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Current Implications in the Field of MG and MS on Broilers and Laying Hen Production

Material for this article was presented at the XI International Seminar of Poultry Pathology and Production organized by the Colombian Veterinary Poultry Association (AMEVEA) and the University of Georgia

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Efforts in the United States to control Mycoplasma gallisepticum (MG) began in the 1960's, primarily as a response to high condemnations from airsacculitis after the initiation of USDA post mortem inspection of poultry. Somewhat later, M. synoviae (MS) and M. meleagridis (MM) were added to the program. Since then, significant progress has been made in controlling Mycoplasma infections in turkey and chicken breeding stocks. Voluntary MG control programs in the U. S. are administered under the National Poultry Improvement Plan; testing provisions and protocols are provided in their official publication (1). The majority of poultry production in the U. S. is mycoplasma-free; however, MG and MS infection are common in commercial egg production flocks. Unfortunately, in spite of increased efforts at control, outbreaks

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Broiler Performance Data (Region)
Live Production Cost

	SW	Midwest	Southeast	Mid-Atlantic	S-Central
Feed cost/ton w/o color ($)	165.86	160.07	171.50	156.83	164.84
Feed cost/lb meat (¢)	15.49	15.39	15.71	13.97	15.64
Days to 4.6 lbs	41	41	42	40	41
Chick cost/lb (¢)	4.13	3.51	4.22	4.56	3.77
Vac-Med cost/lb (¢)	0.06	0.12	0.07	0.06	0.06
WB & 1/2 parts condemn. cost/lb	0.11	0.14	0.15	0.22	0.14
% mortality	4.32	3.44	4.54	4.32	3.45
Sq. Ft. @ placement	0.84	0.86	0.81	0.79	0.85
Lbs./Sq. Ft.	6.92	7.64	7.04	6.51	7.33
Down time (days)	17	19	17	14	15

Data for week ending November 25, 2006

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continue to occur. There have been changes which have resulted in an evolving situation in MG control, both in the United States and world-wide. These include changes in the poultry industry itself, improved detection methods, better understanding of the agent and its pathogenesis, and improved control methods.

Changes in the of the Poultry Industry Which Affect Mycoplasma Control

In most modern poultry producing areas of the world, the emphasis on the control of Mycoplasma infections has been centered around maintenance of Mycoplasma-free breeding stock and keeping parent and production flocks free of infection by utilizing single-age, all-in all-out farms with good biosecurity. In many parts of the world, this has been very successful, and the majority of broiler, turkey and egg production is free of infection. In contrast, areas with less-developed poultry industries tend to have high levels of contamination with MG and MS; this poses special problems for companies attempting to institute modern production methods.

With the rapid growth of poultry production worldwide, there has been concentration of large numbers of birds into small areas, leading to increased risk of exposure to pathogenic Mycoplasmas. In some areas, poultry production is so concentrated that from an epidemiological point of view, it is almost like a very large multi-age farm. Also, general improvements in disease control have sometimes resulted in decreased efforts in biosecurity, thus enhancing the possibilities for the spread of Mycoplasma infections (13).

There has been a tendency to drift away from all-in all-out production and to concentrate production on multi-age sites. This has been especially true for commercial egg production – the majority of egg production in the U.S. is now on multi-age sites, and this trend is developing around the world. Such multi-age production sites are mostly MS-positive, and many are also MG positive (24), even though grandparent and parent stocks are generally MG and MS-free.

In many locations, multi-age management of broiler breeders or broilers may occur. In turkey production, multi-stage production farms, on which 2 or even 3 different ages are maintained, are becoming quite common.

Therefore, in spite of sometimes heroic efforts at biosecurity and improved understanding of the survival of Mycoplasmas outside the host, Mycoplasma outbreaks continue to occur.

Improvements in Detection Methods

The basis for control programs has centered around serological methods such as agglutination and hemagglutination-inhibition, with reactors often confirmed by isolation of the organism. More recently, commercial ELISA kits have become available (IDEXX Laboratories, Westbrook, Maine, USA; Kirkegaard and Perry Laboratories, Gaithersburg, Maryland, USA) and are becoming widely used. Such kits have excellent sensitivity and specificity, but non-specific reactions may still occur. Potential improvements in ELISA specificity may result from the utilization of highly purified antigens, or the use of a blocking ELISA utilizing a specific monoclonal antibody.

