

REPORT OF THE COMMITTEE ON
TRANSMISSIBLE DISEASES OF POULTRY

Chairman: Raymond A. Bankowski, Davis, CA

Members: Bobby Baros, Everett S. Bryant, Francis G. Buzzell, Morris S. Cover,
G. A. Erickson, H. E. Goldstein, L. C. Grumbles, Robert L. Hogue,
D. D. King, Thomas L. Landers, Hiram N. Lasher, E. T. Mallinson,
R. McCapes, C. D. Murphy, H. E. Nadler, T. D. Njaka, W. C. Patterson,
J. E. Pearson, I. L. Peterson, G. F. Pierson, Ben S. Pomeroy,
James B. Roberts, T. B. Ryan, Raymond Schar, John A. Smiley, and
H. W. Towers.

The Committee met at 1:30pm, October 30, 1979. Seventeen members and eighteen guests attended.

Newcastle Disease

During fiscal year 1978, domestic surveillance of poultry did not reveal any cases of exotic Newcastle disease in poultry in the continental United States. Increased effectiveness in border and port enforcement and alert surveillance by field personnel aided in the effort. In the early part of 1979, two infections were detected in caged pet birds which were recently introduced into the United States.

On February 20, 1979, exotic Newcastle disease was confirmed at the National Veterinary Services Laboratories (NVSL), Ames, Iowa, from specimens submitted from a citron crested cockatoo at Stanton, Orange County, California. The disease was traced to a bird-holding facility to house birds as they were released from a privately-owned import quarantine station, both under the same ownership and management. Sales and shipments of birds from the holding facility were traced and evaluated. As a result, birds on ten commercial and seven privately-owned premises in Los Angeles, Orange, San Bernardino, and

Riverside Counties, California, were positive for exotic Newcastle disease.

In addition to California, movements of birds from infected premises were traced to Arizona, Illinois, Minnesota, Nevada, Oregon, Texas, Utah, and Washington.

On March 24, 1979, another case of exotic Newcastle disease was confirmed in the holding facility used to house birds after release from a USDA-approved, privately-owned import quarantine station at Miami, Florida.

A total of 109 shipments were made from this infected facility to 29 states and the Commonwealth of Puerto Rico. As a result of these tracings and evaluations, positive cases were disclosed in Illinois, Michigan, North Carolina, Ohio, and Texas. No commercial poultry were involved in either the California or Florida outbreaks. Since there is no known treatment for this disease, the infected caged birds involved were appraised & humanely destroyed and the premises cleaned and disinfected. The cost to eliminate these outbreaks to APHIS was estimated to be \$1.8 million.

Puerto Rico currently is under Federal quarantine for exotic Newcastle disease. Dr. D. C. Johnson reported on a surveillance for exotic Newcastle disease on the Island, which began on June 4, 1979. After an extensive study involving 64 laying flocks, an equal number of broiler flocks, 105 fighting cocks, and 217 backyard flocks, no evidence of VNND was detected. It will be recommended that the Commonwealth of Puerto Rico be released from quarantine for exotic Newcastle disease.

Avian Influenza

Outbreaks of Avian Influenza were encountered in three different areas of the country, North Central area (Minnesota, South Dakota, Wisconsin), California, and Texas. Minnesota experienced an extensive outbreak involving more than 120

market flocks, 11 breeder flocks, and one chicken operation involving over two million market turkeys, 27,600 turkey breeders, and 185,000 laying chickens.

The dominate serotype in Minnesota was Hav6N1 with single isolations of Hav4Neq2, Hav6Neq2, Hav9N2, and Hsw1N1. The loss attributed to the outbreak was approximately \$5,000,000. A bivalent (Hav6, Hav4) oil emulsion killed (BPL) vaccine was prepared by a commercial laboratory and used extensively in breeder & market flocks. Monovalent vaccines have been made available for future use (Hav2, Hav4, Hav6, Hav9) for use singly or in combination.

In California, Hav5 Nav2 has been involved in seven breeder flocks involving over 25,000 birds. The predominate signs were marked drop in egg production, respiratory distress, anorexia and depression. There was some mortality with high morbidity. An autogenous inactivated (Bromo-Ethenimine) vaccine was made by a commercial company.

In Texas, four turkey breeder flocks on two farms involving 35,000 birds were involved with drop in egg production, anorexia and depression and respiratory signs. The serotype involved was Hav1Nav1. A killed (BPL) vaccine was prepared by a commercial laboratory and used on breeder flocks. The Hav1 isolate was found nonpathogenic to young chickens and turkeys.

