



# The Poultry Informed Professional



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## Infectious Bursal Disease Virus:

*What do I have on my farm?*

*Dr. Daral J. Jackwood*

With infectious bursal disease virus (IBVD), the question is *not* "Do I have the virus on my farm?" rather, the question usually is "What IBDV strain do I have on my farm?" This is because IBDV is endemic. It is present on most chicken farms and continues to cause immunosuppression, and loss of performance in spite of the fact that live-attenuated vaccines have been developed to control infectious bursal disease. Antigenic differences among IBDV strains are reported to be the reason why IBDV

is still causing disease in maternally immune and vaccinated chickens. The problem we face is how to determine which IBDV strains are present on a farm and

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

	SW	Midwest	Southeast	Mid-Atlantic	S-Central
Feed cost/ton w/o color	190.66	189.01	198.40	193.48	192.71
Feed cost/lb meat	19.01	18.31	19.17	19.79	20.16
Days to 4.6 lbs	48	46	47	45	45
Med. cost/ton	4.22	3.84	4.50	3.55	3.40
Chick cost/lb	4.29	4.36	4.53	4.08	3.96
Vac-Med cost/lb	0.10	0.11	0.09	0.12	0.11
WB & 1/2 parts condemn. cost/lb.	0.29	0.32	0.25	0.24	0.35
% mortality	4.86	5.67	4.25	5.00	5.74
Sq. Ft. @ placement	0.81	0.75	0.81	0.78	0.86
Lbs./Sq.Ft.	5.74	6.29	5.72	6.56	6.26
Down time (days)	10	7	11	10	10

Data for week ending 07/25/97.

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## Infectious Bursal Disease Virus

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which vaccine will work to protect chickens from these strains. Genetic research on IBDV strains at the Ohio State University, Ohio Agricultural Research and Development Center, has identified several mutations that correlate with antigenic differences among the viruses. A technique identified as RT/PCR-RFLP has been developed to identify these mutations. This technique has been used by Dr. Daral Jackwood to place vaccine strains of IBDV into 5 molecular groups. Two of the groups contain variant viruses and the other three groups contain classic IBDV strains. The five groups are termed "molecular" groups because they were identified based on molecular differences and similarities among the viruses. The fact that these five groups appear to correlate with antigenic differences is important because determining the antigenic type of an IBDV strain is difficult and time consuming. Determining the molecular group of an IBDV strain using PT/PCR-RFLP requires only two days. There are some limitations on the data that currently can be generated using the PT/PCR-RFLP assay. For example, the test will not tell us if the virus identified is an attenuated vaccine strain or a pathogenic strain. With further research in the area, we will hopefully overcome this limitation.

To learn more about the RT/PCR-RFLP test and how it can be used to identify and differentiate IBDV strains you can contact Dr. Daral Jackwood at The Ohio State University or visit the laboratory's World Wide Web site at [www.oardc.ohio-state.edu/ibdV](http://www.oardc.ohio-state.edu/ibdV).

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

	Average Co.	Top 25%	Top 5 Co's
Feed cost/ton w/o color	194.85	189.13	188.07
Feed cost/lb meat	19.58	18.37	18.21
Days to 4.6 lbs	46	47	47
Med. cost/ton	3.94	3.25	4.09
Chick cost/lb	4.29	4.29	4.19
Vac-Med. cost/lb	0.11	0.07	0.11
WB & 1/2 parts condemnations cost/lb	0.31	0.18	0.19
% Mortality	5.11	4.09	4.42
Sq. Ft. @ placement	0.81	0.79	0.81
Lbs/Sq. Ft.	6.11	5.90	5.87
Down time (days)	10	9	11

Data for week ending 07/25/97.

