



# The Poultry Informed Professional

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*The American Association of Avian Pathologists held their annual meeting at the 138th AVMA annual convention in Boston, Massachusetts, July 14-18, 2001. The following Summaries were prepared by MAM Candidates at the University of Georgia.*

## Effects of Turkey Coronavirus Infection on Turkey Breeder Hen Performance

David V. Rives and James S. Guy  
Prestage Farms and North Carolina State University

This presentation outlined a case of a turkey breeder flock that was infected during lay with turkey coronavirus (TCV). The breeder farm was located in a TCV "hot" area with surrounding grow-out farms testing positive. The farm was previously multi-age, then a MG break forced depopulation resulting in a single age farm currently.

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Broiler Performance Data (Region) Live Production Cost					
	SW	Midwest	Southeast	Mid-Atlantic	S-Central
Feed cost/ton w/o color (\$)	134.30	131.33	133.65	133.28	130.30
Feed cost/lb meat (¢)	12.58	11.50	12.42	13.14	12.37
Days to 4.6 lbs	45	47	44	45	47
Chick cost/lb (¢)	3.87	3.96	3.95	3.61	4.22
Vac-Med cost/lb (¢)	0.08	0.05	0.10	0.04	0.05
WB & 1/2 parts condemn. cost/lb	0.19	0.17	0.15	0.17	0.25
% mortality	4.04	3.53	3.87	4.89	5.01
Sq. Ft. @ placement	0.83	0.79	0.81	0.81	0.80
Lbs./Sq. Ft.	6.36	6.21	6.20	6.86	5.82
Down time (days)	13	9	13	14	11

Data for week ending 8/11/01

At moving, the hens tested serologically negative for TCV. The hens displayed a normal onset of production until 42 weeks of age. The hens then had mild flushing and decreased feed consumption with an approximate 26% drop in feed intake. The house that first experienced the flushing was the most severely affected on the farm. Settable egg production dropped by 42%, with eggshells observed to be pale, thin, and chalky. The changes in shell quality were assumed to be linked with decreased feed intake and nutrient malabsorption. The shell quality issues lead to a decrease in 7-day fertility of 7%, however this drop is more likely an increase in early dead embryos.

Additionally, cull eggs also increased during this episode due to virus, with an increase of over 100%. Isolation attempts on eggs during this episode were negative for TCV and NDV. Acute and convalescent sera showed a significant rise in TCV sero-positive birds between the two testing periods, indicating seroconversion to TCV.

*Karen Burns, DVM*  
MAM Candidate

### California 99 and Nebraska 95 strains of Infectious Bronchitis Virus: Molecular and Serological Characterization

Mark W. Jackwood and Deborah A. Hilt  
University of Georgia

Dr. Mark Jackwood presented the latest characterization of the California 99 (CA99) and Nebraska 95 (NE95) field isolates of infectious bronchitis. The two viruses have been isolated from broilers in California for the CA99 serotype and in the Midwest and Southeast for NE 95. Molecular techniques have been utilized in attempts to identify the California and Nebraska strains and examine their relatedness to each other and other IBV serotypes. Routine diagnostic RT-PCR and RFLP indicated that the two viruses were very similar in patterns on RFLP. To further understand the relationship, the entire S1 gene was amplified using RT-PCR. Genetic sequencing was then analyzed to look at specific sections of the S1 gene. Phylogenetic relationships were then determined looking at the HV2 region. CA99 and NE 95 are approximately 99% related in terms of genetic analysis. The closest related serotype is the Arkansas DPI serogroup, but that group is a distant relation at only 85%. Serological testing through cross virus neutralization further indicates that the two serotypes are clearly related. Archetti-Horsfall Relatedness values of 61% indicate that the two viruses are very closely related.

