

## Identification speeds pest battle

UNIVERSITY PARK — More than 1300 foreign insects are believed to be a threat to American agriculture, according to Ke Chung Kim, Penn State professor of entomology

Kim reported that 83 new foreign insect species became established in the United States from 1960 to 1969. Since 1972, several important plant pests from abroad have been



Penn State graduate student Peter H. Adler, of Charlestown, W. Va., uses a microscope to identify pest species.

discovered and identified through the Pennsylvania pest survey network, which Dr. Kim coordinates.

The Penn Stater is a taxonomist, a scientist who identifies and classifies insects and, above all, understands the relationships among the various species. He also serves as curator for

the Frost Entomological Museum at Penn State.

Prompt identification of foreign insects can make the difference between success and failure in controlling harmful pests, Dr. Kim said.

"Accurate identification of natural enemies, parasites, and predators is just as essential to pest

Lancaster Farming, Saturday, March 22, 1980—C17

management as correct identification of the pest species," Dr. Kim declared.

When a destructive beetle was found on barley and oats in Michigan, identification of the pest as the cereal leaf beetle directed a search for its parasites into Europe, starting in 1963.

Mass rearing and release of specific parasites began in 1967. Four of the five parasites introduced into Michigan and Indiana were successfully controlling the cereal leaf beetle by 1972.

Elsewhere, accurate identification was a key factor in controlling the cottony-cushion scale in California. In the eastern United States, with the help of taxonomists, parasites of Japanese beetles were brought in successfully from the Far East.

On the other hand, incomplete knowledge of pest species can "bungle" control efforts. Early attempts to establish parasites to control California red scales failed when no one could distinguish yellow scales and related species from red scales.

Finally, after taxonomists correctly identified California red scales, ef-

fective parasites were found in the Far East and were introduced. An error in classifying these same California red scales also sent entomologists (insect scientists) on another "wild goose chase," searching for parasites in South America.

Many parasitic wasps and flies are very much alike and thus are difficult to identify accurately, even by skilled specialists, it was noted. Mass rearing of parasites, especially tiny parasitic wasps, can be contaminated easily by unwanted but related species. Presence of improper species may go unnoticed for some time.

And there are many insect species which look superficially alike among natural enemies. That's where accurate identification of a species, based on good description and classification, can be the key to success in biological control, he said.

## Kniffen speaks to youths

CLEMENTON — Donald M. Kniffen, animal science specialist at Rutgers University, spoke to members and leaders at a 4-H Livestock Seminar held recently at the Camden County Extension Building.

Attending the program were 4-H members and leaders from Gloucester, Cape May and Burlington counties. In attendance from Camden County were the Goats Galore, Tansboro Trailblazers and Yearlings 4-H clubs.

Kniffen covered several topics in the seminar: longevity, maximum efficiency and judging techniques. Each of these are crucial for the 4-H'er to have a profitable livestock project.

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Brownstown is 6 miles north of Lancaster, PA on Rt. 222.

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