**Broiler Whole Bird Condemnation (Region)**  
**Live Production Cost**

	SW	Mid-West	S. East	Mid-Atlantic	S. Central
% Septox	0.343	0.470	0.190	0.257	0.309
% Airsac	0.123	0.094	0.246	0.191	0.239
% I.P.	0.069	0.115	0.169	0.070	0.295
% Leukosis	0.011	0.017	0.007	0.039	0.009
% Bruise	0.011	0.012	0.028	0.007	0.014
% Other	0.025	0.023	0.050	0.022	0.033
% Total	0.582	0.730	0.690	0.585	0.901
% 1/2 parts condemnations.	0.589	0.550	0.300	0.362	0.512

Data for week ending 07/25/97.

**Excerpts from the Latest Economic Research Service and National Agricultural Statistics Service USDA Reports**

**“Livestock, Dairy and Poultry Situation and Outlook” (ERS)**

**“Broiler Hatchery” and “Chicken and Eggs” (NASS)**

a year ago, but are continuing the slow increases seen in late June according to Economic Research Service Reports (ERS).

**Broiler Eggs set up 5 percent**

The National Agricultural Statistics Service (NASS) reports 172 million eggs set in commercial hatchery incubators in 15 selected states during the week ending July 19, 1997. This was up 3 percent from the corresponding week last year. Average hatchability for the week was 82 percent.

**Broiler Chicks Placed up 5 percent**

NASS also reports broiler growers in the 15-state weekly program placed 136 million chicks for meat production during the week ending July 19, 1997. Placements were up 5 percent from the comparable week in 1996. Cumulative placements from 12/29/96 through 7/19/97 were 4.03 billion, 3 percent above the 3.90 billion placed during the same period a year ago.

**Broiler Exports Fall**

Over the first 4 months of 1997, broiler exports totaled 1.4 billion pounds, down 2 percent from the same period in 1996. The decrease was primarily due to lower shipments to Asian countries.

Broiler exports are now expected to total 4.6 billion pounds, 4 percent higher than in 1996, but down about 200 million from previous estimates according to ERS reports.

**Turkey Prices Split**

According to ERS reports lower turkey meat production in the first half of 1997 brought higher prices for hen turkeys but tom turkey prices remained below last year. There appears to be a strong demand for whole birds (primarily smaller hen turkeys). The demand for processing meat from toms does not appear as strong.

**Turkey Exports to Rise Sharply**

ERS reports turkey and turkey products exports are now forecast to reach 535 million pounds in 1997, 22 percent higher than 1996. Larger than anticipated exports to Mexico and Hong Kong, the two largest markets for U.S. turkey products, are the driving forces in the increase.

**Broiler Returns Increasing**

As broiler production increases accelerated in the second quarter, the 12-city wholesale price for whole birds fell below 1996 and is expected to continue below last year this summer. Feed costs are about 15 percent lower than last year and will offset the lower prices and increase returns for the third quarter.

Strong increases in bird placements in late May and June indicate stronger production increases are probable this summer.

Prices for breast meat have increased from June and are now about the same as last year. Stronger demand for grilling and increased featuring have aided breast sales volume in recent weeks. Dark meat prices have been about 20 percent lower than

*(continued on page 4)*

### Egg Production Increasing

The table egg production flock is expected to be about 1 percent larger than a year ago for the last half of 1997 after being nearly 2 percent larger for the first 5 months of the year. Increased spent hen slaughter has kept the flock from increasing at a faster pace even with replacement pullet hatches up 3 percent January through May.

Increased slaughter and pullet placements will bring a slightly younger and probably more productive flock for the remainder of the year, resulting in production increases slightly larger than the increase in flock size. Molting rates have also fallen slightly with 1 percent less of the flock having completed molt on June 1, compared with last year.

### June Egg Production Up 2 Percent

NASS reports laying flocks in the 30 major egg production States produced 5.94 billion eggs during June, up 2 percent from June 1996. The average number of layers during June was 284 million, up 2 percent from a year earlier.

### Egg-Type Chicks Hatched Up 8 Percent

Egg-type chicks hatched totaled 37.0 million in June, up 8 percent from June 1996. Eggs in incubators totalled 29.9 million on July 1, 1997 down 1 percent from a year ago.

Domestic placements of egg-type pullet chicks for future hatchery supply flocks by leading breeders totalled 256,000 during June 1997, down 9 percent from June 1996.

