



The Poultry Informed Professional

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“Animal Waste and the Environment — Nutrient Management”

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A Public Relations Nightmare Waiting to Happen

Animal waste management, litter management, dead bird disposal and composting mortality are terms that can be placed under the umbrella of nutrient management. As we move into the next century, the poultry industry will be facing some new challenges that will alter how we do our jobs. We will be required to develop best management plans or practices that include not only animal waste management, but also on farm food safety and animal welfare.

In regard to animal waste management, the U.S. Natural Resources Conservation Services (NRCS) has established a set of standards and rules. The minimum elements of a nutrient management plan would include:

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E-Mail Notice

We are currently organizing our system to enable us to e-mail the Poultry Informed Professional newsletter. If you would like to receive your newsletter via e-mail, please fax your name and e-mail address to Sue Clanton at (706) 542-5630.

Broiler Performance Data (Region)
Live Production Cost

	SW	Midwest	Southeast	Mid-Atlantic	S-Central
Feed cost/ton w/o color (\$)	123.60	115.98	129.85	130.24	127.96
Feed cost/lb meat (¢)	11.90	11.45	12.71	13.24	12.62
Days to 4.6 lbs	46	45	45	45	45
Med. cost/ton (¢)	2.82	1.98	3.45	3.15	2.74
Chick cost/lb (¢)	3.90	3.63	3.77	3.66	3.55
Vac-Med cost/lb (¢)	0.05	0.02	0.10	0.10	0.11
WB & 1/2 parts condemn. cost/lb	0.22	0.24	0.27	0.26	0.33
% mortality	4.04	5.63	4.75	5.70	5.29
Sq. Ft. @ placement	0.80	0.75	0.80	0.79	0.86
Lbs./Sq. Ft.	5.93	6.94	6.28	6.63	6.39
Down time (days)	11	7	9	10	10

Data for week ending 7/24/99

Animal Waste and the Environment

Continued from page 1

1. Evaluation of proper storage, including:
 - the length of time for litter storage
 - the type of facility used for storage
 - the location of any storage facility
2. Easy access and gently sloping terrain that minimizes site grading
3. Maintenance of a 100 foot buffer strip from wet areas, drainage ditches, streams, rivers, ponds, lakes, or other surface water bodies.
4. Any permanent structure for litter/manure storage should have a base or floor of concrete or impermeable clay.
5. Temporary storage for litter/manure should be covered with plastic or similar material to prevent run-off.
6. Litter stored for 3 months or more should be kept in a permanent storage facility.
7. Litter utilized in a land application program which is applied directly from a poultry production house during clean-out is not required to have storage capability.
8. Land application of litter should only be applied in accordance with scientific standards and methods adapted by NRCS, ie. soil testing, season of year, crops grown in field, etc.
9. Litter/manure should be sampled within 90 days of land application.
10. Transportation of litter/manure must be done in a covered vehicle.
11. Records must be kept of the amount of litter, where it was applied, etc.
12. All poultry producers/growers should be properly trained so they can develop and implement a nutrient management plan.

The public perception of the poultry industry and poultry meat can be negatively impacted if we ignore these impending issues of nutrient/animal waste management, animal welfare and live productions' impact on food safety. It is our responsibility as professionals (veterinarians, nutritionists, production managers) in this industry to keep pace with the science of each of these areas and help our companies and our industry to be proactive. It has taken more than 30 years for us to create the image of poultry meat as a healthy wholesome protein source for people. It will only take 1 or 2 negative images on TV of an environmental problem or a major problem with foodborne illness or a welfare issue to result in us losing this positive image. Please keep yourself and your company informed of the latest scientific knowledge regarding all of these issues.

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

	Average Co.	Top 25%	Top 5 Cos.
Feed cost/ton w/o color (\$)	127.62	122.58	120.54
Feed cost/lb meat (¢)	12.53	11.46	11.24
Days to 4.6 lbs	45	46	47
Med. cost/ton (¢)	2.89	1.89	2.05
Chick cost/lb (¢)	3.79	3.71	3.56
Vac-Med cost/lb (¢)	0.09	0.05	0.07
WB & 1/2 parts condemn. cost/lb	0.26	0.16	0.16
% mortality	4.96	3.64	3.08
Sq. Ft. @ placement	0.80	0.78	0.75
Lbs./Sq. Ft.	6.28	6.02	6.17
Down time (days)	10	10	11

Data for week ending 7/24/99

Broiler Whole Bird Condemnation (Region)

