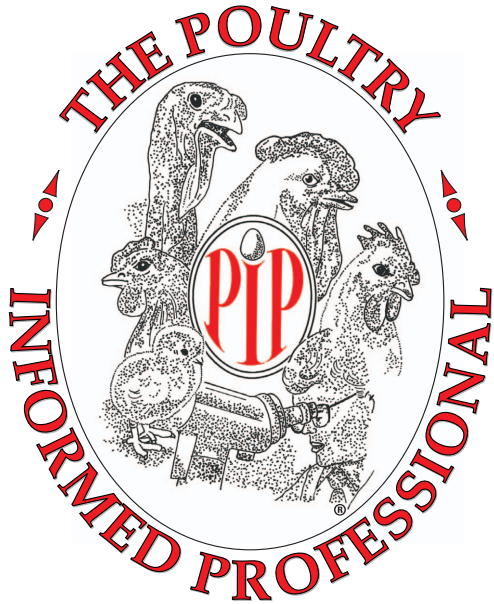


The Poultry Informed Professional is published with support from The Primary Breeders Veterinary Association by the Department of Population Health of the University of Georgia College of Veterinary Medicine. © 1999 Board of Regents of the University System of Georgia except for: United States Government Publications: "Livestock, Dairy and Poultry Situation and Outlook" (Economic Research Service, U.S.D.A.); "Broiler Hatchery" and "Chicken and Eggs" (National Agricultural Statistics Service, Agricultural Statistics Board, U.S.D.A.) © 2007 Primary Breeders Veterinary Association. Articles may be reprinted with permission. For information or permission to reprint, contact Diane Baird, (706) 542-1904.

March  
April 2007

Issue 92



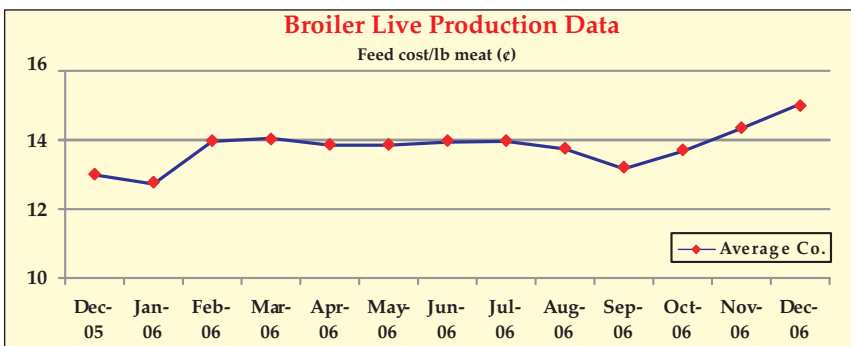
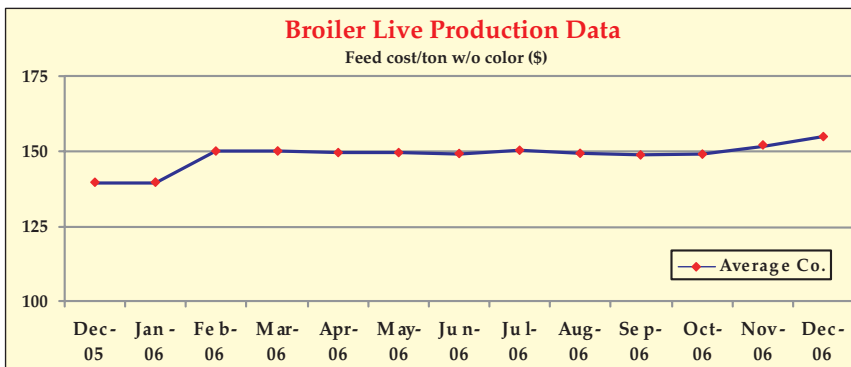
# The Poultry Informed Professional®

Published by the Department  
of Population Health, University of Georgia  
Editor: Dr. Stephen Collett, Assistant Professor  
Co-Editor: Dr. Pedro Villegas, Professor  
Department of Population Health

Phone (706) 542-1904 Fax (706) 542-5630  
e-mail: dbaird@vet.uga.edu

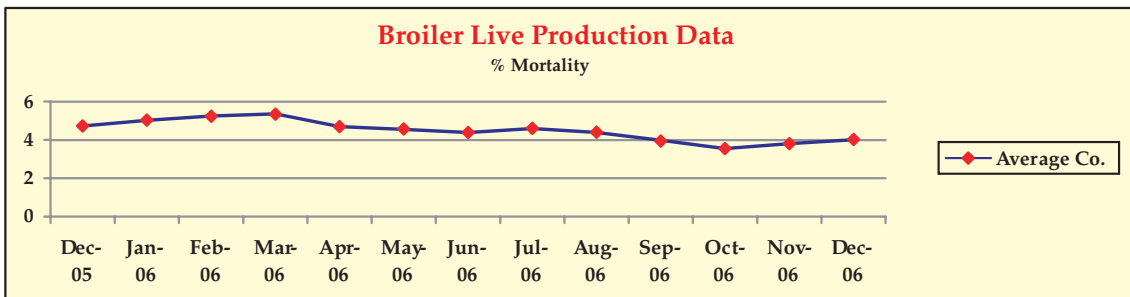
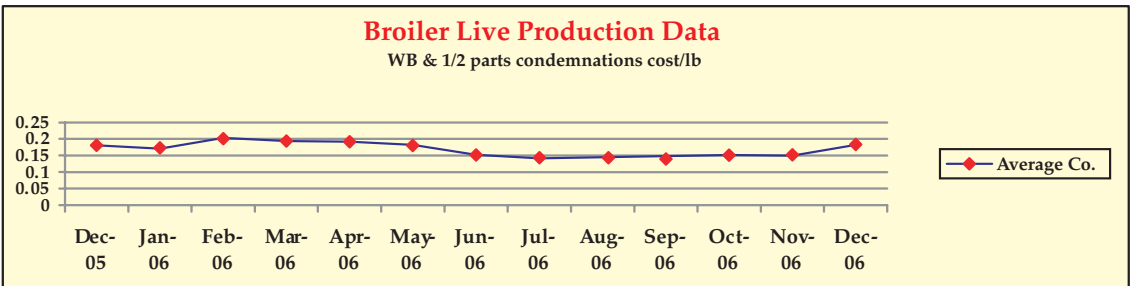
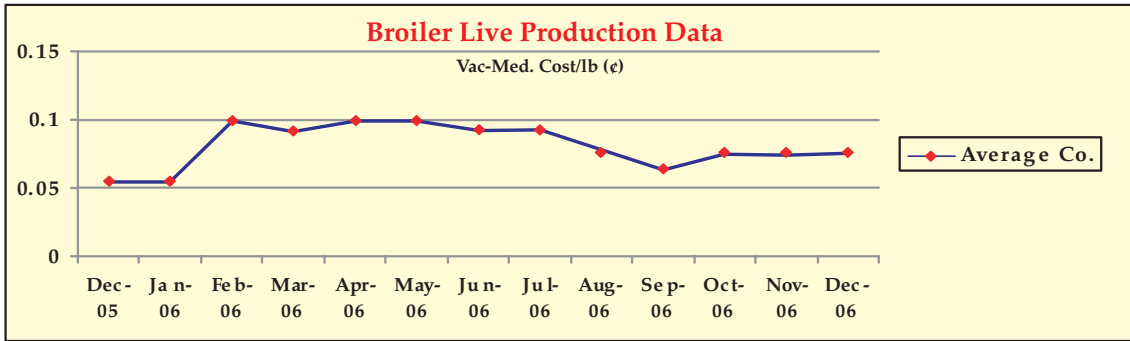
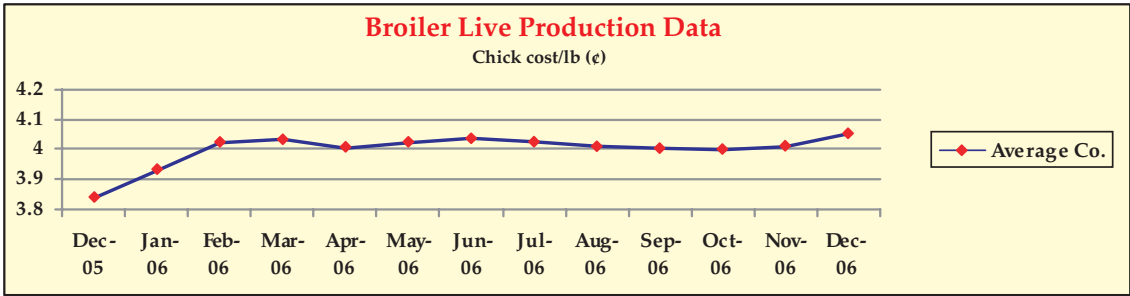
## YEAR IN REVIEW December 2005 — December 2006