MG strains of low virulence typically produce a poor antibody response, and isolation from clinical specimens may be difficult (28). This may be especially true if the antigenic makeup of the MG strain involved is not a good match with the strains used to produce test antigens. Variability in strains and clinical responses have also been noted for MS. We have encountered situations where flocks have exhibited a low-level serological response with a low percentage of PCR reactions. Such flocks have been culture negative. It has been possible to transfer such reactivity by placing SPF chickens in contact with the principals. These observations suggest that there may be atypical strains which have been undetectable with traditional diagnostic methods.

Polymerase chain reaction represents a rapid and sensitive alternative to traditional culture methods, which require specialized media and reagents and are time consuming. At least one company (IDEXX Laboratories, Westbrook, Maine, USA) produces commercial PCR kits, which are being widely used. A PCR procedure developed by Dr. Lauerman at Auburn University (17) is also in wide use. We now use a PCR based on the mgc2 gene (11), which allows preliminary strain identification by sequencing of the PCR product.

Such improvements in serological methods and rapid detection by PCR have done much to facilitate the rapid and accurate diagnosis of MG infection.

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Variability Among and Within Strains of M. gallisepticum and M. synoviae

MG and MS strains are known to vary in pathogenicity and antigenicity (14, 15). Variability in pathogenicity among strains of MG has been recognized for some time (28). Significant antigenic variability among MG strains also exists (15), which could affect the sensitivity of serological tests, depending on the strain infecting the flock and the strain used to prepare antigen. There are also significant differences in virulence among strains of MS. Recently, a strain of MS was encountered in turkeys which did not induce an antibody response even though birds were culture positive in the upper respiratory tract (16). House finches (Carpadacus mexicanus) with conjunctivitis caused by MG has been shown to be widespread in the U.S. (18, 19, 22). This strain has been shown to spread poorly to chickens and to be relatively avirulent in chickens (26). A house finch-like strain of MG has also been isolated from turkeys with atypically mild clinical disease (6).

Restriction Length Polymorphism (RFLP) of whole-cell DNA has been shown to be useful for differentiating MG strains (15). However, the RFLP procedure is time-consuming and laborious, making identification of specific strains a tedious procedure. More recently, Random Amplified Polymorphic DNA (RAPD) has been developed for identifying specific strains (4, 5, 8). This procedure is very simple and rapid, and has provided a routine procedure for the rapid identification of MG strains. This has proven to be very useful for epidemiological studies and for identification of specific MG strains in field outbreaks. More recently, we have utilized a PCR for the PvpA (20), mgc1 (gapA) (9, 12) and lipoprotein (25) genes, followed by RFLP or sequencing of the PCR product to identify specific MG strains. We are currently evaluating this method under field conditions utilizing primers for the mgc2 gene (11). Using this method we have been able to more closely pinpoint the identity of field and vaccine strains.

Studies utilizing Western blots and monoclonal antibodies have shown a high degree of variability in expression of surface antigens among strains of MG; many of these proteins are variably expressed (2, 3, 23). This has led to a large effort in characterizing the variable expression of surface antigens have shown that phase variation also occurs in vivo. Similar variability of surface antigen expression has now also been shown to occur among strains of MS. For example, clones of MS which are hemagglutinin negative are less virulent than clones which are hemagglutinin positive. The significance of such variability in the expression of surface antigens is not well understood; however, it seems logical that it would play a role in pathogenesis, serological responses, and evasion of the immune system of the host.

M. gallisepticum Vaccination – Killed Vaccines

With the advent of multi-age commercial layer complexes, control by vaccination became desirable.

The first commercially available MG vaccines were oil-emulsion bacterins (10). Bacterins protect well against airsacculitis and egg production losses, but provide little protection against colonization by field strains of MG, thus providing little value in eradication programs. Major disadvantages of bacterins are the need for 2 doses for optimal protection and the cost of administration.

Antibiotic Therapy

The use of antibiotics may improve the ability to control mycoplasma infections and the resulting impaired performance. In an unplanned experiment where 3 experimental strains of breeder chickens were accidentally exposed to MG and MS, we used enrofloxacin at 10 mg/kg via drinking water for 14 days continuously (27). We found that the therapy was successful in eliminating the MG based on culture and PCR but was not successful in eliminating the MS.

Other antibiotics have also been used, such as tetracyclines at 200 g/ton and feed tylosin at 50 g/ton of feed and also tiamulin for reduction of signs/lesions (7).