*Karen Burns, DVM*  
MAM Candidate

#### Broiler Performance Data (Company) Live Production Cost

	Average Co.	Top 25%
Feed cost/ton w/o color (\$)	132.60	127.63
Feed cost/lb meat (¢)	12.52	11.85
Days to 4.6 lbs	45	45
Chick cost/lb (¢)	4.01	3.65
Vac-Med cost/lb (¢)	0.07	0.05
WB & 1/2 parts condemn. cost/lb	0.19	0.12
% mortality	4.44	3.43
Sq. Ft. @ placement	0.80	0.79
Lbs./Sq. Ft.	6.27	6.12
Down time (days)	12	13

Data for week ending 8/11/01

*Continued on Page 3*

#### Broiler Whole Bird Condemnation (Region)

	SW	Mid-West	S. East	Mid-Atlantic	S. Central
% Septox	0.231	0.291	0.333	0.314	0.323
% Airsac	0.076	0.042	0.100	0.079	0.135
% I.P.	0.114	0.023	0.030	0.045	0.042
% Leukosis	0.005	0.002	0.001	0.017	0.003
% Bruise	0.012	0.004	0.010	0.008	0.007
% Other	0.019	0.004	0.011	0.007	0.024
% Total	0.457	0.356	0.285	0.370	0.534
% 1/2 parts condemnations	0.397	0.536	0.442	0.403	0.567

Data for week ending 8/11/01

## Recent National and International Avian Influenza Outbreaks

David Swayne  
Southeast Poultry Research Laboratory, USDA

During 1999-2000, an outbreak of highly pathogenic avian influenza (HPAI) (H7N1) occurred in Italy as a result of a mutation of a mildly pathogenic avian influenza (MPAI) virus. This H7N1 HPAI virus was eradicated on April 2000 by a depopulation program, but the H7N1 MPAI virus has re-emerged in poultry of northern Italy during August 2000. Control of this outbreak is being attempted by use of an inactivated whole virus vaccine (H7N3) in turkeys and layers and by a controlled marketing program. The Mexico outbreak of MPAI (H5N2) in 1997 may be present along with an outbreak of vvNDV. A rapid and accurate diagnosis of AI is not readily available, therefore, some confusion exists as to a definitive diagnosis of field cases of vvNDV and AI. Other outbreaks of MPAI (H5N2) have been reported recently in Guatemala and El Salvador. H7N2 have been isolated in the U.S. live poultry market. Closely related MPAI viruses (H9N2) have been reported to be the cause of morbidity and mortality in Saudi Arabia, Iran, Pakistan, and China. Serological evidence of a widespread infection of H9N2 viruses was also found in live-bird markets in Hong Kong during the year 2000. H9N2 AI viruses were first reported in China in the mid-1990's and spread to the Middle East and Pakistan in the late 1990's. Similar to the Central America outbreak, vvNDV has complicated the diagnosis and control of this group of MPAI viruses. Additionally, during the year 2000, the Department of Agriculture, Fisheries and Conservation, isolated several HPAI viruses (H5N1) from geese or swabs from goose cages in the Hong Kong wholesale market. The same types of viruses were isolated in 1999 from live bird markets of geese and ducks. Based on studies at SEPRL, the 1999 H5N1 viruses have the same hemagglutinin gene as the 1997 H5N1 AI viruses.

*Jaime Ruiz,  
DVM MAM*

## Candidate Newcastle Disease Vaccine Failure in Commercial Broilers

Dennis Senne  
National Veterinary Services Laboratory, USDA

Dr. Senne presented a review of an outbreak of exotic vvNDV in Northern Mexico near the Texas border during the year 2000. The company involved in the outbreak was using reduced dosages of live Newcastle disease (ND) vaccine in order to reduce adverse reactions. The vaccination program included spray of 1/4th dose of the B1 at day one followed by 1/4th vaccine of the dose of B1 at 14 days (spray or drinking water). Thirteen million birds were affected in a 55 km (34 miles) radius. The disease spread in four weeks. Affected birds showed central nervous signs including torticollis and opisthotonus. Strategies to control the outbreak included depopulation of affected flocks and changes in the vaccination program as follows: Full dose of LaSota sprayed at the hatchery plus 0.2 ml of ND killed vaccine (subcutaneous injection) followed by full dose of LaSota at 14 days (eye drop) plus 0.5 ml of inactivated emulsified NDV (subcutaneous injection). LaSota was sprayed again at days 24 and 35. This vaccination program showed satisfactory results in preventing vvNDV in the area of the outbreak.