In view of the seriousness of avian influenza in turkey flocks in the U.S. during the past few years and in chickens and turkeys throughout the world, the Committee adopted a resolution urging the USDA and USAID to develop an international symposium on avian influenza. The later is to adopt a common understanding on the epizootiology, identification and classification of strain virulence as well as other aspects on prevention and control of this disease. A more detailed report on avian influenza in turkeys in the U. S. was presented at the general session, by Dr. B. Pomeroy, et al., and is published in these proceedings.

Dr. J. E. Pearson of the National Veterinary Services Laboratory, Ames, Iowa, submitted more detailed information on hemagglutinating (HA) agents other than Newcastle disease virus which were isolated from samples from birds from quarantine stations. Very few of the isolates have been identified. On inoculation, none of them were pathogenic for young chickens and turkeys, however, the Committee is concerned that there is no information on their effect on poultry health and particularly on egg production. The number of hemagglutinating isolates from the various species were as follows:

<u>Species</u>	Number of Isolations 1978	Number of Isolations 1979
	<u>Jan 1-Dec 31</u>	<u>Jan 1-Oct 1</u>
Finch	782	413
Parrot	118	175
Parakeet	111	10
Conure	4	7
Canary	3	4
Cockatoo	3	1
Cockatiel	29	
Mynah	4	11
Macaw		1
Rosella	6	
Hornbill		1
Waxbill	4	1
Crane		1
Song Sparrow		2
Cardinal	1	
Pekin Robin	8	
Lovebird	<u>10</u>	<u>8</u>
Total	1083	635

In 1978 there were 35,501 samples tested; and so far in 1979, there have been 20,274 samples tested. Of these, approximately 3.2% of the samples tested each year were positive for HA viruses.

Adenovirus

In spite of surveys indicating that antibodies to adeno-virus 127 are widespread in duck populations in the U.S., the consensus of the Committee was that the condition known as "egg drop syndrome 76" of Europe is not known to exist in the U.S.

Experiments at the South east Poultry Laboratory (SEPRL), Athens, Georgia, have shown that an isolate of Adenovirus from Missouri ducks, serologically similar to the agent causing ED-76, did not cause the classical egg drop syndrome in broiler, breeder, or egg type chickens. The classical syndrome was reproduced with the inoculation of Adenovirus 127 from Great Britain. The U. S. duck adenovirus protected chickens against an egg drop induced by subsequent challenge with Adenovirus 127. Sera from chickens previously infected with Adenovirus 127 had extremely high HI titers. Some unexposed normal commercial chickens had titers of 1/20 or less.

Similar experiments with laying white Leghorn chickens were conducted at the University of California, Davis, California. An adeno-virus, which is serologically related to Adeno 127, was isolated from commercially raised white-pekkin ducks did not cause clinical signs or a drop in egg production in two trials.

Certified VVND Negative Flocks

A report of the January 25, 1979, meeting of the subcommittee on VVND-Negative Flock Certification Program for chickens was given. It is the consensus of the subcommittee that a program of the type recommended for turkeys was desirable and feasible for egg and broiler type primary breeding flocks. Additional meetings of the subcommittee are recommended to develop a specific chicken program for consideration by the full committee.

In the absence of a publication of an official program from USDA regarding the 1978 USAHA recommendation to USDA-APHIS for the adoption of a VVND-Negative Flock Certification Program for Turkey Primary Breeding Flocks, the Committee reinforces its recommendation that the USDA made available to the industry and State Regulatory agencies a program of standard rules and regulations for certification of primary turkey breeders flocks as adopted and outlined in our last years (1978) report.

Salmonella gallinarum - Fowl Typhoid

This Committee directed its attention to the Data Report on Salmonella Gallinarum isolations as reported to NPIP in the 1969-1978 time period. As a result of this data, it is apparent that the organized poultry industry of this nation under the direction of the NPI plans have reduced the incidence of Salmonella gallinarum to an all-time low rate.

This Committee is concerned with the increase incidence of fowl typhoid reported in other countries either from natural exposure or from the use of vaccines, and recommends that APHIS, Veterinary Services, USDA, take every step possible to prevent the spread of this disease within our nation, and to eliminate the threat of S. gallinarum being introduced into our country from the outside.

The Committee recommends that the General Conference Committee of the National Poultry Inspection Plans Program direct their attention to establishing the criterion for total eradication of fowl typhoid, and attempt to stimulate the state regulatory officials cooperating with APHIS, Veterinary Services, to engage in programs that will ultimately eradicate this disease.