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Broiler Whole Bird Condemnation (Region)

	SW	Mid-West	S. East	Mid-Atlantic	S. Central
% Septox	0.185	0.173	0.190	0.360	0.148
% Airsac	0.041	0.039	0.026	0.036	0.043
% I.P.	0.006	0.026	0.007	0.011	0.047
% Leukosis	0.001	0.003	0.001	0.001	0.000
% Bruise	0.003	0.003	0.002	0.001	0.004
% Other	0.011	0.008	0.015	0.008	0.007
% Total	0.198	0.253	0.240	0.416	0.299
% 1/2 parts condemnations	0.207	0.307	0.290	0.587	0.262

Data for week ending November 25, 2006

Broiler Performance Data (Company)
Live Production Cost

	Average Co.	Top 25%	Top 5 Co.'s
Feed cost/ton w/o color ($)	166.23	167.32	168.86
Feed cost/lb meat (¢)	15.38	14.42	14.28
Days to 4.6 lbs	41	42	42
Chick cost/lb (¢)	4.04	5.44	5.32
Vac-Med cost/lb (¢)	0.08	0.06	0.03
WB & 1/2 parts condemn. cost/lb	0.15	0.12	0.16
% mortality	3.94	3.29	3.08
Sq. Ft. @ placement	0.83	0.71	0.72
Lbs./Sq. Ft.	7.06	5.65	5.71
Down time (days)	16	16	18

Data for week ending Nobember 25, 2006

Broiler Whole Bird Condemnation (Company)

	Average Co.	Top 25%	Top 5 Co.'s
% Septox	0.193	0.119	0.211
% Airsac	0.040	0.041	0.022
% I.P.	0.021	0.032	0.014
% Leukosis	0.001	0.001	0.001
% Bruise	0.003	0.003	0.001
% Other	0.010	0.006	0.006
% Total	0.268	0.202	0.257
% 1/2 parts condemnations	0.314	0.266	0.469

Data for week ending November 25, 2006

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-Type Eggs Set In 19 Selected States Down 3 Percent

According to the latest National Agricultural Statistics Service (NASS) reports, commercial hatcheries in the 19-State weekly program set 209 million eggs in incubators during the week ending November 25, 2006. This was down 3 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 4 Percent

Broiler growers in the 19-State weekly program placed 162 million chicks for meat production during the week ending November 25, 2006. Placements were down 4 percent from the comparable week a year earlier. Cumulative placements from January 1, 2006 through November 25, 2006 were 8.10 billion, down 1 percent from the same period a year earlier.

October Egg Production Up 1 Slightly

U.S. egg production totaled 7.67 billion during October 2006, up slightly from last year. Production included 6.60 billion table eggs, and 1.07 billion hatching eggs, of which 1.00 billion were broiler-type and 67 million were egg-type. The total number of layers during October 2006 averaged 344 million, up slightly from last year. October egg production per 100 layers was 2,231 eggs, down slightly from October 2005.

All layers in the U.S. on November 1, 2006 totaled 344 million, up slightly from last year. The 344 million layers consisted of 288 million layers producing table or market type eggs, 53.2 million layers producing broiler-type hatching eggs, and 2.79 million layers producing egg-type hatching eggs. Rate of lay per day on November 1, 2006, averaged 72.2 eggs per 100 layers, down slightly from November 1, 2005.

Egg-Type Chicks Hatched Up 2 Percent

Egg-type chicks hatched during October 2006 totaled 36.3 million, up 2 percent from October 2005. Eggs in incubators totaled 32.8 million on November 1, 2006, down 3 percent from a year ago.

Domestic placements of egg-type pullet chicks for future hatchery supply flocks by leading breeders totaled 223,000 during October 2006, up 19 percent from October 2005.

Broiler-Type Chicks Hatched Down 1 Percent

Broiler-type chicks hatched during October 2006 totaled 772 million, down 1 percent from October 2005. Eggs in incubators totaled 608 million on November 1, 2006, down 2 percent from a year earlier.

Leading breeders placed 6.74 million broiler-type pullet chicks for future domestic hatchery supply flocks during October 2006, down 3 percent from October 2005.

Turkey Eggs in Incubators on November 1 Up 9 Percent From Last Year

Turkey eggs in incubators on November 1, 2006, in the United States totaled 29.9 million, up 9 percent from November 1, 2005. Eggs in incubators were down 1 percent from the October 1, 2006 total of 30.3 million eggs. Regional changes from the previous year were: East North Central up 9 percent, West North Central up 7 percent, North and South Atlantic up 14 percent, and South Central and West up 4 percent.