*Jamie Ruiz,  
DVM MAM Candidate*

## Lesions Associated with an Accidental Head Injection with a Live Fowl Cholera Vaccine

Robin Gilbert  
Merial-Select

A recent case of subcutaneous head lesions was presented in broiler breeders. The head lesions contained *E. coli*, *Proteus sp.* and *Pseudomonas sp.*, and drainage into the sinuses was noted. Originally it was felt the lesions originated internally and not from trauma, such as pecking. Upon further investigation, it was found the breeder flocks originated from the same pullet farm and it was suspected the lesions resulted from the 12-week live cholera vaccination. Questions then arose as to whether the lesions were from an accidental or deliberate injection. In an attempt to reproduce the lesions, a control set of pullets were given no injection, a second set was given 1/5 the dose live cholera vaccine S.Q. in the head. This was to simulate an accidental injection through the wing into the head area. The last set of pullets was given a full dose live cholera vaccine S.Q. in the head. All birds were necropsied and histopathology and culture were performed. In the control set, no lesions were noted. In the 1/5 dose set, there were no lesions to only mild subcutaneous edema, bruising, and inflammation. With a full dose, mild to moderate abscess formation was noted. In one case, neurological signs were noted with severe abscessation. Upon histological examination, areas of exudate contained inflammatory debris with bacteria. *Pasteurella multocida* was isolated from the abscesses. Since it took a full dose of vaccine to reproduce the lesions, it was determined that deliberate injection in the head must have occurred from a member of the vaccination crew.

Sara Steinlage, DVM  
MAM Candidate

### Broiler Whole Bird Condemnation (Company)

	Average Co.	Top 25%
% Septox	0.236	0.181
% Airsac	0.085	0.055
% I.P.	0.060	0.047
% Leukosis	0.008	0.007
% Bruise	0.009	0.010
% Other	0.013	0.005
% Total	0.411	0.305
% 1/2 parts condemnations	0.468	0.250

Data for week ending 8/11/01



The University of Georgia is committed to the principle of affirmative action and shall not discriminate against otherwise qualified persons on the basis of race, color, religion, national origin, sex, age, physical or mental handicap, disability, or veteran's status in its recruitment, admissions, employment, facility and program accessibility, or services.

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# Excerpts from the latest USDA National Agricultural Statistics Service (NASS) "Broiler Hatchery," "Chicken and Eggs" and "Turkey Hatchery" Reports and Economic Research Service (ERS) "Livestock, Dairy and Poultry Situation and Outlook" Reports

Oklahoma. Data collection and weekly estimates began with the week ending April 7, 2001.

Commercial hatcheries for the 19 States set a total of 202 million eggs in incubators during the week ending August 11, 2001. Broiler growers in the 19 States placed 166 million chicks for meat production during the week ending August 11, 2001.

## July Egg Production Up 2 Percent

U.S. egg production totaled 7.18 billion during July 2001, up 2 percent from last year. Production included 6.09 billion table eggs and 1.10 billion hatching eggs, of which 1.03 billion were broiler-type and 66.0 million were egg-type. The total number of layers during July 2001 averaged 332 million, up 2 percent from the total average number of layers during July 2000. July egg production per 100 layers was 2,165 eggs, slightly below the 2,169 eggs in July 2000.

All layers in the U.S. on August 1, 2001, totaled 332 million, up 2 percent from a year ago. The 332 million layers consisted of 273 million layers producing table or commercial type eggs, 55.9 million layers producing broiler-type hatching eggs, and 2.77 million layers producing egg-type hatching eggs. Rate of lay per day on August 1, 2001, averaged 69.8 eggs per 100 layers, down slightly from the 70.1 eggs a year ago.

Laying flocks in the 30 major egg producing States produced 6.72 billion eggs during July 2001, up 2 percent from July 2000. The average number of layers during July, at 311 million, was up 2 percent from a year earlier.

## Egg-Type Chicks Hatched Up 14 Percent

Egg-type chicks hatched during July totaled 37.9 million, up 14 percent from July 2000. Eggs in incubators totaled 30.9 million on August 1, 2001, up 2 percent from a year ago.

Domestic placements of egg-type pullet chicks for future hatchery supply flocks by leading breeders totaled 322,000 during July 2001, down 9 percent from July 2000.

## Broiler Hatch Up 3 Percent

The July 2001 hatch of broiler-type chicks, at 760 million, was up 3 percent from July of the previous year. There were 629 million eggs in incubators on August 1, 2001, up 2 percent from a year earlier.

Leading breeders placed 6.33 million broiler-type pullet chicks for future domestic hatchery supply flocks during July 2001, down slightly from July 2000.