## Poultry Diagnostic and Research Center News

### Postdoctoral Position Available

A Postdoctoral Traineeship is available at the Poultry Diagnostic and Research Center, College of Veterinary Medicine, University of Georgia, to study Infectious Bronchitis Virus (IBV). Specific areas of research include: Molecular analysis of the spike glycoprotein, immunogenicity of *in vitro* expressed viral proteins, and the development and analysis of novel recombinant vaccines for IBV. Applicants should have a strong background in molecular virology, biochemistry, and molecular genetics. Experience conducting experiments with poultry is desirable. Salary is commensurate with education and experience. The deadline for applications is September 1, 1997. A curriculum vitae plus the names of three referees should be submitted to Dr. Mark Jackwood, Department of Avian Medicine, College of Veterinary Medicine, University of Georgia, 953 College Station Road, Athens, GA 30602. The University of Georgia is an Equal Opportunity Employer.

Broiler Whole Bird Condemnation (Company)  
Live Production Cost

	Average Co.	Top 25%	Top 5 Co.'s
% Septox	0.301	0.214	0.259
% Airsac	0.192	0.118	0.133
% I.P.	0.150	0.066	0.046
% Leukosis	0.018	0.006	0.012
% Bruise	0.017	0.007	0.009
% Other	0.037	0.022	0.028
% Total	0.715	0.434	0.486
% 1/2 parts condemnations	0.516	0.289	0.290

Data for week ending 07/25/97.

(continued on page 5)

**AAAP Annual Meeting—Reno, Nevada**  
**July 21-24, 1997**

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**AWARDS**

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***Pfizer Award for Research Excellence:***

—Dr. Stan Kleven

***P.P. Levine Award:***

—Dr. Dennis Senne

***Pharmacia-Upjohn Achievement Award:***

—Dr. Deoki Tripathy

***Bayer-Snoeyenbos New Investigator Award:***

—Dr. Jean-Pierre Vaillancourt

***Reed-Rumsey Award:***

—Robert O' Connor

—Ali Akbar

***C.A. Bottorff Award:***

—Dr. Richard Davis

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**Eradication of Live F-strain—*Mycoplasma gallisepticum* Vaccine Utilizing Live ts-11 on a Multi-age Commercial Farm**

The purpose of the study was to determine the ability of ts-11 vaccine to replace F strain vaccine on a multiple-age commercial egg farm. All replacement pullets were vaccinated for one year on a farm which had been previously using F strain vaccine since 1979. Tracheal cultures were evaluated and MG isolates were characterized by AP-PCR to determine whether ts-11 had displaced F strain. One year post-vaccination, all MG isolates from vaccinated birds were ts-11. There was no evidence that ts-11 spread to unvaccinated flocks. Additionally, birds which were removed from a flock 83 weeks post-vaccination and challenged with the virulent R MG strain were well protected. These results indicate that ts-11 vaccination may be a tool for MG eradication.

—Abstract provided by Kathy S. Turner and Stanley H. Kleven

**Pathogenic Effects on Domestic Poultry of a *Mycoplasma gallisepticum* Strain Isolated from a Wild House Finch**

*Mycoplasma gallisepticum* has been isolated from wild house finches. The pathogenic effects of MG, finch strain (K4058), were compared to MG, R-strain. K4058 and virulent R-strain were introduced into chickens and turkeys. Lesions, reisolation of organism, serology, and clinical disease were compared. Milder air sac lesions and lower titers occurred in birds inoculated with K4058. Mortality and respiratory conditions occurred only in birds challenged with R-strain. The results were that *Mycoplasma gallisepticum* isolated from wild house finches may infect domestic poultry species but causes only mild disease and is less virulent than MG, R-strain.

