

REPORT OF THE COMMITTEE ON ECONOMICS  
AND QUANTITATIVE EPIDEMIOLOGY

May 17, 1989

The objectives of this committee are to determine the prevalence, characteristics and costs of various poultry diseases in different regions of the U.S. In the past year this committee focused on:

1. developing a framework to meet its objective;
2. identifying resources, including key people, with reliable information;
3. developing a bibliography of appropriate information.

A summary is provided for the estimated costs of disease to the poultry industry. A full report, including a bibliography, will be distributed at the annual committee meeting to be held on Monday, July 17, 1989 from 5:00 to 6:00 PM at the Boardroom at the Peabody Orlando Hotel. An invitation to participate in the committee's activities is extended to all interested parties.

#### LAYERS

About 265 million layers were placed in 1988, down about 5% from 1987, plus about 185 million replacement pullets. The layer industry produced 5.8 billion dozen eggs in 1988 with a value of \$3.06 billion or \$0.528 per dozen. It was estimated that disease cost the U.S. layer industry \$132 million in 1988, comprised of \$11 million for prevention, \$16 million for treatment and \$105 million in lost production. This amounted to \$.023 per dozen eggs and 4.3% of the total egg market value. An additional \$100 million in annualized value for housing, equipment and improvements had an important effect in reducing disease in the layer industry. The major diseases, in decreasing order of economic impact, were: mycoplasmosis, colibacillosis, Marek's disease, infectious bursal disease, coccidiosis, laryngotracheitis, infectious bronchitis, and Newcastle disease.

#### TURKEYS

The turkey industry produced 5.8 billion pounds of live weight in 1988 from 260 million turkeys, with a total value of \$1.95 billion. Disease cost the U.S. turkey industry an estimated \$222 million in 1988, of which \$19 million was spent on prevention, \$7 million on prevention and \$166 million was for lost production. The remainder was spent on health staffs and for shavings. This amounted to \$0.044 per pound live weight and 11.4% of the total value. The annual value of housing and equipment was estimated at \$33 million. The major diseases, in decreasing order of economic importance were: colibacillosis, enteritis, fowl cholera, leg problems, coccidiosis, coryza and air sac.

## BROILERS

In 1988, 5.24 billion broilers were raised producing 22.58 billion pounds of live weight, valued at \$7.43 billion or \$0.331 per pound. The cost of disease to the broiler industry was estimated at \$588 million. This was made up of \$122 million for preventative medications and vaccinations, \$12 million for treatment drugs and \$334 million for production losses. The difference was spent on health staffs and for shavings. This was \$0.026 per pound live weight and 7.9% of the total market value. Housing and equipment costs in the broiler industry were estimated at an annual value of \$190 million. The major broiler diseases in descending order of economic importance were: respiratory diseases (including Newcastle disease, infectious bronchitis and airsacculitis), colibacillosis, coccidiosis, enteritis, infectious bursal disease and Marek's disease.

## OBJECTIVES FOR 1989

The objectives for this committee for the next year are:

1. Compute cost estimates of diseases in the poultry industry for 1989; refine calculation methods;
2. Expand bibliography;
3. Identify the regional prevalence of one or more major disease.

Respectfully submitted,

Michael P. Morris  
404-769-9755

0430.AAAB.012.0M.031