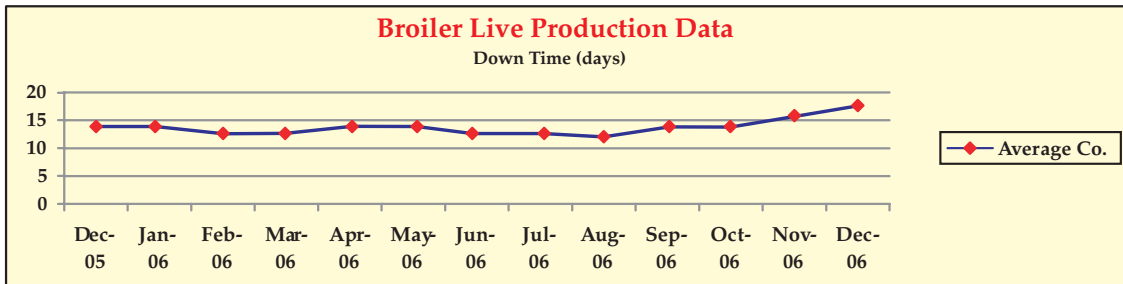
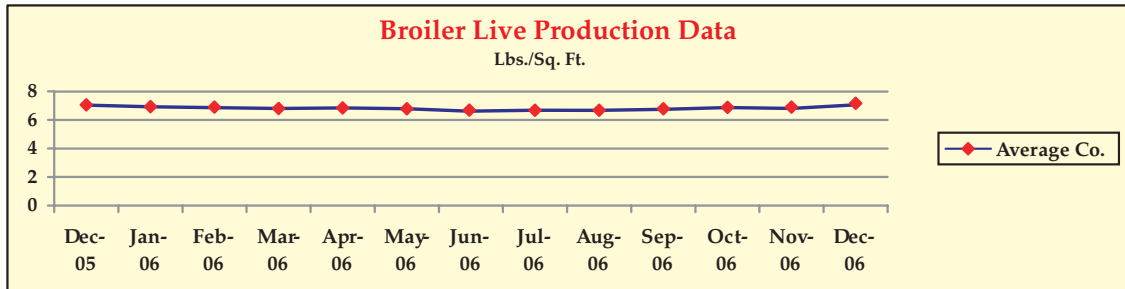
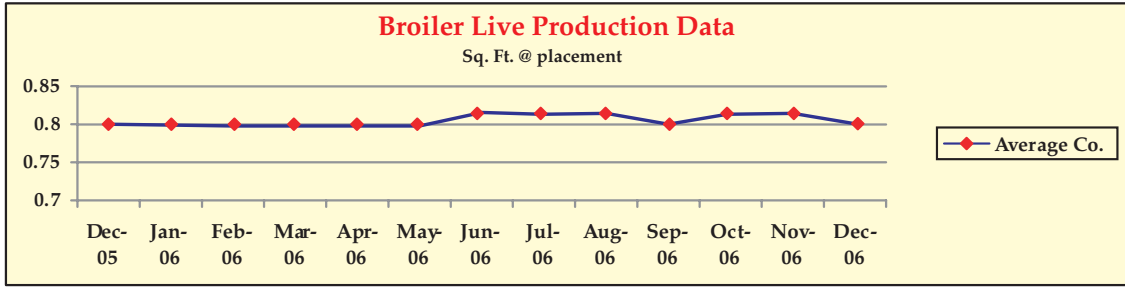
We are pleased to present a summary of the 2006 Broiler Performance Data by Region and Company.