—Abstract provided by Robert J. O'Connor, Kathy S. Turner, Tom P. Brown, Stanley H. Kleven, Luis B. Gomez, Joel L. Cline, and J.E. Sander

# Meetings, Seminars and Conventions

## 1997 August

**August 3-4: 1997 Poultry Science Association Annual Meeting and Expo**, The Georgia Center for Continuing Education, Athens, GA, USA. Contact: PSA Headquarters, 1111 North Dunlap Avenue, Savoy, IL 61874, USA. Phone (217) 356-3182. Fax (217) 398-4119. E-mail: psa@adsa.org.

**August 4-6: USPEA Information Systems Seminar**, Hilton Hotel, Myrtle Beach, S.C. Contact: U.S. Poultry and Egg Assn., 1530 Cooledge Road, Tucker, GA 30084-7303. Phone (770) 493-9401.

**August 4-8: 86th Annual Meeting of the Poultry Science Assoc.**, University of Georgia, Athens, GA, USA. Contact: PSA Meetings, 1111 North Dunlap Avenue, Savoy, IL 61874, USA. Phone (217) 356-3182. Fax (217) 398-4119. E-mail: psa@adsa.org.

**August 18-22: XIth Congress of the World Veterinary Poultry Association**, Budapest, Hungary. Contact: Organising Committee, XIth Congress of WVPA, Veterinary Medical Research Institute, Hungarian Academy of Sciences, P.O. Box 18, Budapest 1581, Hungary. Phone +36 1 252-2455. Fax +36 1 252--1069.

**August 21-22: USPEA Poultry Environmental Management Seminar**, Omni Hotel, Atlanta, GA. Contact: U.S. Poultry and Egg Association, 1530 Cooledge Rd., Tucker, GA 30084-7303. Phone (770) 493-9401.

## 1997 September

**September 1-5: VIlth International Coccidiosis Conference**, Oxford University's Keble College, Oxford, UK. Contact: Drs. M.W. Shirley and F. Tomley, Institute for Animal Health, Compton Laboratory, Compton, Nr Newbury, Berks RG20 7NN, UK. Phone +44 1635 577275/6, Fax +44 1635 577263.

**September 17-18: Poultry Production and Health Seminar**, Hilton Hotel Downtown, Atlanta, GA. Contact: U.S. Poultry and Egg Assn., 1530 Cooledge Road, Tucker, GA 30084-7303. Phone (770) 493-9401, Fax (770) 493-9257.

**September 17-19: 25th Poultry Science Symposium: Poultry Meat Science**, Bristol University, UK. Contact: Dr. I. Richardson, Division of Food Animal Science, University of Bristol, Langford, Bristol, BS18 7DY, UK. Phone +44 117 928 9291, Fax +44 117 928 9324.

**September 23-24: Missouri Poultry Federation Fall Convention**, Sheraton Hawthorn Park, Springfield, MO. Contact: Johanna Derda, Missouri Poultry Federation, 225 East Capitol Ave., Jefferson City, MO 65101. Phone (573) 761-5610.

**September 23-26: XV Latin American Poultry Congress**, Convention Center, Cancun, Mexico. Contact: Union Nacional de Avicultores, Medellin 325, Col. Roma, 06760, Mexico DF, Mexico. Phone +52-5 564-9322. Fax +52-5 584 -2594.

**September 24-25: Northeast Poultry Show**, Holiday Inn, Lancaster, PA. Contact: Pennsylvania Poultry Federation, 500 N. Progress Ave., Harrisburg, PA 17109. Phone (717) 652-7530.

**September 30-October 1: Georgia Poultry Conference**, Classic Center, Athens, GA. Contact: Dr. Dan Cunningham, University of Georgia, Dept. of Poultry Science, Four Towers Building, Athens GA 30602-4356. Phone (706) 542-1352.

## 1997 October

**October 8-10: NBC Annual Conference**, Mayflower Hotel, Washington, D.C. Contact: NBC, 1155 15th St., N.W., Washington, D.C. 20005-2707. Phone (202) 296-2622.

**October 9: Alabama Processor Workshop**, Birmingham, AL. Contact: Alabama Poultry and Egg Association, P.O. Box 240, Montgomery, AL 36101. Phone (334) 265-2732.

