

Poultry respiratory investigation receives \$60,000 grant

COLLEGE PARK, Md. — Two veterinary research scientists for the Maryland Agricultural Experiment Station have received a federal grant to study respiratory diseases in chickens, using a technique that has enjoyed widespread success in differen-

tiating animal and human viruses. Respiratory diseases such as infectious bronchitis rob Delmarva broiler producers of more than \$6 million a year out of a total \$700 million industry, according to researchers Warren W. Marquardt and David B. Snyder.

"Present technology available for the rapid identification of different disease strains is cumbersome and time consuming," says Snyder, a virologist with the University of Maryland's Department of Veterinary Science. As a result, he says, evaluation

of different strains and developing vaccines to treat them have been critically delayed.

There study, therefore, takes existing technology — a process called immunoenzyme assay which rapidly measures infectious bronchitis antibodies in poultry flocks — and adds to it project-developed monoclonal antibodies capable of detecting minute differences between infectious bronchitis strains.

These monoclonal antibodies, says Marquardt, a university professor of veterinary science, are a "cleaned, refined" version of infectious antibodies, achieved through a cloning process.

It is a technique, he adds, that has been used with success on other animals and even on human subjects in detecting different look-alike viral strains.

"This will help us detect viral variants early so effective vaccines can be developed and employed before large economic losses are suffered by the broiler industry," he says.

Although the region's 418 million broilers are vaccinated for respiratory disease, outbreaks still occur frequently, say the two researchers.

"This strongly suggests a need for reevaluating this complex virus and the vaccines we have available now," says Marquardt.

Research scientists have been studying infectious bronchitis and other respiratory diseases in chickens since 1969 for the Maryland Agricultural Experiment Station.

Since then they have managed to characterize several hundred infectious bronchitis isolates. This collection represents one of the largest virus repositories of its kind and is a concrete example of the major problem researchers face in solving the respiratory disease riddle.

Because so many variations of this virus can creep into a poultry flock, outbreaks still occur in spite of vaccinations, says Marquardt. And readily available vaccines for the new viral strains do not exist.

It takes considerable time and money to develop new vaccines, say the two researchers, but the problem is confounded by the chameleon-like nature of viral strains. Until now, technology did not exist for researchers to identify minor variations between viral strains.

This has made prevention difficult since all the strains look virtually the same, says Marquardt.

Funding for the \$60,000 series of studies comes from the U.S. Department of Agriculture's Science and Education Administration.

USDA reaches export understanding with Japan

WASHINGTON, D.C. — Secretary of Agriculture John R. Block said U.S. Department of Agriculture officials have reached an agreement with the Japanese Ministry of Agriculture, Forestry and Fisheries on conditions under which Japan will accept shipments of certain U.S. produce.

The major points, Block said are:

—Japan will not accept any produce from areas of California quarantined for the Mediterranean fruit fly.

—Produce from outside the quarantined areas in California

will be accepted only if it is accompanied by a phytosanitary certificate—indicating it has been treated voluntarily by the exporters to fulfill specifications stipulated by the importer. The Japanese will also require a certificate of origin for the produce.

—Fruits and fruit-type vegetables such as cucumbers from other states shipped from California ports will be accepted in Japan if the produce is certified to have originated outside California and have been transported across California in sealed containers.

Discussions are continuing on which fruits and vegetables are to be considered hosts of the Medfly, Block said. And, USDA has invited Japan to send observers to a Medfly research facility in Hawaii for additional consultation with scientists. The Japanese delegation has also been invited to visit California, Block said.

"We're pleased to continue discussions with Japanese officials about the most expeditious way to move California and other U.S. produce, while keeping in mind the concerns of the Japanese about pest spread," Block said. "While we continue to believe measures we had previously mandated are adequate, we're cooperating with other nations so there can be as little disruption of trade as possible."

USDA extends Medfly quarantine

WASHINGTON, D.C. — Federal Mediterranean fruit fly quarantines were extended August 20 to part of Stanislaus County in the San Joaquin Valley, California's major commercial produce area, following a discovery of more than 50 Medflies and several properties containing larvae.

Also, part of Santa Cruz County, on the California coast, and a small area near Tampa, Florida, were placed under U.S. Department of Agriculture quarantine after entomologists found Medflies there.

"That find was the first we've found in a major commercial production area," said Harvey L. Ford, deputy administrator of the USDA's Animal and Plant Health Inspection Service. "The San Joaquin Valley is separated from the other infested areas by mountains, and working with California's Department of Food and Agriculture, we had hoped to be able to keep the area free of flies."

Ford said the Medfly may have been spread by travelers carrying illegal fruit out of areas already regulated—all of Alameda, San Mateo and Santa Clara Counties.

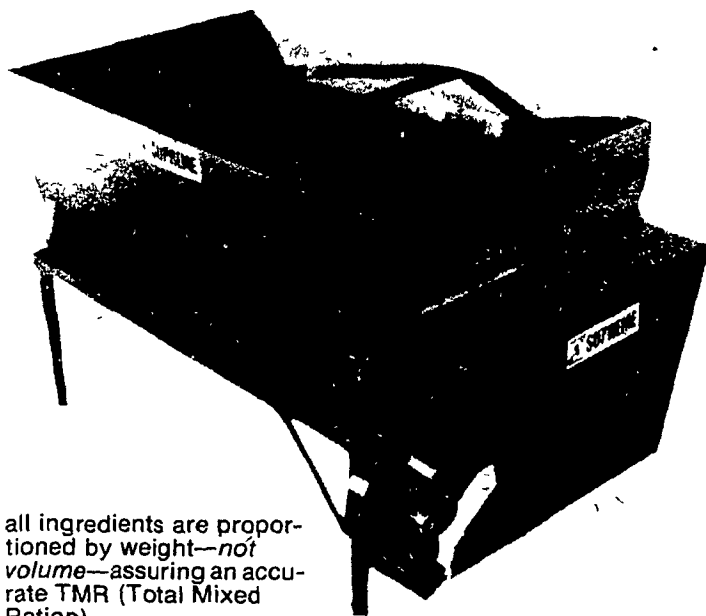
The federal regulations, which parallel state rules, require many kinds of fruits, vegetables, nuts and ornamental plants to be fumigated or subjected to cold for specified periods to kill Medflies before allowing the fruit out of the area. State regulations govern movement within the state, while federal regulations govern movement out of the state.

The regulated area in Stanislaus County includes a 262 square-mile area in the western portion of the county. The regulated area in Santa Cruz County includes the northern part of the county as far south as state route 17, including the city of Santa Cruz.

A four-square-mile area of Hillsborough County adjacent to the area already regulated near Tampa, Florida, has also been quarantined.

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