Poults Placed During October Up 15 Percent From Last Year

The 24.7 million poults placed during October 2006 in the United States were up 15 percent from the number placed during the same month a year earlier. Placements were up 6 percent from the September 2006 total of 23.4 million. Regional changes from the previous year were: East North Central up 20 percent, West North Central up 12 percent, North and South Atlantic up 14 percent, and South Central and West up 27 percent.

Broiler Production Forecast Higher in Fourth Quarter

According to the latest Economic Research Service (ERS) reports, federally inspected broiler meat production in fourth-quarter 2006 is forecast at 8.9 billion pounds, almost identical to a year ago. In the fourth quarter, a reduction in the number of birds slaughtered is expected to be offset by higher average weights. U.S. broiler production in the third-quarter 2006 was 8.88 billion pounds, down 0.7 percent from a year earlier. The quarterly decline in broiler meat production was the first since first-quarter 2003. The lower meat production was chiefly the result of a smaller number of birds slaughtered (down 1.9 percent). This decline in birds slaughtered was partially offset by an increase in average weights.

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The current low wholesale prices for most broiler products, combined with the expectations of higher feed prices, is expected to have a depressing effect on broiler meat production in 2007. The forecast for 2007 was reduced by 250 million pounds to 5.33 billion, an increase of only 1.3 percent from 2006.

The weekly broiler hatchery report showed that over the last 5 weeks (Oct. 7 through Nov. 4), the number of broiler chicks placed for grow-out averaged 0.6 percent lower than in the same period in 2005. The data for eggs placed in incubators over the last 3 weeks points toward chick placements in the coming weeks continuing to be below those of last year.

Third-Quarter Broiler Ending Stocks Lower

Falling prices for most broiler products have not been caused by larger supplies of cold storage stocks. Lower broiler production in the third quarter pushed down ending broiler stocks to 713 million pounds, down 5.4 percent from the same period in 2005 and down almost 8 percent from the end of third-quarter 2004. A reduction in the stocks of broiler parts makes up most of the decline in cold storage holdings. Parts stocks were down 4.8 percent from the same period in 2005. Cold storage holdings varied widely, depending on the specific part. At the end of September, stocks of leg quarters were down 18 percent and leg stocks were 16 percent lower, while holdings of thigh meat were up 65 percent from the previous year.

At the end of third-quarter 2006, cold storage holdings of whole broilers, which are only a small percentage of overall broiler stocks, were 16.7 million pounds, down 24 percent from the previous year. This sharp decrease in cold storage holdings of whole broilers is one explanation of why whole bird prices have not declined as heavily over the last 2 months.

Even with a decline in broiler production in the third quarter of 2006 and lower ending stocks, prices for most poultry products have fallen in September and October. Northeast boneless/skinless breast meat prices were $1.03 per pound in October, down 13 percent from a year earlier. Since August, prices for breast meat products have declined by about 30 cents per pound. Prices for most other broiler products have also declined. Prices for leg quarters and thighs in the Northeast market were $0.29 and $0.36 per pound in October, down 36 and 43 percent, respectively, from a year earlier. With production expected to be basically unchanged in fourth-quarter 2006 compared with the previous year, prices for broiler products are expected to remain depressed through the end of the year.

Turkey Production Rises

U.S. turkey production in third-quarter 2006 was 1.42 billion pounds, up 3.2 percent from a year earlier. The increase in production was the result of a higher number of birds being slaughtered (up 1.9 percent) and an increase in average weight to 27.8 pounds. Federally inspected turkey production in the fourth quarter of 2006 is forecast at 1.46 billion pounds, slightly higher than during the same period in 2005. Turkey production is expected to increase slightly in 2007 in response to the higher prices seen throughout 2006, early 2007.

Even with higher third-quarter production and only a slight gain in exports, ending stocks for the third quarter were down from last year. Cold storage holdings of whole turkeys at the end of September were estimated at 233 million pounds, down 12 percent from the same period last year. Cold storage holdings of turkey parts were also down. Stocks of turkey parts at the end of September were estimated at 230 million pounds, up 8 percent from a year earlier. Total third-quarter ending stocks for turkey were 463 million pounds, a decrease of 3 percent from a year earlier.