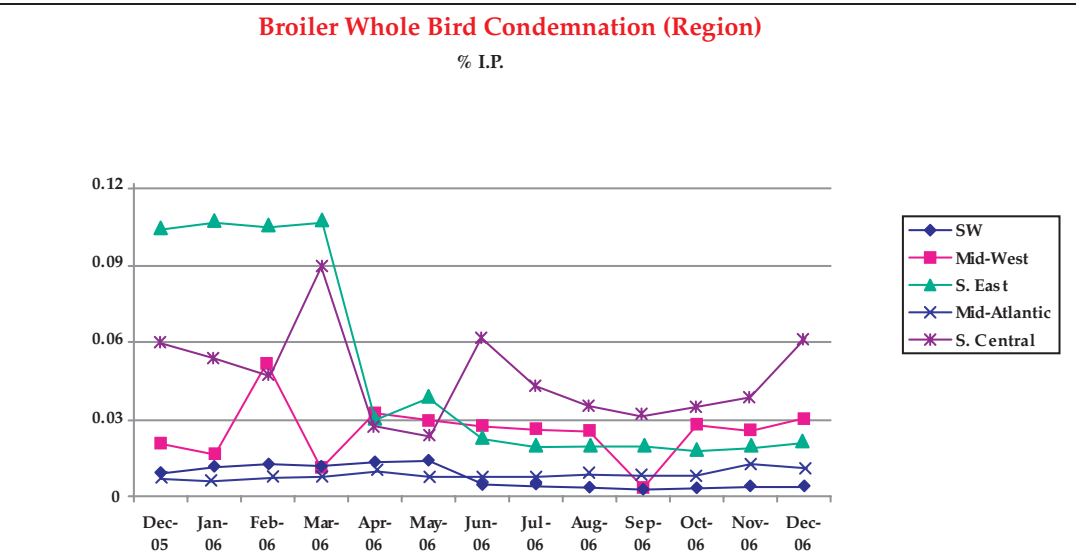
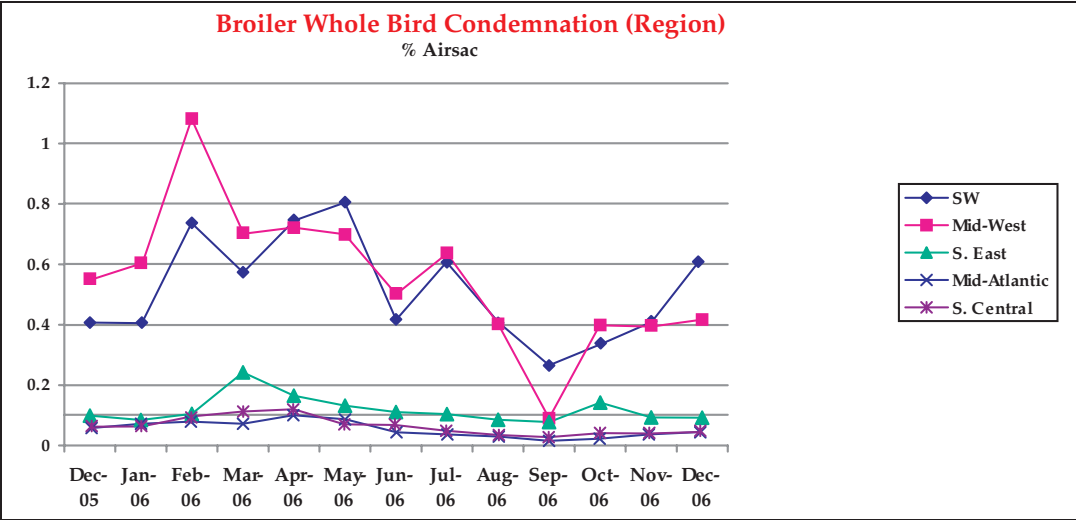
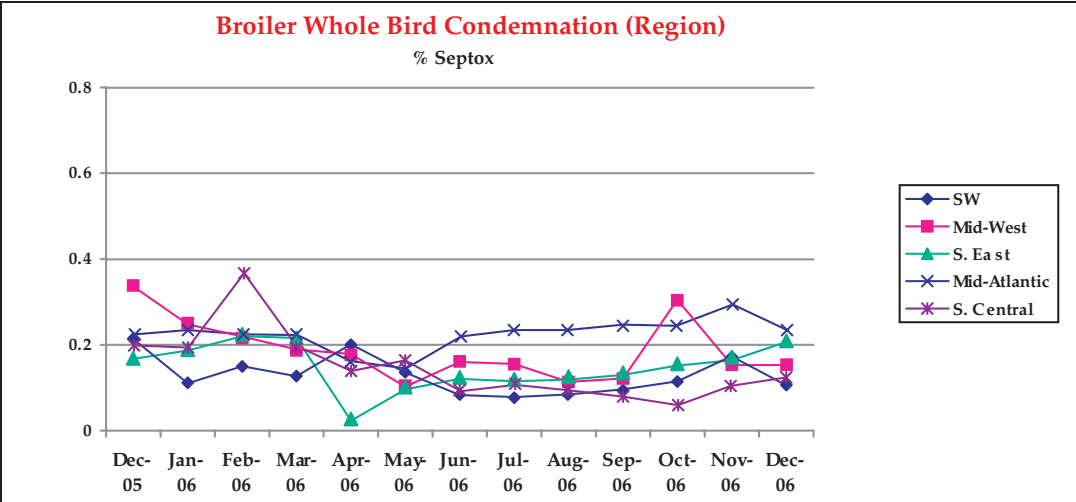


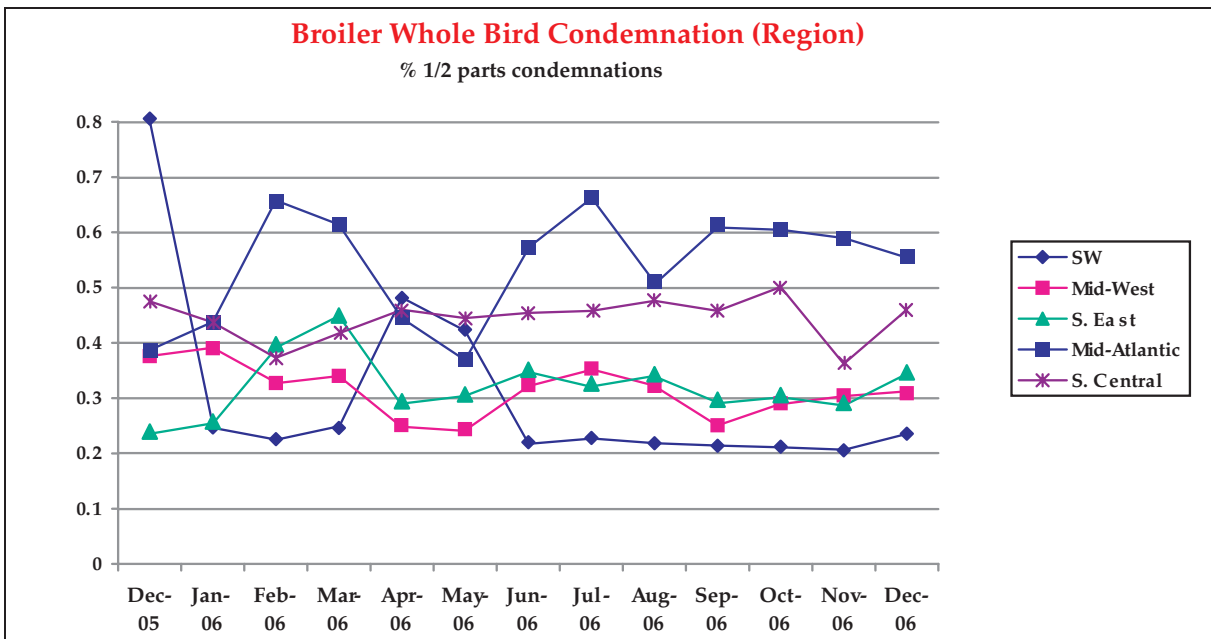
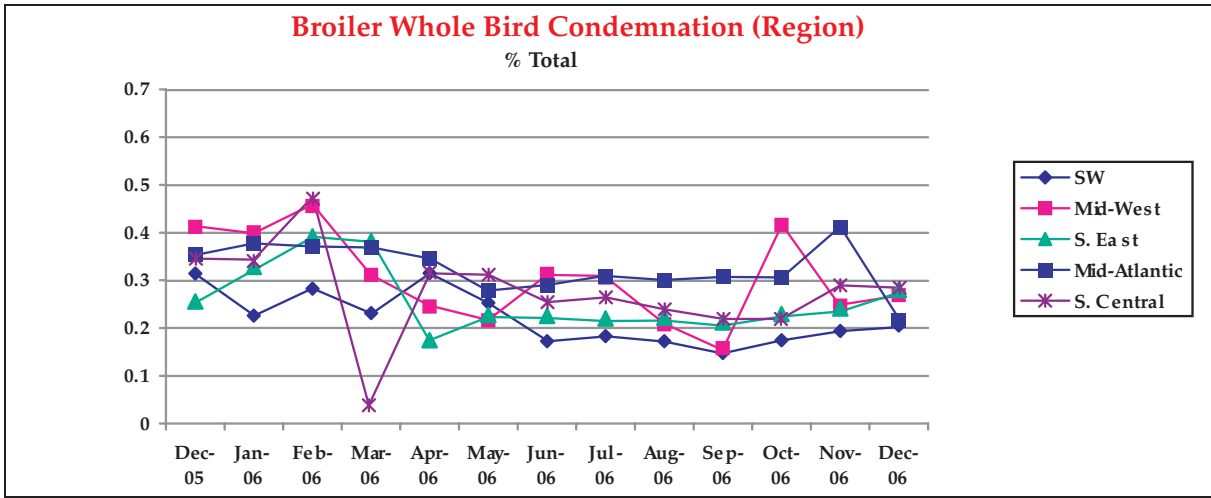
### Contents