	SW	Mid-West	S. East	Mid-Atlantic	S. Central
% Septox	0.290	0.425	0.197	0.346	0.290
% Airsac	0.103	0.060	0.307	0.170	0.386
% I.P.	0.044	0.058	0.238	0.119	0.193
% Leukosis	0.005	0.003	0.011	0.048	0.003
% Bruise	0.013	0.008	0.017	0.011	0.014
% Other	0.015	0.012	0.018	0.018	0.014
% Total	0.470	0.565	0.788	0.712	0.900
% 1/2 parts condemnations	0.405	0.417	0.299	0.339	0.414

Data for week ending 7/24/99

Animal Waste and the Environment

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For additional information on nutrient management and the environment or any of the following bulletins, contact Dr. Dan Cunningham, Extension Poultry Scientist, University of Georgia. Email:dcunningham@uga.edu

- Composting Poultry Mortality
- Animal Waste and the Environment
- Georgia's Agricultural Water Regulations
- Structures for Broiler Litter Manure Storage
- Broiler Production, Georgia Farm Assessment System

Summary of Meeting Reports at the 1999 AAAP/AVMA Convention

Avian Pneumovirus Infection on Turkeys

J. Faris, University of Minnesota, presented research on "Avian Pneumovirus Infection of Turkeys" at the 1999 AAAP /AVMA convention held in New Orleans, Louisiana, July 12-14. Avian Pneumovirus (AVP) has become an important disease in turkeys in the United States since the AVP/Turkey/ Colorado isolate was reported in 1997. This research was conducted to reproduce the disease under experimental conditions. Clinical signs were observed between 2 and 7 days, and gross lesions between 4 and 10 days post-inoculation. However, the virus was recovered from only turbinates between 4 and 6 days. This finding correlates with similar research done in different countries around the world. No isolation from chickens has been reported yet in the United States, although the serotype A and B viruses have been incriminated as pathogens in chickens in other countries. It is important to remember that an early sampling of turbinates and portions of the upper trachea should be taken whenever facing a highly contagious upper respiratory tract infection in both turkeys and chickens. Late sampling (more than 7 days after the first clinical signs are noticed) normally results in unsuccessful isolation attempts.

*- Summary by Miguel Ruano, DVM
Master of Avian Medicine Student
The University of Georgia*

Comparison of Nipple and Bell-type Drinkers during the Brooding of Commercial Tom Turkeys

Dr. David Rives of Prestage Farms, Clinton, N.C., reviewed two brooder houses and four grow-out houses on a 14-month trial comparing two types of drinker systems. Approximately 287,500 poults with each brooder house containing equal numbers of poults.

There were 1,104 nipple drinkers/house and 72 bell drinkers/house that were evenly distributed throughout the houses, and initially, supplemental drinkers were used to facilitate adjustment to the nipple drinkers.

Nipple drinkers resulted in an improvement in weight gain of 0.73 lbs., better feed efficiency by 0.01%, and therefore a reduction of production costs by \$0.0033/lb. Initially, poults on bell drinkers have heavier weights, but by 10-12 weeks, the poults in the nipple drinker house surpassed the bell drinker poults in body weight. Further advantages of nipple drinkers include labor savings due to lower maintenance costs, improved litter conditions due to drier litter under nipple drinkers, and improved bird health from reduced disease transmission. However, movement of poults becomes necessary at no later than 7.5 weeks due to lack of adequate water volume provided through the nipple drinkers. Perhaps an ideal scenario is to have bell drinkers available in the brooder house to use in addition to nipple drinkers should a need for additional water volume arise.

*- Summary by William A. Stanley, DVM
Master of Avian Medicine student
The University of Georgia*

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Summary of Meeting Reports at the 1999 AAAP/AVMA Convention

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Evaluating Passive Immunity to Infectious Bursal Disease in Commercial Broilers

Dr. Eric Lovell of Maine Biological Laboratories stated, "An effective method for evaluation of progeny infectious bursal disease protective immunity is difficult." The study evaluated two methods of assessing passive immunity, histology scoring and bursa to body weight ratio.

Ten groups of 50 one-day-old broilers were subdivided into two groups of 20 and one group of 10. The groups of 20 were given a standard IBD vaccine and Delaware Variant E, respectively, and the group of 10 as controls. All birds were challenged at 2 weeks of age with IBD virus.

After challenge, all birds were checked for bursa to body weight ratio $\{(bursa\ wt.\ in\ grams/body\ wt.\ in\ grams)1000\}$, and were scored histologically on a scale of 1 to 4 (1 = no lesion, 4 = necrosis consistent with IBD).