## Turkey Eggs in Incubators on August 1 Up 3 Percent From Last Year

Turkey eggs in incubators on August 1, 2001, in the United States totaled 32.1 million, up 3 percent from August 1 a year ago. Eggs in incubators were down 3 percent from the July 1 total of 33.1 million. Regional changes from the previous year were: East North Central, unchanged; West North Central, up 9 percent; North and South Atlantic, up 8 percent; South Central, down 9 percent; and West, down 11 percent.

## Broiler Eggs Set In 15 Selected States Up 2 Percent

According to the latest National Agricultural Statistics Service (NASS) reports, commercial hatcheries in the 15-State weekly program set 182 million eggs in incubators during the week ending August 11, 2001. This was up 2 percent from the eggs set the corresponding week a year earlier. Average hatchability for chicks hatched during the week was 82 percent. Average hatchability is calculated by dividing chicks hatched during the week by eggs set three weeks earlier.

## Broiler Chicks Placed Up 4 Percent

Broiler growers in the 15-State weekly program placed 148 million chicks for meat production during the week ending August 11, 2001. Placements were up 4 percent from the comparable week in 2000. Cumulative placements from December 31, 2000 through August 11, 2001 were 4.72 billion, up 1 percent from the same period a year earlier.

## Four Additional States in Weekly Program

Beginning May 16, 2001 four additional States were added to the weekly program for broiler eggs set in incubators and broiler chicks placed for meat production. The four additional States are Kentucky, Louisiana, Missouri, and

### **Poults Placed During July Up 1 Percent From Last Year**

The 27.1 million poults placed during July 2001 in the United States were up 1 percent from the number placed during the same month a year ago. Placements were up 4 percent from the June 2001 total of 26.0 million. Regional changes from the previous year were: East North Central, up 12 percent; West North Central, up 1 percent; North and South Atlantic, up 6 percent; South Central, down 15 percent; and West, down 9 percent.

### **Broiler Prices Increase**

According to the the latest Economic Research Service (ERS) Reports, slightly higher broiler production in first-half 2001, combined with continued strength in the export market, have begun to strengthen domestic prices for many broiler parts. In May, leg quarters (bulk pack) in the Northeast region averaged 30.1 cents a pound, up 40 percent from the previous year. Wing prices in the Northeast region increased even more, going from 59.3 cents a pound in May 2000 to 104 cents a pound a year later, an increase of 75 percent.

With prices for many broiler parts strengthening and stock levels at the end of May down 20 percent from the previous year, processors have responded by starting to build up production. The weekly estimates of broiler eggs in incubators and weekly chick placements have started to move above those of a year ago. The last two weeks of data (through July 7), showed eggs placed in incubators up 3 percent over the same weeks in 2000. Broiler production in the second and third quarters of 2001 is expected to increase nearly 2 percent over a year earlier.

Strong broiler exports have continued to be a bright spot for the domestic broiler industry. Exports in May were 510 million pounds, an increase of 25 percent from May 2000. Through the first five months of 2001, broiler exports have totaled 2.6 billion pounds, an increase of 21 percent from the same period in 2000. While exports are not increasing to all countries, higher shipments to a large group of countries have offset any falling exports to countries that have been more strongly impacted by the economic slowdowns, such as Japan. Exports to Asian countries are mixed, but a number of the larger markets such as Hong Kong, Korea, and Taiwan rose strongly. Shipments directly to Russia are much higher than the previous year and broiler exports to a number of Newly Independent States are also up considerably. The pace of growth in exports is expected to slow somewhat in the second half of the year. For all of 2001, broiler exports are expected to total 5.9 billion pounds, up 7 percent from the previous year.

### ***REMINDER***

All previous issues of the Poultry Informed Professional are archived on our website [www.avian.uga.edu](http://www.avian.uga.edu) under the Online Documents and The Poultry Informed Professional links.

# 2000 in Review

## Broiler-Type Chicks Hatched Up 1 Percent

Broiler-type chicks hatched during 2000 totalled 8.79 billion, an increase of 1 percent from 1999. This record level continues the trend of annual increases begun in 1975.

Leading breeders had intended placements of 82.5 million broiler-type pullet chicks for future domestic hatchery supply flocks during 2000, a decrease of 3 percent from 1999.