Cage and Aviary Birds

The report of the Subcommittee on cage and aviary birds presented both areas of positive development and points of urgent concern among aviculturists of the estimated \$500 million pet bird industry. The following outlines major findings

Positive Developments

1. Active support of pet and exotic bird disease research on Pacheco's Disease vaccination, psittacosis, salmonellosis, bird pox, and colibacillosis, by several major aviculturists associations and institutes.
2. Universities, colleges, aviculture and veterinary associations have begun vigorous promotion of continuing education in aviculture and avian medicine.
3. Mutually satisfactory accords have been achieved between government and aviculture on: the handling of future outbreaks of exotic Newcastle disease; and the effective captive propagation of rare or endangered species.
4. A positive, promotional rather than negative restrictive strategy towards a national supply of safe, healthy birds is being developed. The American Federation of Aviculture and the Pennsylvania Department of Agriculture are initiating ambitious programs to promote domestic production of cage pet and exotic birds that will hopefully and eventually curb the trafficking in smuggled birds. The former beginning to establish and maintain a national breeding registry of birds not commonly raised in captivity. The latter developing a state directory of small or large local operations providing domestically bred cage pet birds for retail sale.

Urgent Concerns

1. Possible over-restriction of the legitimate, responsible importer and possible weak prosecution of quarantine station operators guilty of questionable activities, poor sanitation, inhumane management of birds, violation of USDA regulations, and seriously deficient antibiotic treatment for psittacosis.

2. Deleterious effects from unsanitary conditions possible during 30-day quarantine period in USDA "isolettes".
3. Continuing weaknesses in identification techniques for all birds and especially regarding smaller species.
4. Import station permits may not be granted in the most democratic, impartial basis so as to preclude monopolization and possible bird arbitrary price increases.
5. Lack of attention at quarantine stations to diseases of birds that do not affect poultry but can cause major losses to bird dealers and breeders.
6. Need for recognition and classification of aviculture as a significant, multimillion dollar, form of agricultural livestock production.

General Recommendations

The Subcommittee on Cage and Aviary Birds should continue its function and next year's activity should emphasize: expanded and strengthened, instruction by veterinary colleges in avian medicine; and widespread development of state and other official directories of domestic bird breeding operations as positive rather than restrictive programs for aviculture.

The Committee recommends that USDA, APHIS, Veterinary Services, take corrective action concerning the several urgent quarantine facility concerns listed above.

Additionally, the Committee specifically recommends that: The present responsibility for psittacosis control in imported birds, now vested with the U.S. Public Health Service, has proved to be ineffectual and that authority for enforcement should now be given to USDA.

The Committee deliberated the problems and status of the bird import quarantine facilities. There are approximately 96 privately-owned quarantine stations with many pending applications. As a result of the discussion, a resolution was proposed requesting that the U.S. Animal Health Association urge the USDA to establish quarantine facilities for importing exotic birds as is done with all other animals and that no privately-owned stations be allowed. This proposal was approved by the Committee, and the resolution sent to the Resolutions Committee.

Other Topics

The Committee recommends that USAHA convey to USDA, SEA and APHIS the necessity to maintain adequate financial support for avian health and disease research and control programs in the 1981 budget. A copy of the Committee recommendation is to be sent to: National Turkey Federation; Southeastern Poultry and Egg Assn.; Pacific Egg and Poultry Association; National Broiler Council; Poultry and Egg Institute; American Association of Avian Pathologists; General Conference Committee; National Poultry Improvement Plan.

The subcommittee on extra support of area diagnostic laboratories to help with reagents and professional staff established in 1976 appears to be unnecessary at this time and the members present (Grumble, Rosenwald, and Bryant) recommended that it be inactivated. If the need should arise again, the subcommittee could then be reactivated.

The following subcommittees were formed:

AVIAN INFLUENZA: R. A. Bankowski, C. Beard, D. King, J. Pearson, I. Petersen, ^{L.C. GRUMBLES} and
B. S. Pomeroy, Chairman.

U.S. POULTRY HEALTH ADVISORY COMMITTEE TO APHIS: E. Bryant, H. Goldstein, R. Hogue, I. Peterson, B. Pomeroy, T. Ryan, and R. McCapes, Chairman.

MYCOPLASMOSIS: W. Dungan, K. Hand, D. Johnson, B.S. Pomeroy, R. Yamamoto, I. Petersen, and E. T. Mallinson, Chairman.

POULTRY FLOCK CERTIFICATION PROGRAM: R. A. Bankowski, F. Craig, H. Goldstein, A. Mixson, B. Nicholas, B. Pomeroy, P. Smith, R. Rumsey, C. Weston, D. Zander, and R. McCapes, Chairman.

CAGE AND AVIARY BIRDS: R. Cooper, G. J. Harrison, B. Levine, E. Mallinson, H. Nadler, J. Pearson, and A. C. Rissen, Jr. and R. E. Baer, Chairman.