Results were indicative of a lack of correlation between bursa/body weight and histological scoring (i.e. as B/BW decreased, histology scores did not always increase and vice versa). Although these two methods are a useful tool in evaluation of passive immunity, progeny challenge remains the best means of determining progeny protection. Neither histological scoring nor B/BW ratio should be used individually, but together in combination with progeny challenge to best assess passive immunity to IBD.

- Summary by William A. Stanley, DVM
Master of Avian Medicine student
The University of Georgia

Broiler Whole Bird Condemnation (Company)

	Average Co.	Top 25%	Top 5 Co.'s
% Septox	0.297	0.223	0.182
% Airsac	0.208	0.057	0.096
% I.P.	0.125	0.041	0.083
% Leukosis	0.019	0.006	0.005
% Bruise	0.013	0.015	0.019
% Other	0.016	0.005	0.003
% Total	0.679	0.349	0.388
% 1/2 parts condemnations	0.373	0.278	0.239

Data for week ending 7/24/99



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

the corresponding week a year earlier. Average hatchability for chicks hatched during the week was 82 percent.

Broiler Chicks Placed Up 5 Percent

According to the most recent National Agricultural Statistic Service (NASS) report, broiler growers in the 15-State program placed 143 million chicks for meat production during the week ending July 24, 1999. Placements were up 5 percent from the comparative week in 1998. Cumulative placements from January 3, 1999 through July 24, 1999 were 4.20 billion, up 3 percent from the same period a year earlier.

Broiler Eggs Set in 15 Selected States Up 3 Percent

Commercial hatcheries in the 15-State weekly program set in incubators 182 million eggs during the week ending July 24, 1999. This was up 4 percent from the eggs set during the corresponding week a year earlier. Average hatchability for chicks hatched during the week was 82 percent.

June Egg Production Up 4 Percent

U.S. egg production totalled 6.72 billion during June 1999, up 4 percent from the 6.46 billion produced in 1998. Production included 5.63 billion table eggs and 1.09 billion hatching eggs, of which 1.02 billion were broiler-type and 67.0 million were egg-type. The total number of layers during June 1999 averaged 320 million, up 3 percent from the total average number of layers during June 1998. June egg production per 100 layers was 2,104 eggs, up 1 percent from 2,088 eggs in June 1998.

All layers in the U.S. on July 1, 1999, totaled 320 million, up 3 percent from a year ago. The 320 million layers consisted of 259 million layers producing table or commercial type eggs, 57.3 million layers producing broiler-type hatching eggs, and 2.81 million layers producing egg-type hatching eggs. Rate of lay per day on July 1, 1999, averaged 70.1 eggs per 100 layers, up 1 percent from the 70.0 a year ago.

Laying flocks in the 30 major egg producing States produced 6.35 billion eggs during June, up 4 percent from June 1998. The average number of layers during June, at 302 million, was up 3 percent from a year earlier.

Egg-Type Chicks Hatched Up 3 Percent

Egg-type chicks hatched during June totaled 40.6 million, up 3 percent from June 1998. Eggs in incubators totaled 31.0 million on July 1, 1999, down 3 percent from a year ago.

Domestic placements of egg-type pullet chicks for future hatchery supply flocks by leading breeders totaled 187,000 during June 1999, down 47 percent from June 1998.

Broiler Hatch Up 4 Percent

The June 1999 hatch of broiler-type chicks, at 744 million, was up 4 percent from June of the previous year. There were 628 million eggs in incubators on July 1, 1999, up 3 percent from a year earlier.

Leading breeders placed 7.04 million broiler-type pullet chicks for future domestic hatchery supply flocks during June 1999, up 2 percent from June 1998.

Poultry Production Increases Continue

According to the latest Economic Research Service (ERS) Report, net returns for broiler, turkey and egg processors were relatively attractive in 1998 and are expected to remain attractive during 1999, encouraging increased production. Sustained feed costs at below year-earlier levels for 1999 will offset some of the impact of lower prices for broilers and eggs, and will allow positive returns for turkeys as prices increase slightly.

Broiler Production Increases To Continue

Broiler production is expected to rise 6 percent in 1999 as increased producer profitability in 1998 made production increases more attainable and attractive. Producer net returns continue quite strong as lower feed costs offset lower whole bird prices in the second quarter. In response, pullet hatch for potential placement in the hatchery supply flock was 10 percent higher than a year ago in May and has been 7 percent larger for the period 7-15 months earlier, which is the approximate time when the birds that are in the hatchery supply flock now would have been hatched. The broiler-type hatching egg production flock was 3 percent larger than a year ago on June 1.