## 15-State Broiler Placements

Placements of broiler chicks in the 15-State weekly programs totaled 7.48 billion during the 52 week period ending December 30, 2000. This total was 1 percent larger than the comparable period a year earlier.

## Egg-Type Chicks Hatched Down 5 Percent

Egg-type chicks hatched during 2000 totalled 430 million, down 5 percent from 1999.

Leading breeders had intended placements of 3.51 million egg-type pullet chicks for future domestic hatchery supply flocks during 2000, up 19 percent from 1999.

## Poults Placed

Turkey hatcheries placed 297 million poults in the United States during 2000. These placements were up slightly from 1999.

## Hatchery Capacity

The capacity of chicken hatcheries on January 1, 2001, up 1 percent from a year earlier.

The capacity of turkey hatcheries was 48.5 million on January 1, 2001, up 1 percent from January 1, 2000. Domestic placements of egg-type pullet chicks for future hatchery supply flocks by leading breeders totaled 243,000 during June 2001, up 1 percent from June 2000.

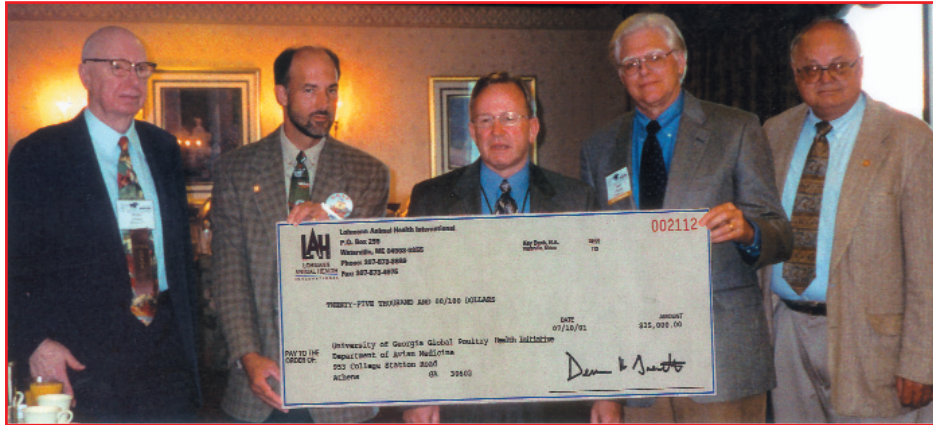
## Broiler Hatch Up 1 Percent

This June 2001 hatch of broiler-type chicks, at 757 million, was up 1 percent from June of the previous year. There were 626 million eggs in incubators on July 1, 2001, up 2 percent from a year earlier.

Leading breeders placed 6.82 million broiler-type pullet chicks for future domestic hatchery supply flocks during June 2001, down slightly from June 2000.



*Athens, Georgia* — Pharmacia Animal Health made its annual \$25,000 donation to fund a scholarship for a qualified student in the Master of Avian Medicine program at The University of Georgia's College of Veterinary Medicine. Dr. Karen Burns received this year's scholarship at a poultry seminar held at the College earlier this year. Present at the presentation were (l to r) Dr. Steve Sutherland, director, Pharmacia Regulatory Affairs; Dean Keith W. Prasse, College of Veterinary Medicine; Dr. Jean Sander, graduate coordinator, College of Veterinary Medicine; Dr. Karen Burns; Ron Bryant, vice president for sales, Pharmacia; Bob Ford, corporate accounts manager, Pharmacia; and Dr. Stan Kleven, head of Avian Medicine at the College.



*Left to Right: Dr. Hiram Lasher, Lasher Associates; Dr. Charles Hofacre, University of Georgia; Dr. Dave Zacek, Lohmann; Dr. Keith Prasse, Dean, College of Veterinary Medicine, University of Georgia; Dr. Stan Kleven, University of Georgia.*

### **LAHI Pledges \$225,000 to UGA Poultry Health Initiative**

Lohmann Animal Health International has made a five-year pledge to contribute \$225,000 to help fund the University of Georgia’s Global Avian Health Initiative, an effort dedicated to improving poultry health worldwide.

LAHI announced the pledge at a July 15 breakfast for UGA’s Masters of Avian Medicine Alumni attending the American Association of Avian Pathologists conference in Boston.

