and effectiveness," Ward said.

Just looking at a thermometer isn't enough for drawing conclusions about insect development and control. For example, Ward said the slope of the land may

throw the hatching time off by as much as a week.

Southern facing slopes are much warmer than those facing north, so the control of an insect like the alfalfa weevil might have to be managed to take that into account.

Ward is working with the new UMC forage entomologist, Rick Brandenburg, in a special effort to use weather information for more effective control of the alfalfa weevil.

"With this computerized weather base, farmers should be able to kill insects more effectively than ever," Ward said.

Red Polls Show at NAILE

LOUISVILLE, Ky. — Red Poll cattle from across America will return to Louisville during November as participants in the Kentucky National Red Poll Show and Sale activities. The events are slated to take place during the North American International Livestock Exposition on November 19.

Red Poll participation with a Kentucky National Show and Sale marks the second year the breed has been part of the internationally known NAILE.

The Kentucky National Red Poll show will take place on November 19 at 2 p.m., at the Kentucky Fair and Exposition Center. The Red Poll sale will be held on the same day, at 7 in the evening.

Noted purebred breeder Joe Bill Meng of Bowling Green, Kentucky, will be the judge for the NAILE Red Poll show.

The Kentucky National Red Poll Show and Sale is jointly sponsored by the Kentucky Council on Agriculture and the Kentucky Red Poll Association. Mike Johnson, president, Kentucky Red Poll Association, has confirmed premiums and awards for the show with total \$8,000.



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