**October 15-17: National Meeting on Poultry Health and Processing**, Ocean City, MD. Contact: Sharon Webb, Delmarva Poultry Industry, Rd. 6, Box 47, Georgetown, DE 19947-9662. Phone (302) 856-9037.

**October 15-17: UEP Board Meeting**, Charleston, S.C. Contact: United Egg Producers, 1303 Hightower Trail, Suite 200, Athens, GA 30350. Phone (404) 587-5871.

**October 20-22: Fourth International Symposium on Turkey Reproduction**, sponsored by North Carolina State University, Department of Poultry Science, Jane S. McKimmon Center, NCSU, Raleigh, NC. Contact: Jesse L. Grimes. Phone (919) 515-5406. Fax (919) 7070.

**October 22-23: Twenty-first Annual North Carolina Turkey Industry Days Conference**, Jane S. McKimmon Center, NCSU, Raleigh, NC. Contact: Jesse L. Grimes. Phone (919) 515-5406. Fax 515-7070.

**October 23: Albin S. Johnson Memorial Golf Tournament**, Championship Walker Course, Clemson, S.C. Contact: S.C. Poultry Federation, AT&T Building, Suite 1220, 1201 Main Street, Columbia, SC 29201. Phone (803) 748-1283.

**October 24-25: U.S. Poultry Women in Management Seminar**, Chattanooga, TN. Contact: U.S. Poultry & Egg Association, 1530 Cooledge Road, Tucker, GA 30084-7303. Phone (770) 493-9401.

**October 24-25: Kentucky Poultry Federation Annual Meeting**, University Plaza Hotel, Bowling Green, KY. Contact: Carole Knoblett, Kentucky Poultry Federation, P.O. Box 21829, Lexington, KY 40522-1829. Phone (606) 266-8375.

**October 29-30: N.C. Broiler Breeder & Hatchery Management Conference**, Statesville, N.C. Contact: Mike Wineland, Extension Poultry Science, N.C. State University, Box 7608, Raleigh, NC 27695-7608. Phone (919) 515-5529.

## 1997 November

**November 4-6: Arkansas Processors Workshop**, Clarion Inn, Fayetteville, AR. Contact: Judy Kimbrell, Arkansas Poultry Federation, P.O. Box 1446, Little Rock, AR 72203. Phone (501) 375-8131.

**November 6-7: AEB Meeting**, Nashville, TN. Contact: American Egg Board, 1460 Renaissance Drive, Park Ridge, IL 60068. Phone (708) 296-7043.

**November 13: U.S. Poultry Grain Forecast/Economic Outlook**, Atlanta, GA. Contact: U.S. Poultry & Egg Assn., 1530 Cooledge Road, Tucker, GA 30084-7303. Phone (770) 493-9401.

**November 7-19: Information and Knowledge Transfer in the Poultry Industry**, Utrecht, The Netherlands. Contact: Ir H.H.M. Zeelen, Jodichendreef 30, 3984 JT Odijk, The Netherlands. Phone/Fax +31 30 656 3283.

**November 18-21: VIV-Europe International Trade Fair on Intensive Animal Production**, Jaarbeurs, Utrecht, The Netherlands. Contact: Royal Dutch Fairs, P.O. Box 8500, 3505 RM Utrecht, The Netherlands. Phone +31 30 295 59 11, Fax +31 30 2940379.

# Call for News From the Poultry Professionals

*In order to make this a useful information tool for you and your colleagues, we need your help. Please take a moment to write down industry news or important meeting dates relating to your organization. Please be sure to include a contact name, phone and fax number for those readers needing additional detail. We would also like to initiate a personals column that would include, births, marriages, awards, etc. Thank you for your contributions.*

**Important dates or news from:**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Organization: \_\_\_\_\_

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**Please fax this page to Sue Clanton, Department of Avian Medicine, University of Georgia, at (706) 542-5630.**

**Also, comments may be sent to [avianmed@uga.cc.uga.edu](mailto:avianmed@uga.cc.uga.edu) via e-mail.**

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