Through the initiative, UGA’s College of Veterinary Medicine is seeking a total of \$7.65 million in private and public funds to endow the Caswell S. Eidson Eminent Scholar position and to expand facilities at the Poultry Diagnostic and Research Center in Athens.

“On-going avian disease research is vitally important to the economic health and success of the poultry industry as a whole,” said LAHI President Dave Zacek. “It is a great privilege for our company to be associated with this initiative.”

A faculty member at the UGA College of Veterinary Medicine for more than 20 years, Dr. Caswell S. Eidson conducted research that led to the development and field application of a vaccine to combat Marek’s disease. He also made significant research contributions in the control of Newcastle disease, infectious bursal disease and infectious tenosynovitis.

Following Eidson’s death in 1983, Dr. Hiram Lasher of Lasher Associates, Inc. in Millsboro, Del., contributed \$375,000 to establish a fund to honor his longtime friend and colleague. That gift will be combined with contributions from companies like LAHI, as well as public monies, to fund the research position named in honor of Eidson and expand the college’s research efforts.

“I appreciate Lohmann Animal Health International’s generous pledge of support for the Department of Avian Medicine’s Global Poultry Health Initiative,” said Dr. Keith W. Prasse, dean of the UGA College of Veterinary Medicine. “For over 30 years, the Poultry Diagnostic and Research Center here at Georgia has made tremendous contributions to the success of poultry production. Commitments such as LAHI’s will certainly improve on that success.”

LAHI, based in Gainesville, Ga., markets vaccines produced under the Vineland, MBL, and Lohmann Animal Health labels. LAHI is a member of the PHW Group, which comprises 30 companies that produce avian vaccines and poultry for the global market.



# Meetings, Seminars and Conventions

## 2001 September

**Sept. 9-12: IX European Symposium on the Quality of Eggs and Egg Products & XV European Symposium on the Quality of Poultry Meat**, Contact: Dr. S. Yalcin, Secretary of WPSA Turkish Branch, Ege University, Faculty of Agriculture, Dept. of Animal Science, 35100 Izmir-Turkey.  
Phone +90 232 388 4000/1449 (ext.);  
Fax: +90 232 388 1864.

E-mail: yalcin@ziraat.ege.edu.tr

**Sept. 11-13: The Poultry Federation (Arkansas, Missouri, Oklahoma) Nutrition Conference**, Clarion Inn, Fayetteville, Ark. Details from Judy Kimbrell, The Poultry Federation, P.O. Box 1446, Little Rock, AR 72203;

Phone: 501-375-8131; Fax: 501-375-5519

**Sept. 12: Delmarva Breeder, Hatchery, Growout Conference**, Delmarva Convention Center, Delmar, MD. Contact: Bud Malone, University of Delaware. Phone: 302-856-9037

**Sept. 12-14: 2nd Poultry Genetics Symposium**, Organised by the Institute for Small Animals Research, Godollo, Hungary and WPSA Working Group 3 'Breeding and Genetics'. Contact: Dr. Hidas Andras. Institute for Small Animals Research. H-2100 Godollo, Isaszegi ut, (P.O. Box 147). Phone: +36 28 420 387; Fax: +36 28 430 184; Email: hidas@katki.hu

**Sept. 17-18: Incubation and Fertility Research Group**, (WPSA Working Group 6 (Reproduction). St. Edmund's Hall, University of Oxford, UK. Contact: Dr. Charles Deeming, Hatchery Consulting & Research, 17 Rowland Close Wallingford, Oxfordshire, OX10 8LA, UK. Phone/Fax: +44 (0) 1491 835542 or <http://193.61.15.84/ifrg/ifrg.htm> (with online form).

**Sept. 17-21: World Veterinary Poultry Association XII International Congress**, Current developments and prospects for poultry disease prevention and control, Cairo, Egypt. contact: Cairo International Conference Centre, Prof. Dr. A.A. Sami Ahmed, President, Organising Committee, PO Box 2399, Cairo, Egypt.  
Phone: +202 2442587; Fax: +202 2474955;  
E-mail: mipco@thewayout.net

**Sept. 19-20: Poultry Production and Health Seminar**, Marriott Downtown Hotel, Memphis, Tenn. Details from U.S. Poultry & Egg Association, 1530 Cooledge Road, Tucker, GA 30084-7303; Phone: 770-493-9401; Fax: 770-493-9257;

E-mail: seminar@poultryegg.org

**Sept. 25-26: Georgia Poultry Conference**, the Classic Center, Athens, GA. Contact: Georgia Poultry Federation, P.O. Box 763, Gainesville, GA 30503. Phone: 770-532-0473; or Extension Poultry Science, University of Georgia, Athens, GA 30602. Phone: 770-542-1325.

