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The Poultry Informed Professional

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WELCOME BACK

I am pleased to begin republishing The Poultry Informed Professional newsletter. It is also with great pleasure that I welcome Dr. Pedro Villegas as the co-editor.

We also welcome the Primary Breeder Veterinarians as the sponsors for 2003-2004. This issue marks the beginning of the new format which is to publish each issue with more information and articles on an every other month basis. Please do not hesitate to let us know how we are doing. We want to give you the most useful information as possible and we can only do that with your feedback. You can email us at: sclanton@uga.edu.

Sincerely,

Charles L. Hofacre

Broiler Performance Data (Region)
Live Production Cost

	SW	Midwest	Southeast	Mid-Atlantic	S-Central
Feed cost/ton w/o color ($)	146.10	134.50	148.66	152.97	146.14
Feed cost/lb meat (¢)	13.22	12.14	13.48	14.70	13.37
Days to 4.6 lbs	43	42	42	43	42
Chick cost/lb (¢)	4.02	3.74	3.95	3.56	3.82
Vac-Med cost/lb (¢)	0.04	0.0	0.4	0.05	0.05
WB & 1/2 parts condemn. cost/lb	0.16	0.13	0.11	0.19	0.15
% mortality	3.82	3.25	3.28	4.23	3.35
Sq. Ft. @ placement	0.81	0.79	0.82	0.83	0.84
Lbs./Sq. Ft.	6.46	6.90	6.68	7.26	6.58
Down time (days)	13	10	12	13	13

Data for week ending 09/27/03

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TECHNICALLY SPEAKING

COMBATING COCCIDIOSIS IN BROILER BREEDERS

How many times have you heard someone in the poultry industry say, "We've been doing it this way for 25 years?"

Even if some things have remained the same, 25 years has meant a lot of change in the broiler industry, especially regarding genetic progress. Consider broilers in 1976. It took about 65 days to reach 4.4 lbs (2 kg) body weight. Today, broilers reach that weight in only 35 days (Figure 1). Broilers today are also more feed efficient: 1.70 now vs 2.50 [1976] (Figure 2).

Improvements in efficiency due to genetic progress have a price, however. It's more difficult to manage breeders now because they grow so fast and are so feed-efficient. If anything limits their early growth, such as poor chick quality, poor brooding conditions or disease, the result is a flock with poor body weight and uniformity of frame size.

Impact on growth

Coccidiosis is one disease that can greatly affect growth at its most critical stage for frame size development.

In today's highly competitive broiler industry, we strive to capitalize our pullets by feeding the least amount necessary, which places emphasis on frame size. The majority of skeletal growth in broiler breeders occurs in the first 5 to 6 weeks of life (2). If birds experience either clinical or subclinical coccidiosis during this period, their frame size — and thus flock uniformity — will be greatly affected (Figure 3).

In a flock with poor uniformity, hens that are smaller become timid and fall even farther behind. It is easy for us to see the impact on egg production, but we often don't realize that roosters in the same house with pullets are also experiencing coccidiosis.

Coccidiosis can become an even greater problem in male chicks since they usually are smaller than females; if they don't surpass female weight by 50% by 5 weeks of age, we risk of having poor hatchability for the life of the flock.

The Biology of Coccidia

In general, the life cycle of all coccidia are similar. The bird eats a sporulated oocyst, then sporozoites are released by the grinding activity of the gizzard and penetrate the cells of the intestinal mucosa. This begins the asexual cycle of development called schizogony. Next comes the sexual phase, resulting in the release of oocysts in the bird's feces. The entire process takes approximately 7 days (5). By day 14, after initial infection, the production of oocysts usually are diminishing and ceases around 18 to 20 days. Most damage to the intestine occurs early in the parasite's life cycle during schizogony.