Over the first three quarters of 2006, turkey meat production has totaled 4.2 billion pounds. This is approximately what turkey production was during the first three quarters of 2003. At this point it seems that market demand has finally caught up to the current production level. The restrained domestic production has led to falling stock levels, which have helped to push whole turkey prices higher, especially over the last 2 months. The price for whole hens in the Eastern region was 95.8 cents per pound in October, up 16 percent (a bit over 13 cents per pound) from a year earlier. Prices for whole birds and turkey parts are expected to remain strong through the Thanksgiving period and then decline seasonally, but remain above year-earlier levels. With higher production expected to be somewhat offset by higher exports, turkey prices are expected to remain strong through the first half of 2007.

Meetings, Seminars and Conventions

2007 January

Jan. 22-23: ***International Poultry Scientific Forum,*** Georgia World Congress Center, Atlanta, Georgia. Contact: International Poultry Scientific Forum. Phone: 770-493-9401; Fax: 770-493-9257. sEmail: poultryscientificforum@poultryegg.org. Website: www.poulryegg.org

Jan. 24-26: ***2007 International Poultry Exposition,*** Georgia World Congress Center, Atlanta, Georgia, USA. Contact: US Poultry & Egg Association, 1530 Cooledge Road, Tucker, Georgia 30084 USA. Phone: +1 770 493 9401;
Fax: +1 770 493 9257; Website: www.poultryegg.org

2007 February

Feb. 12-14: ***Australian Poultry Science Symposium 2007,*** University of Sydney, Sydney, Australia. Contact: Poultry Research Foundation, University of Sydney, 425 Werombi Road, Camden, NSW 2570, Australia. Phone:+61 2 46 550 656; Fax: +61 2 46 550 693; Website: www.vetsci.usyd.edu.au/apss

Feb. 21-23: ***XIII Jornada Medico Avicola,*** Auditorio Pablo Zierold, Mexico City, Mexico. Contact: Organizer, DPA: Aves, FMVZ-UNAM, Facultad de Medicina Veterinaria y Zootecnia, UNAM, Av. Universidad 3000 Ciudad Universitaria, Mexico DF 04510 Mexico. Email: jma_unam@yahoo.com.mx or jma_unam@hotmail.com. Website: www.fmvz.unam.mx/fmvz/educontinua/DECcal

2007 March

March 1-3: ***5th International Poultry Show and Seminars 2007,*** Dhaka, Bangladesh. Contact: International Seminar, Dr. Q.M.E. Huque, Bangladesh Livestock Research Institute, Savar, Dhaka 1341, Bangladesh. Phone: +8802 770 8324: Fax +880 2 770 8325; Email: qmehuque@bangla.net

March 7-9: ***VIV Asia 2007,*** Bangkok, Thailand. Contact: VNU Exhibitions Europe B.V., P.O. Box 8800, 3503 RV Utrecht, The Netherlands. Phone: +31 30 295 2778: _+66 2 229 3737; Fax: +31 30 295 2809; Website: www.viv.net

March 5-6: ***8th Asia Pacific Poultry Conference,*** Swissotel Le Concorde, Bangkok, Thailand. Contact: Swanvajokkasikit Animal R&D Institute, Kasetsart University, Bangkok, Thailand. Phone: +66 2 579 0193; Fax: +66 2 579 0193 Email: info@appc2007.org; Website: www.appc2007.org

March 7-8: ***Nebraska Poultry Industries Annual Convention,*** New World Inn & Conference Center, Columbus, Nebraska. Contact: Nebraska Poultry Industries, Inc., University of Nebraska, A103 Animal Sciences, P.O. Box 830908, Lincoln, Nebraska 68583-0908. Phone: 402-472-2051.

March 12-15: ***PEPA Convention,*** Loews Coronado Bay Resort, Coronado, California. Contact: Pacific Egg & Poultry Associatioin, 1521 I Street, Sacramento, California 95814. Phone: 916 441 0801; Fax: 916 446 1063.