**Sept. 30-Oct. 4: 13th European Symposium on Poultry Nutrition**, Floreal Club, Koning Albertlaan 59, 8370 Blankenberge, Belgium. contact: Semico-Seminar and Congress Organisation Office, Korte Meer, 16.

## 2001 October

**Oct. 2-3: Alabama Broiler Industry Seminar**, Auburn University Hotel and Dixon Conference Center, Auburn, AL Details from AP&EA, P.O. Box 240, Montgomery, AL 36101; Phone: 334-265-2732; Fax: 334-265-0008.

**Oct. 3-5: Poultry Service Industry Workshop (PSIW)**, Annual Workshop, The Banff Centre, Banff, Alberta, Canada. Details from Sandy Clarke, PSIW, #905 O.S. Longman Building, 6909 - 116 Street, Edmonton, Alberta, Canada, TGH-4P2; Phone: 780-422-0508; Fax: 780-427-1439.

E-mail: sandra.clarke@gov.ab.ca

**Oct. 4-7: Fieravioca, 40th International Poultry Show**, Forli, Italy. Contact: Phone: +39 0543 793511; Fax: +39 0543 724488; E-mail: info@fieravicola.com; Internet: [www.fieravicola.com](http://www.fieravicola.com)

**Oct. 9-12: XVII Latin American Poultry Congress**, Guatemala City, Guatemala. Contact: Anavi, Avenida De La Reforma 8-60, Zona 9, Edificio Galerias Reforma, Torre II, 9º Nivel, Oficina 904, Guatemala City, Guatemala. Phone: (502) 331 1381; Fax: (502) 339 2338; E-mail: latino@terra.com.gt; Internet: [www.XVIII-latinoavicola.org.gt](http://www.XVIII-latinoavicola.org.gt)

**Oct. 12-13: Poultry Protein & Fat Seminar**, Radisson Hotel, Memphis, Tenn. Contact: U.S. Poultry & Egg Association, 1530 Cooledge Road, Tucker, GA 30084-7303. Phone: 770-493-9401.

**Oct. 17-19: National Meeting on Poultry Health and Processing**, Clarion Resort Fontainebleau, Ocean City, Maryland. Contact: Karen Adams at [adams@dpickicken.com](mailto:adams@dpickicken.com) or Fax: 302-856-1845.

## 2001 November

**Nov. 1-3: Effective Broiler Breeder Management**, Holiday Inn, Utrecht, Netherlands: contact: Elaine Robson, Positive Action Conferences.

Phone: +44(0)1377 256316;

Fax: +44(0)1377 254663

E-mail: [conf@positiveaction.co.uk](mailto:conf@positiveaction.co.uk)

**Nov. 5: Salmonella 2001 Conference**, Holiday Inn, Utrecht, Netherlands. Contact: Elaine Robson, Positive Action Conferences. Phone: +44(0)1377 245663;

Fax: +44(0)1377 254663;

Email: [conf@positiveaction.co.uk](mailto:conf@positiveaction.co.uk)

**Nov. 6-9: VIV Europe**, 2001, Royal Dutch Jaarbeurs Exhibition Center, Utrecht. contact: RoyalDutch Jaarbeurs, P.O. box 8500, NL 3503 RM, Utrecht, The Netherlands, Phone: + 31 (0) 30 295 5662; Fax: + 31 (0) 30 295 57 09.