Charles L. Hofacre, DVM, MAM, PhD
Department of Avian Medicine
College of Veterinary Medicine
The University of Georgia

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Broiler Whole Bird Condemnation (Region)

	SW	Mid-West	S. East	Mid-Atlantic	S. Central
% Septox	0.195	0.251	0.136	0.247	0.157
% Airsac	0.055	0.028	0.047	0.093	0.038
% I.P.	0.028	0.026	0.025	0.019	0.047
% Leukosis	0.001	0.001	0.001	0.011	0.003
% Bruise	0.006	0.003	0.006	0.006	0.008
% Other	0.012	0.002	0.010	0.012	0.007
% Total	0.297	0.312	0.224	0.389	0.259
% 1/2 parts condemnations	0.401	0.347	0.277	0.384	0.405

Data for week ending 09/27/03

Broiler Performance Data (Company) Live Production Cost

	Average Co.	Top 25%
Feed cost/ton w/o color ($)	147.06	143.43
Feed cost/lb meat (¢)	13.40	13.08
Days to 4.6 lbs	43	41
Chick cost/lb (¢)	3.97	3.27
Vac-Med cost/lb (¢)	0.04	0.02
WB & 1/2 parts condemn. cost/lb	0.15	0.18
% mortality	3.56	3.17
Sq. Ft. @ placement	0.81	0.81
Lbs./Sq. Ft.	6.62	6.76
Down time (days)	12	13

Data for week ending 09/27/03

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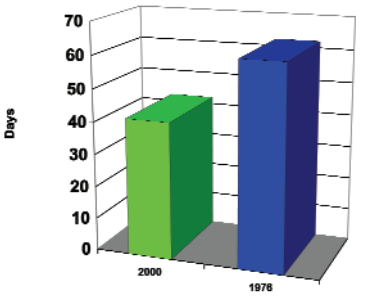
Figure 1. Days to Grow Broilers to 2 Kg (4.4 pounds) Body Weight



(Data courtesy Avigen North America, Huntsville, AL.)

Eimeria Species

The *Eimeria* species that affect chickens are *E. acervulina, E. maxima, E. tenella and E. necatrix* as well as *E. brunette, E. praecox,* and *E. mivati.* Those of particular importance to breeder pullets and roosters are *E. acervulina, E. maxima, E. tenella* and *E. necatrix.*

Flocks uniformity will be greatly affected if birds experience clinical or subclinical coccidiosis from 5 to 6 weeks of life.

"Control of coccidiosis in breeder pullets and roosters can be summarized in just one word: immunity."

The two species that cause intestinal hemorrhage and pullet death are *E. tenella and E. necatrix. E. tenella* is also the species that causes bloody droppings, along with mortality; it is often the easiest for flock supervisors to recognize due to the characteristic blood-filled ceca of dead pullets.

E. necatrix usually does not cause many problems until after 6 weeks of age because it does not compete as well against other coccidia. This means that mortality caused by *E. necatrix* usually begins around 7 to 9 weeks of age; necropsy signs of white/red or white/black (salt and pepper) are seen in the mid intestine. It is also important to know that *E. necatrix* is the least immunogenic of the chicken coccidia. This will become more important when we discuss control and immune response.

Perhaps the more economically important coccidia species the world over for pullet and rooster frame-size and body uniformity are those that do not cause death but have an impact on the bird's ability to absorb nutrients from feed. The most commonly recognized are *E. acervulina* and *E. maxima.* The signs of these two species are not as obvious, so their effects are often overlooked until it is too late. Therefore, it is important to necropsy a few birds during the first 3 to 4 weeks of a pullet flock's life to determine levels of these two types of coccidia. *E. acervulina* will cause white stripes in the duodenum, while *E. maxima* may cause a ballooning of the intestine with orange mucus in the lumen (5).

There are 3 species of coccidia that are difficult to identify in pullets when performing a routine necropsy of mortality and these are *E. mitis, E. praecox,* and *E. brunette. E. mitis* is normally found in the lower small intestine and produces rather indistinct lesions. *E. praecox* also does not have prominent lesions and is also often missed at necropsy. Most of the infection by *E. praecox* is in the duodenum and may result in pinpoint hemorrhages. *E. brunette* can also affect the lower small intestine usually around the yolk stalk. It does not produce any recognizable gross lesions. All 3 of these species are generally only diagnosed by microscropy (5).