- Year in Review... Pages 1-5
- Infectious Bronchitis... Page 6-8
- The World Situation Page 6-8
- Broiler Performance Data (Region) Page 9
- Broiler Performance Data (Company) Page 9
- Broiler Whole Bird Condemnations (Region) Page 9
- Broiler Whole Bird Condemnations (Company) Page 9
- Excerpts.. "Broiler Hatchery" "Chicken and Eggs" and "Turkey Hatchery" ... Page 10-11
- Meetings, Seminars and Conventions Pages 12-13
- February 2007 Charts Page 9









# Infectious Bronchitis - The World Situation

Mark W. Jackwood

University of Georgia • Department of Population Health

College of Veterinary Medicine • Athens, GA 30602

mjackwoo@uga.edu

## Introduction

Avian infectious bronchitis is a highly contagious upper-respiratory disease in chickens. It is world wide in distribution and costs the poultry industry billions of dollars annually. Currently, the best strategy for control of this disease is the use of modified live infectious bronchitis virus (IBV) vaccines. But, infectious bronchitis is extremely difficult to control because different types (serotypes) of the virus that causes the disease do not cross-protect. Different types of IBV include multiple serotypes and variants of the virus, which arise due to mutations and recombination events when the virus copies its genome. Compounding this situation is the ability of IBV, which is a coronavirus, to rapidly change and adapt to the host. Thus, it is extremely important not only to rapidly identify the IBV type causing disease, but also to choose an appropriate vaccine serotype.

Chickens and pheasants are the only species that have been shown to be naturally infected by IBV but the virus may extend to hosts beyond those two species (7). The disease is generally a mild upper-respiratory tract disease characterized by excess mucus in the sinuses, nares, and trachea. Sneezing, coughing, watery eyes, and tracheal rales are common clinical signs. The virus can affect the reproductive tract in laying hens, producing misshapen eggs, and a drop in egg quality and production, and some strains of the virus can also affect the kidneys causing an interstitial nephritis. This virus is highly infectious with morbidity approaching 100%, but mortality, which is generally low, can vary depending the tissue tropism of the virus and if secondary pathogens like bacteria or other respiratory viruses are involved in the disease.

Infectious bronchitis virus, a coronavirus, has the largest single stranded RNA genome known (28-32Kb). Four structural proteins (spike, envelope, membrane, and nucleocapsid) make up the enveloped virus particle. The spike glycoprotein forms club like projections on the surface of the virus and is extremely important because it mediates attachment to the host cell, and induces serotype specific and virus-neutralizing antibodies. The membrane glycoprotein is an integral membrane protein and is thought to stabilize the virus particle by interacting with the viral RNA. The envelope protein is involved in assembly of the virus and the nucleocapsid protein is closely associated with the viral RNA and thought to protect it during virus uncoating and replication.

The virus replicates in cells of the upper-respiratory

tract using a viral RNA-dependent-RNA-polymerase, which functions to synthesize subgenomic mRNAs that code for each of the structural proteins as well as other regulatory proteins. That viral polymerase does not have proofreading activity, which means if it makes a mistake when replicating the viral genome it cannot go back and fix it. Those mutations, if not lethal, are maintained in the virus population. In addition, when more than one type of IBV infect the same cell, the polymerase can jump from one viral RNA template to another viral RNA template within the cell. This leads to a recombinant virus that may result in a variant virus or new serotype.

It is important to identify the serotype of IBV causing disease so appropriate vaccines can be selected. The gold standard for typing IBV isolates is the virus-neutralization test in embryonating eggs. Generally a two-way neutralization test is preformed first with known antisera and the unknown virus and then with known viruses and antisera prepared against the unknown virus. The titers are used to calculate a relatedness value using the Archetti and Horsfall formula (3). This typing method is labor intensive and time consuming, but ought to be conducted when new variant viruses are detected.

Around 1993, a new molecular typing method for IBV was developed (12, 14, 15). That method utilized the reverse transcriptase-polymerase chain reaction (RT-PCR) test and restriction fragment length polymorphism (RFLP) to identify the molecular type of the virus. It was quickly found that molecular type correlated with serotype of the virus, which led to the identification of a tremendous number of viruses isolated from the field. Most IBV typing is now being done by sequence analysis of the spike gene.

## IBV- The World Situation

In a study that examined data from over 11 years of molecular typing IBV isolates at the Poultry Diagnostic and Research Center (PDRC, University of Georgia, Athens, GA) we found that the virus continues to evolve in commercial chickens (13). The most frequently identified IBV types in the USA are Arkansas (42.4%), Connecticut (13.4%), and, Massachusetts (10.2%). Those virus types are also the commonly used vaccine types. The viruses were isolated from clinically ill birds, but it was not determined which of those viruses were field viruses or vaccines. In North America, variant IBV types have emerged in the years 1993 (93GAV strain), 1998 (GA98 strain), and 1999 (CAL99 strain). The GA98 outbreak in Georgia was so severe that it led to a new commercial vaccine for that virus. Although the Arkansas

type viruses are most frequently isolated in the USA, the Delaware viruses and GA98 viruses continue to be a problem in the Southeast and the Eastern Shore. In addition, Arkansas-like viruses, first observed in 1995, continue to be detected, and the California viruses, which are endemic only in California, continue to change indicating that those viruses are undergoing genetic drift. This is significant because new variant viruses capable of breaking through immunity can arise when sufficient genetic drift has occurred. The California viruses fall into 3 genetic groups; the early viruses isolated around 1991 and represented by CAV/CV56b/91, the viruses isolated in 1999 and designated CAL99, and recent variant viruses isolated in 2004 and 2005 which are still being characterized (1, 19). Variant viruses from abroad do not appear to be a problem in the USA (5).

In Mexico, it appears that unique viruses (MX97-8123, MX97-8147 and 2 variants) are endemic only in Mexico (10). Those viruses have been shown to be unique and not related to any of the vaccines available in Mexico or the USA. How rapidly those viruses are changing is not clear.

Variant viruses have also been identified in Venezuela (5), Colombia (2), and Peru (Personal communication Dr. Hung, Universidad Peruana Cayetano Heredia, San Martin de Porres, Lima Peru). In Venezuela one unique virus was identified by RFLP analysis, but others probably exist. The viruses from Colombia fall into 4 unique genetic groups that appear to be endemic only in that country. Massachusetts and Connecticut type viruses were also identified in Colombia. The variant viruses identified in Peru are not related to the Massachusetts serotype.

In Europe, a number of variant viruses have been identified, the most recent virus is the 4/91 (793B and CR88 serotypes) strain of IBV, which appears to be the most significant variant virus in Europe (8). The 624/I variant IBV strain was been reported in Italy (6).

In China and the Far East, a number of variant IBV isolates have been reported (17) since the outbreak of SARS-CoV (9). Those viruses were mainly nephropathogenic and include 7 different genetic types. One of those types (genotype III) resembles viruses isolated in Korea, another type (genotype V) represents the Massachusetts serotype whereas the other types are genetically unique. The 4/91 isolate has also been reported in Iran and Saudi Arabia (8), and 2 unique variant viruses have been identified in Israel (5). Five genetically different variant IBV types have been identified in Korea, the most common isolate being the KM 91 strain (16). Many of these viruses including KM 91 are nephropathogenic causing as much as 50% mortality. A novel nephropathogenic variant of IBV distantly related to the 6/82 European strain was reported recently in India (4). In Japan, 5 genetic groups were identified with 3 of those groups (JP-I, JP-II, and JP-

III) being associated with recent outbreaks. They are not genetically or serologically related to European or USA viruses (18). Furthermore, JP-I appears to be endemic only in Japan where as viruses from groups JP-II and JP-III are also found in China and Taiwan.