## 2002 January

**Jan. 14-15: International Poultry Scientific Forum**, Georgia World Congress Centre, Atlanta, Georgia, USA. Contact: Yvonne Vizzier Thaxton, Executive Secretary, SPSS, Mississippi State University, Dept. of Poultry Science, Box 9665, Mississippi State, MS 39762. E-mail: [spss@technologist.com](mailto:spss@technologist.com)

# Meetings, Seminars and Conventions

**Jan. 16-18: International Poultry Exposition Atlanta 2002**, Georgia World Congress Centre, Atlanta, Georgia, USA. Contact: US Poultry & Egg Association, 1530 Cooledge Road, Tucker, Georgia 30084-7804, USA. Phone: +1 770-493-9401; Fax: +1 770-493-9257; E-mail: expogeneralinfo@poultryegg.org; Internet: www.poultryegg.org

## 2002 March

**March 21-23: VIV Canada 2002**, Toronto, Canada. Contact: Royal Dutch Jaarbeurs, PO Box 8500, 3503 RM Utrecht, the Netherlands. Phone: +31 30 295 56 62; Fax: +31 295 57 09. E-mail: canada@jaarbeursutrecht.nl. Canadian Swine Exporters Association, PO Box 150, Hickson, Ontario, Noj iLo, Canada. Phone: +1 519 462 2929; Fax: +1 519 462 2417. E-mail: csea@execulink.com

## 2002 April

**April 14-17: 5th International Symposium on Avian Influenza**, Georgia, USA. Contact: David E, Swayne, 934 College Station Road, Athens, Georgia 30605 USA. FAX: +1-706-546-3161. E-mail: AISymposium@seprl.usda.gov Website: <http://seprl.ars.usda.gov/avian.influenza.symposium.htm>

**April 24-26: VIV China 2002**, China International Exhibition Centre, Beijing, P.R. China. Contact: Royal Dutch Jaarbeurs, P.O. Box 8500, 3503 RM Utrecht, the Netherlands. Phone: +31 30 295 5662; Fax: +31 30 295 5709; E-mail: viv.china@jaarbeursutrecht.nl

## 2002 May

**May 1-4: Western Poultry Disease Conference and Asociacion Nacional de Especialistas en Ciencias Avicolas**, Marriott Casamagna Resort, Puerto Vallarta, Mexico. Contact: Dr. R.P. Chin, 2789 S. Orange Ave., Fresco, CA 93725, USA. E-mail: rpchin@ucdavis.edu

**May 27-31: X International Seminar in Avian Pathology and Poultry Production (In Spanish)**, Georgia, USA. Contact: Dr. Pedro Villegas, Department of Avian Medicine, The University of Georgia, Athens, GA 30602-4875, USA. Fax: +1-706-542-5630; E-mail: sem2002@arches.uga.edu

## 2002 August

**Aug 19-23: The 7th World Congress of Genetics Applied to Livestock Production**, Le Corum Conference Centre of Montpellier, France. Contact: <http://wcgalp.toulouse.inra.fr>

## 2002 September

**Sept. 6-10: 11th European Poultry Conference**, Bremen, Germany. Contact: 11th European Poultry Conference, 2002, Congress Partner, Birkenstr 17, D-28195 Bremen, Germany. Phone: +49 421 303130; Fax: +49 421 303133; E-mail: Bremen@cpb.de

## 2002 October

**Oct. 6-10: 7th WPSA Asian Pacific Federation Conference**, Conrad Jupiter's Hotel, Gold coast, Queensland, Australia. In conjunction with 12th Australian Poultry & Feed Convention. Hotel Conrad, Jupiters Casino, Gold Coast, Queensland, Australia. Contact: APFC 2002 Conference Managers, GPO Box 128, Sydney, NSW 2001, Australia. Phone: +61 2 9262 2277; Fax: +61 2 9262 3135; E-mail: apfc2002@tourhosts.com.au; Internet: <http://www/tourhosts.com.au/apfc2002>

**Oct. 6-11: 3rd International Workshop on the Molecular Pathogenesis of Marek's Disease and the Avian Immunology Research Group Meeting**, Dead Sea, Israel. Contact: MAREKS-AIRG at Target Tours, P.O. Box 29041, Tel Aviv 61290, Israel. Phone: +972 3 5175150; Fax: +972 3 5175155; E-mail: mareks-airg@targetconf.com

**Oct. 17-19: National Meeting on Poultry Health & Processing**, Sheraton Fountainbleau Hotel, Ocean City, Maryland, USA. Contact: Sharon Webb, Delmarva Poultry Industry, Inc., RD 6, Box 47, Georgetown, DE 19947-9575, USA. Fax: +1 302-856-1845

## 2003 July

**July 19-23: XIII Congress of the World Veterinary Poultry Association**, Denver, CO, USA. Contact: Details are not currently available but will eventually be posted on the web site of the American Association of Avian Pathologists.