March 12-13: ***North Central Avian Disease Conference,*** St. Paul RiverCentre, St. Paul, Minnesota USA. Contact: Lara Durben, MPF, Phone: +1 763 682 2171; Fax: +1 763-682 5546; Email: lara@midwestpoultry.com

March 13-15: ***Midwest Poultry Federation Convention 2007,*** St. Paul, Minnesota USA. Contact: Midwest Poultry Federation, 108 Marty Drive, Buffalo, Minnesota 55313 USA. Phone: +1 763-682-2171; Fax: +1 763-682-5546; Email: Nicole@midwestpoultry.com; Website: www.midwestpoultry.com

March 26-29: ***56th Western Poultry Disease Conference and ACPV Workshop,*** Riviera Hotel & Casino, Las Vegas, Nevada. Contact: R.P. Chin. Email: rpchin@ucdavis.edu

March 27-29: ***4th Internatioinal Poultry Conference,*** Sharm El-sheikh, Egypt. Contact: Dr. MA. Kosba, Facultry of Agriculture, Alexandria University, Alexandria, Egypt. Phone: +20 35 921960; Fax _20 35 231939; Email: mkosba@hotmail.com

2007 April

April 12-15: ***Chicken Biology Meeting,*** Universitat Pompeu Favra, 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. Oveido, 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 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: vnuexibitions.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

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

Meetings, Seminars and Conventions

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 Cobgress 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 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 Fountainebleau 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 accommocations at the Clarion Resort Fontainebleau Hotel, contact Kay Windsor, Phone: 800-638-2100.

2008 January

January 23: ***International Poultry Expo 2008,*** Georgia World Congress Centre, Atlanta, Georgia. Contact: UD 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

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.

2008 June

July 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 July

July 8-12: ***Poultry Science Association Annual Meeting 2007,*** San Antonio, Texas. Contact: Website: www.poultryscience.org

2008 August

August 10-15: ***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.wpsa.info

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

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: WPSAFrance@aol.com; Website: www.wpsa.fr

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 under the Online Documents and The Poultry Informed Professional links.

Broiler Performance Data (Region) Live Production Cost					
	SW	Midwest	Southeast	Mid-Atlantic	S-Central
Feed cost/ton w/o color ($)	148.36	146.86	151.26	139.77	151.03
Feed cost/lb meat (¢)	14.07	14.14	13.59	12.56	14.23
Days to 4.6 lbs	41	41	42	40	41
Chick cost/lb (¢)	4.13	3.47	3.96	4.33	3.71
Vac-Med cost/lb (¢)	0.06	0.11	0.06	0.06	0.06
WB & 1/2 parts condemn. cost/lb	0.10	0.17	0.14	0.17	0.12
% mortality	4.00	3.49	3.76	4.26	3.49
Sq. Ft. @ placement	0.84	0.87	0.81	0.79	0.86
Lbs./Sq. Ft.	6.87	7.65	7.08	6.88	7.38
Down time (days)	14	17	16	14	13

Data for week ending October 28, 2006

Broiler Whole Bird Condemnation (Region)

	SW	Mid-West	S. East	Mid-Atlantic	S. Central
% Septox	0.117	0.336	0.189	0.263	0.126
% Airsac	0.038	0.040	0.024	0.029	0.033
% I.P.	0.006	0.029	0.006	0.008	0.038
% Leukosis	0.001	0.003	0.001	0.000	0.000
% Bruise	0.003	0.006	0.002	0.001	0.003
% Other	0.010	0.007	0.017	0.007	0.008
% Total	0.173	0.421	0.239	0.308	0.208
% 1/2 parts condemnations	0.215	0.296	0.311	0.608	0.282

Data for week ending October 28, 2006

Broiler Performance Data (Company)
Live Production Cost

	Average Co.	Top 25%	Top 5 Co.'s
Feed cost/ton w/o color ($)	149.73	151.03	151.20
Feed cost/lb meat (¢)	13.88	12.86	12.77
Days to 4.6 lbs	41	42	43
Chick cost/lb (¢)	4.00	5.46	5.42
Vac-Med cost/lb (¢)	0.08	0.07	0.02
WB & 1/2 parts condemn. cost/lb	0.15	0.10	0.11
% mortality	3.71	3.18	3.17
Sq. Ft. @ placement	0.83	0.71	0.72
Lbs./Sq. Ft.	7.08	5.63	5.54
Down time (days)	14	15	17

Data for week ending October 28, 2006

Broiler Whole Bird Condemnation (Company)

	Average Co.	Top 25%	Top 5 Co.'s
% Septox	0.202	0.091	0.157
% Airsac	0.037	0.034	0.018
% I.P.	0.021	0.024	0.008
% Leukosis	0.001	0.001	0.001
% Bruise	0.003	0.003	0.001
% Other	0.010	0.007	0.003
% Total	0.274	0.162	0.188
% 1/2 parts condemnations	0.313	0.247	0.245

Data for week ending October 28, 2006

COBB-VANTRESS

Aviagen

Hubbard

Primary Breeders Veterinary Association

HERITAGE

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