Historically strains in Australia have evolved independently from European and USA strains and many are known to be nephropathogenic (Australia T strain). Emerging strains of IBV continue to occur in Australia (11). Generally 3 subgroups of IBV types are recognized with the most recent subgroup 3 being represented by chicken/Australia/N2/04, which is closely related with the D1466 strain from the Netherlands and the DE072 viruses from the USA.

## SUMMARY

Intensive animal agriculture practices, human population growth, and cultural habits and customs have put humans in close contact with animal reservoirs of viruses that have the potential to cause zoonotic diseases. For this reason and to quickly identify and control newly emerging variant types of IBV it is extremely important to continually monitor IBV variant viruses in commercial poultry.

Infectious bronchitis virus can cause respiratory, reproductive, and in some cases nephropathogenic diseases in chickens. Coronaviruses are worldwide in distribution, highly infectious, and extremely difficult to control because they have extensive genetic diversity, a short generation time and a high mutation rate. Consequently, it is not surprising that host switching and zoonotic diseases have occurred among coronaviruses. As an example, the abrupt emergence of the SARS-CoV in southern China (9) in 2002 quickly spread to 27 countries (including the United States), and resulted in 8096 cases and 744 deaths ([http://www.who.int/csr/sars/country/table2004\\_04\\_21/en/index.html](http://www.who.int/csr/sars/country/table2004_04_21/en/index.html)). That pandemic had a severe impact on public health, travel, and economic trade.

## REFERENCES

1. Alvarado, I. R., P. Villegas, J. El-Attrache and T. P. Brown. Evaluation of the protection conferred by commercial vaccines against the California 99 isolate of infectious bronchitis virus. *Avian Dis* 47:1298-1304. 2003.
2. Alvarado, I. R., P. Villegas, N. Mossos and M. W. Jackwood. Molecular characterization of avian infectious bronchitis virus strains isolated in Colombia during 2003. *Avian Dis* 49:494-499. 2005.
3. Archetti, I. and F. L. Horsfall. Persistent antigenic variation of influenza A viruses after incomplete neutralization in vivo with heterologous immune serum. *J. Exp. Med.* 92:441-462. 1950.

4. Bayry, J., M. S. Goudar, P. K. Nighot, S. G. Kshirsagar, B. S. Ladman, J. Gelb, Jr., G. R. Ghalsasi and G. N. Kolte. Emergence of a nephropathogenic avian infectious bronchitis virus with a novel genotype in india. *J Clin Microbiol* 43:916-918. 2005.
5. Callison, S. A., M. W. Jackwood and D. A. Hilt. Molecular characterization of infectious bronchitis virus isolates foreign to the united states and comparison with united states isolates. *Avian Dis* 45:492-499. 2001.
6. Capua, I., R. E. Gough, M. Mancini, C. Casaccia and C. Weiss. A 'novel' infectious bronchitis strain infecting broiler chickens in italy. *Zentralbl Veterinarmed B* 41:83-89. 1994.
7. Cavanagh, D. Coronaviruses in poultry and other birds. *Avian Pathol* 34:439-448. 2005.
8. Cavanagh, D., J. P. Picault, R. Gough, M. Hess, K. Mawditt and P. Britton. Variation in the spike protein of the 793/b type of infectious bronchitis virus, in the field and during alternate passage in chickens and embryonated eggs. *Avian Pathol* 34:20-25. 2005.
9. Chinese, S. M. E. C. Molecular evolution of the sars coronavirus during the course of the sars epidemic in china. *Science* 303:1666-1669. 2004.
10. Escorcía, M., M. W. Jackwood, B. Lucio, V. M. Petrone, C. Lopez, T. Fehervari and G. Tellez. Characterization of mexican strains of avian infectious bronchitis isolated during 1997. *Avian Dis* 44:944-947. 2000.
11. Ignjatovic, J., G. Gould and S. Sapats. Isolation of a variant infectious bronchitis virus in australia that further illustrates diversity among emerging strains. *Arch Virol*. 2006.
12. Jackwood, M. W., N. M. Yousef and D. A. Hilt. Further development and use of a molecular serotype identification test for infectious bronchitis virus. *Avian Dis* 41:105-110. 1997.
13. Jackwood, M. W., D. A. Hilt, C-W. Lee, H. M. Kwon, S. A. Callison, K. M. Moore, H. Moscoso, H. Sellers and S. Thayer. Data from 11 years of molecular typing infectious bronchitis virus field isolates. *Avian Dis* 49:614-618. 2005.
14. Kwon, H. M., M. W. Jackwood and J. Gelb. Differentiation of infectious-bronchitis virus serotypes using polymerase chain-reaction and restriction-fragment-length-polymorphism analysis. *Avian Diseases* 37:194-202. 1993.
15. Lee, C. W., D. A. Hilt and M. W. Jackwood. Redesign of primer and application of the reverse transcriptase-polymerase chain reaction and restriction fragment length polymorphism test to the de072 strain of infectious bronchitis virus. *Avian Dis* 44:650-654. 2000.
16. Lee, S. K., H. W. Sung and H. M. Kwon. S1 glycoprotein gene analysis of infectious bronchitis viruses isolated in korea. *Arch Virol* 149:481-494. 2004.
17. Liu, S. W., Q. X. Zhang, J. D. Chen, Z. X. Han, X. Liu, L. Feng, Y. H. Shao, J. G. Rong, X. G. Kong and G. Z. Tong. Genetic diversity of avian infectious bronchitis coronavirus strains isolated in china between 1995 and 2004. *Arch Virol*. 2006.
18. Mase, M., K. Tsukamoto, K. Imai and S. Yamaguchi. Phylogenetic analysis of avian infectious bronchitis virus strains isolated in japan. *Arch Virol* 149:2069-2078. 2004.
19. Schikora, B. M., L. M. Shih and S. K. Hietala. Genetic diversity of avian infectious bronchitis virus california variants isolated between 1988 and 2001 based on the s1 subunit of the spike glycoprotein. *Arch Virol* 148:115-136. 2003.