Turkey Net Returns Stay Positive

Reductions in feed costs (23 percent below a year ago for the first half of 1999) and slightly stronger turkey prices kept producers above break-even, compared with losses of over 8 cents per pound in the first half of 1998. Returns are expected to continue stronger than a year ago through the rest of 1999 as turkey prices strengthen.

Production is expected to be nearly unchanged in 1999. Total domestic turkey supplies will be about unchanged from last year as lower exports and smaller ending stocks offset the lower carryin stocks. Per capita supplies are expected to be slightly lower. Prices for whole birds are expected to be about 6 cents higher than a year ago at wholesale and nearly unchanged at retail for 1999. In 2000 prices are expected to weaken slightly with increased production. Breast meat prices are slightly higher than a year ago while drumstick and wing prices have been 20-40 percent lower than a year ago in recent months. Weakness in the export markets has kept pressure on drumstick and wing prices.

Egg Prices Volatile

Hot weather in early July has reduced production of large eggs and brought a sudden increase in large egg prices. New York large wholesale egg prices had fallen to 46 cents per dozen in late June but have recovered to above 80 cents per dozen in mid-July. Prices for medium size egg have changed very little as the hot weather causes hens to produce fewer and smaller eggs, leading to an increase in medium egg supplies at the expense of large eggs. Average egg prices for July are expected to be below a year ago even though they are peaking at higher levels.

Egg production is expected to increase about 3 percent in 1999. Increasing production is expected to continue pressuring egg prices with 1999 wholesale prices forecast about 7 cents per dozen lower and prices in 2000 about 3 cents lower than the previous year. Declining feed costs are expected to offset some of the price decline and keep egg production profitable for most producers in 1999 and 2000.

Broiler Trade To Remain Lackluster

U.S. broiler exports for 1999 are now estimated at 4.6 billion pounds, up 100 million from the previous estimate and just slightly lower than 1997 and 1998 exports. The estimate was raised after exports over the first four months of 1999 were stronger than earlier expected. In April, shipments totaled 453 million pounds, the third largest month on record. However, while export volume has strengthened, prices for most export products have remained depressed.

The strength in exports has been chiefly due to large shipments to Asia, the Baltics (Latvia and Estonia), and the NIS countries. Over the last several years Hong Kong has been the second largest market for U.S. broiler products, after Russia. Through May exports to Hong Kong totaled 530 million pounds, up 55 percent from the same period in 1998, while direct shipments to Russia were much lower (170 million pounds, down 80 percent), and exports to Latvia and Estonia rose rapidly. Exports to Latvia and Estonia have totaled 379 million pounds, nearly double the previous year. Broiler exports to NIS countries are also up strongly. While the combined exports to Russia, Latvia, and Estonia are still below those of previous years, the forecast for broiler exports has risen considerably since initial adjustments were made for the collapse of the Russian economy in the third quarter of 1998.

Meetings, Seminars and Conventions

1999 August

Aug. 10-12: IPA Fall Festival, Sheraton Four Points Hotel, Des Moines, Iowa. Contact: Iowa Poultry Association, 535 E. Lincoln Way, P.O. Box 704, Ames, Iowa 50010. Phone 515-232-2103.

Aug. 8-11: Poultry Science Association (PSA) Annual Meeting, Holiday Inn, Springdale, Arkansas, USA. Contact: PSA Headquarters, 1111 Dunlap Ave., Savoy, Illinois 61874, USA. Fax: +1 217 398 4119.

Aug 15-19: 12th WPSA European Symposium on Poultry Nutrition, Veldhoven, The Netherlands. Contact: Secretariat WPSA 12 European Symposium on Poultry Nutrition 1999, c/o Wageningen Agricultural University, Animal Nutrition Group, Dr. Rene P. Kwakkel, P.O. Box 338, 6700 AH Wageningen, The Netherlands. Fax: +31 317 4844260.

Aug. 19-20: North Carolina Federation Annual Meeting & Banquet, Joseph S. Koury Convention Center, Greensboro, N.C.; Ed Woodhouse, North Carolina State Univ., Scott Hall/Campus Box 7608, Raleigh, N.C. 27695.

Aug. 20-25: XXI World's Poultry Congress and 6th International Marek's Disease Symposium, Montreal, Canada. Contact XXI World's Poultry Congress Secretariat, c/o Events International Meeting Planners, Inc., 759 Victoria Square, Suite 300, Montreal, Quebec, Canada H2Y 2J7. Phone: 514-286-0855. Fax: 514-286-6066. E-mail: info@eventsintl.com

1999 September

September 19-23: European Symposia on Quality of Poultrymeat, Eggs and Egg Products, Bologna, Italy. Contact: Chairman of Organising Committee, Professor Achille Franchini, University of Bologna, Via San Giacomo 9, 40126 Bologna, Italy. Fax: +39 (0) 51 251936.

September 21: Incubation & Fertility Research Group (WPSA Working Group 6 (Reproduction) 1999 Meeting, Tours, France.

Contact: Dr. Glenn Baggott, Department of Biology, Birkbeck College, University of London, Malet St. London WC1E 7HX, UK. Fax: +44 (0) 141 631 6246.

September 21-24: 'Peru 99', XVI Latin American Poultry Congress, Lima, Peru. Contact: Asociacion Peruana de Avicultura, Esmeralda 255 Chacarilla, San Borja, Peru. Fax: +51-14 372 1538.

September 22-24: International Conference on Bird Reproduction, Vinci International Congress Centre, Tours, France. Contact: INRA, Avian Research Station, National Institute for Agronomic Research, 37380 Nouzilly, France.

September 25-28: NAAC Annual Meeting, North Raleigh Hilton Hotel, Raleigh, N.C. Contact: North American Agromedicine Consortium, c/o W. Gregory Cope, Department of Toxicology, North Carolina State University, Box 7633, Raleigh, N.C. 27695. Phone: 919-515-5296.

September 23-29: 26th World Veterinary Congress, Lyon, France. Contact: Mondial Vet 1999, CNVSPA, 40 rue de Berri, F75008 Paris, France. Fax: +33 (0) 153 83 91 69.

September 28: WESTVET 10, Western Meeting of Poultry Clinicians and Pathologists, Post Hotel, Lake Louise, Alta. Canada. Contact: Dr. Stew Ritchie, Phone: (604) 854-6600, Fax: (604) 854-6100,

e-mail: cpcltd@uniserve.com

September 28-29: Georgia Poultry Conference, The Classic Center, Athens, GA. Contact: Georgia Poultry Federation, P.O. Box 763, Gainesville, GA 30503. Phone: 770-532-0473; or Extension Poultry Science, University of Georgia, Athens, GA 30602. Phone: 706-542-1325.

1999 October

Oct. 3-5: North Central Avian Disease Conference, Minneapolis

Airport Hilton Hotel, Minneapolis, Minn. Contact: Dr. Dan Shaw, program chairman, Phone: 612-625-4256; or Dr. Dave Halvorson, secretary-treasurer, Phone: 612-625-5292.

Oct. 13-14: N.C. Turkey Industry Days Conference, Brownstone Hotel, Raleigh, N.C. Contact: Jesse L. Grimes, Extension turkey specialist, North Carolina State University, Scott Hall/Campus Box 7608, Raleigh, N.C. 27695. Phone: 919-515-5406

Oct. 10-13: Eleventh Australian Poultry & Feed Convention, Royal Pines Resort, Gold Coast, Australia. Contact: The Convention Secretary, PO Box 1384, North Sidney NSW 2059, Australia. Fax: +61 2 9925 0627.

Oct. 17-20: Workshop on Metabolic Disorders in Poultry, Izmir, Turkey. Contact: Congress Secretariat, Ege University, Faculty of Agriculture, Dept. of Animal Science, 35100 Izmir, Turkey. Fax: +90 232 388 18 64.

Oct. 20-22: National Meeting on Poultry Health & Processing, Sheraton Fountainbleau Hotel, Ocean City, Maryland, USA. Contact: Sharon Webb, Delmarva Poultry Industry, Inc., RD 6, Box 47, Georgetown, DE 19947-9575, USA. Fax: +1 302-856-1845.

Oct. 31-Nov. 2: 33rd Annual UK Poultry Industry Conference, Stakis Blackpool Hotel, Blackpool, Lancashire, U.K. Contact: Tony Warner, Sec. 011-44-1952-605680.

1999 November

Nov. 3-5: Livexpo Shanghai '99, Shanghai International Exhibition for Production & Processing of Livestock and Poultry, Shanghai International Exhibition Center, P.R. China. Contact: Intex Shanghai Co., Ltd, 88 Loushanguan Rd., Shanghai 200335, P.R. China. Dr. David Hong, Miss Lisa Chen. Phone: +86 21 65755800; Fax: +86 21 62757210