**Article published in:**

**Proceedings of the II International Poultry Forum organized by AnimalWorld. AveExpo, Curitiba, Brazil. March 7 – 9, 2007.**

## Current Month Charts

**Broiler Performance Data (Region) — Live Production Cost**

	SW	Midwest	Southeast	Mid-Atlantic	S-Central
Feed cost/ton w/o color (\$)	191.34	188.32	195.83	187.86	193.81
Feed cost/lb meat (¢)	17.98	18.41	19.20	16.71	18.85
Days to 4.6 lbs	42	39	43	40	40
Chick cost/lb (¢)	4.65	3.36	4.25	4.67	3.26
Vac-Med cost/lb (¢)	0.13	0.06	0.18	0.03	0.08
WB & 1/2 parts condemn. cost/lb	0.32	0.19	0.16	0.18	0.15
% mortality	5.70	4.39	8.62	4.64	4.86
Sq. Ft. @ placement	0.83	1.01	0.82	0.78	0.86
Lbs./Sq. Ft.	6.58	7.50	7.37	6.75	8.13
Down time (days)	17	18	15	13	12

Data for week ending March 17, 2007

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

	Average Co.
Feed cost/ton w/o color (\$)	190.64
Feed cost/lb meat (¢)	16.72
Days to 4.6 lbs	41
Chick cost/lb (¢)	3.91
Vac-Med cost/lb (¢)	0.11
WB & 1/2 parts condemn. cost/lb	0.22
% mortality	5.09
Sq. Ft. @ placement	0.90
Lbs./Sq. Ft.	7.21
Down time (days)	15

Data for week ending March 17, 2007

**Broiler Whole Bird Condemnation (Region)**

	SW	Mid-West	S. East	Mid-Atlantic	S. Central
% Septox	0.260	0.208	0.142	0.210	0.154
% Airsac	0.533	0.064	0.044	0.044	0.066
% I.P.	0.028	0.010	0.011	0.006	0.031
% Leukosis	0.001	0.003	0.001	0.000	0.000
% Bruise	0.003	0.002	0.001	0.001	0.003
% Other	0.006	0.006	0.002	0.004	0.008
% Total	0.831	0.293	0.200	0.265	0.261
% 1/2 parts condemnations	0.186	0.372	0.311	0.527	0.246

Data for week ending March 17, 2007

**Broiler Whole Bird Condemnation (Company)**

	Average Co.	Top 25%	Top 5 Co.'s
% Septox	0.217	0.189	0.148
% Airsac	0.161	0.176	0.279
% I.P.	0.021	0.014	0.013
% Leukosis	0.002	0.000	0.000
% Bruise	0.002	0.002	0.001
% Other	0.008	0.005	0.001
% Total	0.410	0.386	0.443
% 1/2 parts condemnations	0.351	0.515	0.243

Data for week ending March 17, 2007

## Previous Month Charts

**Broiler Performance Data (Region) — Live Production Cost**

	SW	Midwest	Southeast	Mid-Atlantic	S-Central
Feed cost/ton w/o color (\$)	189.31	189.07	194.75	180.87	192.25
Feed cost/lb meat (¢)	17.74	18.19	18.19	16.09	18.56
Days to 4.6 lbs	18	19	16	14	14
Chick cost/lb (¢)	4.72	3.69	4.20	4.59	3.91
Vac-Med cost/lb (¢)	0.10	0.10	0.12	0.08	0.09
WB & 1/2 parts condemn. cost/lb	0.22	0.23	0.22	0.20	0.20
% mortality	5.24	4.02	5.76	4.04	4.14
Sq. Ft. @ placement	0.79	0.93	0.78	0.78	0.83
Lbs./Sq. Ft.	6.60	7.23	7.29	6.56	7.56
Down time (days)	18	19	16	14	14

Data for week ending February 24, 2007

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

	Average Co.
Feed cost/ton w/o color (\$)	190.77
Feed cost/lb meat (¢)	17.97
Days to 4.6 lbs	42
Chick cost/lb (¢)	4.22
Vac-Med cost/lb (¢)	0.11
WB & 1/2 parts condemn. cost/lb	0.24
% mortality	4.75
Sq. Ft. @ placement	0.88
Lbs./Sq. Ft.	6.98
Down time (days)	16

Data for week ending February 24, 2007

**Broiler Whole Bird Condemnation (Region)**

	SW	Mid-West	S. East	Mid-Atlantic	S. Central
% Septox	0.242	0.220	0.241	0.285	0.170
% Airsac	0.220	0.110	0.070	0.043	0.105
% I.P.	0.023	0.068	0.011	0.007	0.060
% Leukosis	0.001	0.007	0.001	0.000	0.000
% Bruise	0.003	0.004	0.003	0.001	0.001
% Other	0.010	0.013	0.009	0.006	0.014
% Total	0.499	0.411	0.335	0.291	0.356
% 1/2 parts condemnations	0.219	0.359	0.379	0.638	0.279

Data for week ending February 24, 2007

**Broiler Whole Bird Condemnation (Company)**

	Average Co.	Top 25%	Top 5 Co.'s
% Septox	0.240	0.205	0.236
% Airsac	0.125	0.147	0.038
% I.P.	0.042	0.066	0.013
% Leukosis	0.002	0.001	0.001
% Bruise	0.003	0.005	0.001
% Other	0.012	0.013	0.004
% Total	0.425	0.438	0.292
% 1/2 parts condemnations	0.361	0.342	0.443

Data for week ending February 24, 2007

## 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 Outlook"

### **Broiler Eggs Set in 19 Selected States Up 1 Percent**

According to the latest National Agricultural Statistics Service (NASS) reports, commercial hatcheries in the 19-State weekly program set 215 million eggs in incubators during the week ending March 31, 2007. This was up 1 percent from the eggs set the corresponding week a year earlier. Average hatchability for chicks hatched during the week was 83 percent. Average hatchability is calculated by dividing chicks hatched during the week by eggs set three weeks earlier.

### **Broiler Chicks Placed Down 1 Percent**

Broiler growers in the 19-State weekly program placed 176 million chicks for meat production during the week ending March 31, 2007. Placements were down 1 percent from the comparable week a year earlier. Cumulative placements from December 31, 2006 through March 31, 2007 were 2.25 billion, down 1 percent from the same period a year earlier.

### **February Egg Production Down 1 Percent**

U.S. egg production totaled 6.91 billion during February 2007, down 1 percent from last year. Production included 5.92 billion table eggs, and 998 million hatching eggs, of which 937 million were broiler-type and 61 million were egg-type. The total number of layers during February 2007 averaged 347 million, down 1 percent from last year. February egg production per 100 layers was 1,992 eggs, down slightly from February 2006.

All layers in the U.S. on March 1, 2007 totaled 347 million, down 1 percent from last year. The 347 million layers consisted of 288 million layers producing table or market type eggs, 56.5 million layers producing broiler-type hatching eggs, and 2.82 million layers producing egg-type hatching eggs. Rate of lay per day on March 1, 2007, averaged 71.6 eggs per 100 layers, unchanged from March 1, 2006.

### **Egg-Type Chicks Hatched Up 9 Percent**

Egg-type chicks hatched during February 2007 totaled 36.8 million, up 9 percent from February 2006. Eggs in incubators totaled 38.5 million on March 1, 2007, up 5 percent from a year ago.

Domestic placements of egg-type pullet chicks for future hatchery supply flocks by leading breeders totaled 166,000 during February 2007, down 15 percent from February 2006.

### **Broiler-Type Chicks Hatched Down 1 Percent**

Broiler-type chicks hatched during February 2007 totaled 724 million, down 1 percent from February 2006. Eggs in incubators totaled 664 million on March 1, 2007, down slightly from a year earlier.

Leading breeders placed 7.07 million broiler-type pullet chicks for future domestic hatchery supply flocks during February 2007, down 7 percent from February 2006.

### **Broiler Breeder Placement Down 4 Percent**

Broiler-type chicks hatched during February 2007 totaled 724 million, down 1 percent from February 2006. Eggs in incubators totaled 664 million on March 1, 2007, down slightly from a year earlier.

Leading breeders placed 7.07 million broiler-type pullet chicks for future domestic hatchery supply flocks during February 2007, down 7 percent from February 2006.

### **Turkey Eggs in Incubators on March 1 Up 4 Percent from Last Year**

Turkey eggs in incubators on March 1, 2007, in the United States totaled 31.2 million, up 4 percent from March 1, 2006. Eggs in incubators were down slightly from the February 1, 2007 total of 31.3 million eggs. Regional changes from the previous year were: East North Central up 5 percent, West North Central up 6 percent, North and South Atlantic up 3 percent, and South Central and West up 3 percent.

### **Poults Placed During February Up 3 Percent from Last Year**

The 24.0 million poults placed during February 2007 in the United States were up 3 percent from the number placed during the same month a year earlier. Placements were down 6 percent from the January 2007 total of 25.6 million. Regional changes from the previous year were: East North Central up 4 percent, West North Central up 6 percent, North and South Atlantic down 3 percent, and South Central and West up 7 percent.

### **Broiler Production Down in January, 2007 Estimate Revised Downward**

Broiler meat production for January 2007 was reported at 3.01 billion pounds, down 1.3 percent from the previous year. The major source of the decline was falling meat yields per bird, down 1.8 percent from the previous year, as the total number of birds slaughtered was up slightly from January 2006 to 749 million. The total liveweight of broilers at slaughter was up 0.5 percent from the previous year, and the average liveweight remained the same at 5.5 pounds.

The decline in broiler meat production in January 2007, even with one more slaughter day than in January 2006, led to the first-quarter 2007 meat production estimate being lowered by 75 million pounds to 8.75 billion pounds, down 2 percent from the same period in 2006. The second-quarter 2007 meat production estimate was lowered by 50 million pounds, bringing the total yearly estimate to 35.9 billion pounds.

Revisions of the 2006 broiler meat production estimates in the NASS Poultry Slaughter 2006 Annual Summary produced, for the most part, only small changes to the quarterly estimates. The only change of note was an upward revision of 21 million pounds in fourth-quarter 2006 broiler meat production to 8.8 billion pounds. The revised annual estimate of broiler meat production in 2006 is now 35.75 billion pounds, up 23 million pounds from the previous estimate. This is a 1.1-percent increase over 2005. The larger production in 2006 was chiefly the result of a 1.8-percent increase in the average weight at slaughter, as the total number of broilers slaughtered declined by 0.2 percent.

Weekly chick placements over the last 5 weeks (February 3 to March 3) have averaged 172 million, 1.3 percent lower than during the same period in 2006. Weekly chick placements have been below those of the previous year almost continuously since mid-September 2006, but the magnitude of year-over-year declines has been narrowing. The strong increases in broiler-part prices seen in January and February are likely to convince producers to slowly expand chick production.

Over the first 2 months of 2007, the 12-city whole broiler price averaged 73.2 cents per pound, up 16 percent from the low prices of the same period in 2006. Prices for almost all broiler products have strengthened considerably compared with fourth-quarter 2006 and are much higher than in the first 2 months of 2006. Boneless-skinless breast meat prices in the Northeast market averaged \$1.36 per pound during January and February, up 34 percent from the previous year. Prices for rib-on breasts averaged 93 cents per pound, an increase of 48 percent from same time in 2006. Leg quarter prices during the first 2 months of 2007 averaged 36.4 cents per pound, up 55 percent from the same period in 2006. Only wing prices have shown any weakness, declining somewhat from their normal seasonal high around the "Super Bowl" period. With lower broiler meat production forecast for first-half 2007, broiler prices are expected to remain above their year-earlier levels over at least the next several months.

The NASS Cold Storage 2006 Summary included some revisions to the 2006 ending quarterly stocks data for broiler meat. Revisions to earlier quarters were minor, but the ending stocks estimate for 2006 was lowered by 9 million pounds to 745 million pounds, a level generally in line with ending stocks in previous years. Ending stocks for 2005 had been a record 924 million pounds, placing strong downward pressure on broiler meat prices during the first half of 2006.

### **Turkey Production Forecast Up in 2007**

U.S. turkey meat production in January 2007 was 483 million pounds, up 8.1 percent from a year earlier, with much of the increase due to an additional slaughter day in 2007. The number of turkeys slaughtered was 20.7 million, an 11-percent jump from a year ago. However, the total liveweight of turkeys at slaughter did not rise as steeply (up 8.6 percent) because the average bird weight at slaughter fell by 2.1 percent from the previous year. Turkey meat production in first-quarter 2007 is estimated at 1.41 billion pounds, an increase of 4 percent from first-quarter 2006. Only minor revisions to 2006 turkey meat production were made in the NASS Poultry Slaughter 2006 Annual Summary.

Ending stocks for turkey in 2006 were revised down slightly to 218 million pounds, about 6 percent higher than in 2005. Ending stock levels for January 2007 were 304.3 million pounds, a 16.8-percent increase from a year earlier. Not only were stocks higher at the end of January, but the composition of the stocks is totally different from a year ago. Throughout most of 2006, stock levels for whole turkeys were considerably lower than the previous year. By the end of January 2007, this situation had completely changed and stocks of whole turkeys totaled 123 million pounds, 42 percent above the previous year.

Even with the higher production and increased stock levels, prices for many turkey products in early 2007 were higher than at the start of 2006. Over the first 2 months of 2007, prices for whole birds (hens and toms) averaged 69 cents per pound, up 2.5 percent from the same period in 2006. Turkey prices are expected to remain strong through at least the first half of 2007, helped by higher broiler prices and continued growth in the domestic economy.

### **Broiler Exports Finished Strong in 2006**

For the fourth quarter of 2006, broiler exports finished at 1.412 billion pounds, an increase of 7.4 percent from a year earlier and the third-highest for any quarter recorded this decade. Broiler exports for 2006 finished at 5.272 billion pounds, 1.3 percent above 2005. Most U.S. broiler shipments went to Mexico, China/Hong Kong, Russia, and the Commonwealth of Independent States excluding Russia. These countries, plus the Caribbean Islands, accounted for 64 percent of all U.S. broiler shipments, with 30 percent going to Russia (see chart 1). Shipments to China reached record levels in 2006. Chinese imports of U.S. broiler meat have been on the rise for the past several years and are expected to continue in 2007.

# Meetings, Seminars and Conventions

## 2007 April

**April 12-15: Chicken Biology Meeting**, Universitat Pompeu Fabra, Barcelona, Spain. Contact: Claudia D. Stern, Department of Anatomy & Developmental Biology, University College London, Gower Street, London WC1E 6BT, United Kingdom, Phone: +44 20 7679 3346; Fax: +44 20 7679 2091; Email: c.stern@ucl.ac.uk; Website: www.lists.bbsrc.ac.uk/mailman/listinfo/chicken-genome

**April 19-20: 30th Technical Turkey Conference**, Macclesfield, United Kingdom. Contact: Turkeytimes, P.O. Box 3541, Chester CH1 9FW, United Kingdom, Phone: +44 1829 741251; Fax: +44 1829 733778; Email: admin@turkeytimes.co.uk; Website: www.turkeytimes.co.uk

## 2007 May

**May 8-10: Victam International 2007**, Jaarbeurs Hall, Utrecht, The Netherlands. Contact: Victam International BV, P.O. Box 197, 38600 AD Nijkerk, The Netherlands. Phone: +31 33 246 4404; Fax: +31 33 246 4706; Website: www.victam.com

**May 14-18: International Short Course in Poultry Production**, North Carolina State University, Raleigh, North Carolina USA. Contact: Dr. Edgar O. Oviedo, Department of Poultry Science, Scott Hall O-239, Phone: +1 919 515 5391; Fax: +1 919 515 7070; Email: edgar\_oviedo@ucsu.edu

**May 21-23: VIV Russia 2007**, Moscow, Russia. Contact: VNU Exhibitions Europe B.V., P.O. Box 8800, 3503 RV Utrecht, The Netherlands. Phone: +31 30 295 2772; Fax: +31 30 295 2809; Email: viv.russia@vnuexhibitions.com; Website: www.viv.net

## 2007 June

**June 19-21: AgroFarm 2007**, VVC exhibition grounds, Moscow, Russia. Contact: DLG (Deutsche Landwirtschafts-Gesellschaft e.V.) Eschborner-Landstrasse 122, 60489 Frankfurt-am-Main, Germany, Phone: +49 69 244788 265; Fax: +49 69 24788 113; Email: O.Hunger@DLG.org; Website: www.DLG.org

**June 21-23: 4th International Symposium on Turkey Production**, Berlin, Germany. Contact: Prof. H.M. Hafez, Free University Berlin, Konigsweb 63, 14163 Berlin, Germany. Phone: +49 30 8386 2677; Fax: +49 30 8386 2690; Email: hafez@vetmed.fu-berlin.de

**June 28-30: VIV Turkey 2007**, Istanbul, Turkey. Contact: Richard deBoer, VNU Exhibitions Europe, P.O. Box 8800, 3503 RV Utrecht, Netherlands. Phone: +31 30 295 2714; Fax: +31 30 295 2809; Email: richard.de.boer@vnuexhibitions.com; Website: vnuexhibitions.com or www.viv.net

## 2007 July

**July 8-12: Poultry Science Association Annual Meeting 2007**, San Antonio, Texas. Contact: Poultry Science Association, 1111 N. Dunlap Avenue, Savoy, Illinois 61874; Phone: +1 217 356 5285; Fax: +1 217 398 4119; Website: www.poultryscience.org

**July 14-18: AAAP/AVMA Annual Meeting**, Washington Convention Center, Washington, D.C. AAAP Lodging and Hotel Reservation forms are available on our website: www.aaap.info. For more information email: AAAP@uga.edu

**July 23-25: Biology of Breeding Poultry**, 29th Poultry Science Symposium organised by the UK Branch of the WPSA. Surgeons Hall, Edinburgh, UK. Contact: Dr. Paul Hocking, Roslin Institute, Roslin, Midlothian EH25 9PS, Scotland. Phone: +44 131 527 4251; Fax +44 131 440 0434; Email: paul.hocking@bbsrc.ac.uk; Website: www.wpsa.com

## 2007 August

**August 26-30: 16th European Symposium on Poultry Nutrition**, Strasbourg, France. Contact: Groupe Francais de la WPSA, BP 5, 37380 Nouzilly, France; Fax: +33 2 47 56 11 39; Email: WPSAFrance2aol.com; Website: www.wpsa.fr

## 2007 September

**September 2-5: 18th European Symposium on the Quality of Poultry Meat and 12th European Symposium on the Quality of Eggs and Egg Products 2007**, Prague Congress Centre, Czech Republic. Contact: Guarant International spol.s.t.o., Opletalova 22, 110 00 Prague 1, Czech Republic; Phone: +420 284 001 444; Fax: +420 284 001 448; Email: eggmeat2007@guarant.cz; Website: www.eggmeat2007.cz

**September 12-15: 15th Congress of the World Veterinary Poultry Association**, Jiuhua Grand Hotel, Beijing, P.R. China. Contact: Scientific issues: Dr. Xiaoling Chen. The Poultry Health Branch of the Chinese Association of Animal Science & Veterinary Medicine (CAAV), PO Box 2449-21, Beijing 1000089, P.R. China; Phone: +86 10 6217 4126; Email: llwang@wvpc2007.org; Website: www.wvpc2007.org

**September 25-28: 20th Latin American Poultry Congress**, FIERGS Events Centre, Porto Alegre, Brazil. Contact: Website: www.avicultura2007.com.br

**September 26-28: 5th European Poultry Genetic Symposium 2007**, Braedstrup-Horsens, Denmark. Contact: Dr. Poul Sorensen, Email: poul.sorensen@agrsci.dk; Website: www.epgs2007.agrsci.dk

## 2007 October

**October 8-10: 2007 National Meeting on Poultry Health Processing**, Clarion Resort Fontainebleau Hotel, Ocean City, Maryland. Contact: Karen Adams, Delmarva Poultry Industry, Inc., 16686 County Seat Highway, Georgetown, Delaware 19947-4881. Phone: 302-856 9037; Fax: 302-856-1845. For information about meeting rooms and food accommodations at the Clarion Resort Fontainebleau Hotel, contact Kay Windsor, Phone: 800-638-2100.

## 2008 January

**January 23-25: International Poultry Expo 2008**, Georgia World Congress Center, Atlanta, Georgia. Contact: US Poultry & Egg Association, 1530 Cooledge Road, Tucker, Georgia 30084-7804. Phone: 1-770-493-9401; Fax: 1-770-493-9257; Email: expogeneralinfo@poultryegg.org; Website: www.poultryegg.org or www.ipe08.org

## 2008 March

**March 5-6: Nebraska Poultry Industries Annual Convention**, New World Inn & Conference Center, Columbus, Nebraska. Contact: Nebraska Poultry Industries, Inc. University of Nebraska, A103 Animal Sciences, PO Box 830908, Lincoln, Nebraska 68583-0908; Phone: 1-402-472-2051.

**March 5-7: Victam Asia 2008**, Bangkok, Thailand. Contact: Henk van de Bunt, Victam International B.V., P.O. Box 197, 3860 AD Nijkerk, The Netherlands, Phone: +31 33 246 4404, Fax: +31 33 246 4706, Email: expo@victam.com; Website: www.victam.com or Contact: Mr. Phusit Sasitaranondha, Thailand, Phone: +66 2 640 8013; Fax: +66 2 664 2076; Email: phusit@expolink.net

# Meetings, Seminars and Conventions

**2008  
June**

June 29-July 4: *XXIII World's Poultry Congress*, Convention and Exhibition Centre, Brisbane, Australia. Contact: WPC 2008 Congress, Intermedia Convention & Event Management, PO Box 1280, Milton, Queensland 4064, Australia, Phone: +61 7 3858 5594; Fax: +61 7 3858 5510; Email: wpc2008@im.com.au; Website: www.wpc2008.com

**2008  
August**

August 17-21: *8th International Marek's Disease Symposium*, Townsville, Queensland, Australia. Contact: Dr. G. Burgess, School of Veterinary & Biomedical Sciences, James Cook University, Townsville, Queensland 4811, Australia. Phone: +61 7 4781 5472; Fax: +61 7 4781 6833; Email: graham.burgess@jcu.edu.au

**2010  
April**

April 20-23: *VIV Europe 2010*, Utrecht, The Netherlands. Contact: XNU Exhibitions Europe B.V., P.O. Box 8800, 3503 RV Utrecht, The Netherlands, Fax: +31 30 295 2809; Website: www.viv.net

**2009  
January**

January 28-30: *International Poultry Expo 2009*, Georgia World Congress Centre, Atlanta, Georgia. Contact: US Poultry & Egg Association, 1530 Cooledge Road, Tucker, Georgia 30084-7804. Phone: +1 770 493 9401; Fax: +1 770 493 9257; Email: expogeneralinfo@poultryegg.org. Website: www.poultryegg.org

## 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.



COBB-VANTRESS



Primary  
Breeders  
Veterinary  
Association



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.

The Poultry Informed Professional Newsletter is published with support from The Primary Breeders Veterinary Association.