Coccidiosis Control

Control of coccidiosis in breeder pullets and roosters can be summarized in just one word: ***immunity.*** It does not matter if we are using a drug or vaccine: in both instances, the goal is to allow hens to develop life-long, lasting immunity to coccidia by 12 weeks of age (1). To accomplish this goal, we must look for ways to maximize the immune response without causing a negative impact on the birds' frame size and uniformity.

Factors that affect the development of immunity are management conditions such as litter moisture, partial vs. full-house brooding and a feed restriction regimen (skip-a-day feeding). We also need to be aware of other dis-

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ease or live vaccine challenges, particularly those that directly impact the immune response, such as infectious bursal disease virus, Marek's disease, chicken anemia virus and exposure to mycotoxins in feed.

Chemotherapy. A variety of drugs will allow enough coccidia to complete their life cycle for development of an adequate immune response in the pullet/rooster. We often refer to this partial suppression as "leakage."

Coccidiostats are broken into two broad classes: chemicals and ionophores. Chemical coccidiostats that can be used to allow immunity to develop (leakage) in replacement breeders are amprolium, amprolium with ethopabate, zoalene and clopidol in the U.S. However, in Europe, many of these products are no longer available.

Amprolium has been used on many pullet farms for about 40 years, so there is a significant level of coccidia that have become resistant to this drug. Amprolium is very good against the hemorrhage-producing coccidia *E. tenella* and *E. necatrix* and it has some activity against *E. maxima.* When you add ethopabate, you broaden effectiveness to include control of E. acervulina (4). Clopidol and zoalene are very safe for use in pullets, but resistance develops quickly. Neither of these drugs has been used extensively so they may be a good choice for control of coccidiosis in replacement breeders.

The ionophore coccidiostats, such as monensin and salinomycin, are effective against all of the *Eimeria* species of concern in replacement pullets/roosters. Because they are coccidiocidal, they are used at lower doses than in broilers to allow immunity to develop.

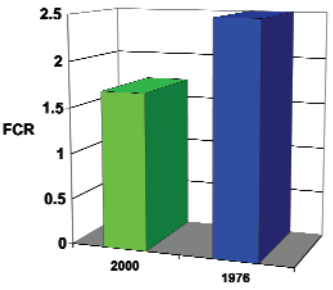
Vaccination. Resistance to any coccidiostat develops on a farm with continuous use of the drug, which selects for those *Eimeria* that can survive. Over time, the proportion of coccidia that are resistant to the drugs increases, and the result is the development of more severe lesions which can lead to poor uniformity and adversely affect frame size. The alternative is to rotate from the coccidiostat to a live vaccine containing drug-sensitive strains.

"Resistance to any anticoccidal drug develops on a farm with continuous use of the drug, which selects for those Eimeria *that can survive."*

Coccidiosis vaccines have two advantages. Over time, the farm's population of coccidia reverts back to being sensitive to the coccidiostats while the birds are vaccinated (3). The vaccine also provides a "controlled exposure." This means you know exactly when the birds should experience the greatest amount of coccidia lesions, which produces immunity. In other words, you know when to keep a close watch and provide support to the birds if needed. This can be especially important in pullet flocks that are reared in concrete floored houses or on new litter, because the exposure may be delayed for these birds. The key to vaccination is, it provides all the coccidia species earlier in the birds life than is seen with natural exposure and results in a more uniform development of immunity.

There are two types of live coccidia vaccines available worldwide: attenuated vaccines and controlled exposure vaccines. In the United States, only controlled exposure vaccines are available. This means that the coccidia vaccine given at one day of age has fully virulent sporulated oocysts and the birds when vaccinated at 1 day of age will experience peak oocyst production at about 7 to10 days of age until about 28 days (6). Outside the U.S. there are 2 attenuated strains that are available for use in pullets. Both of these prod

Figure 2. Broiler Feed Efficiency Change Over Time



(Data courtesy Avigen North America, Huntsville, AL.)

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ucts produce a good immune response and may also produce fewer lesions and subsequently less affect on the growing pullets than is seen with the controlled exposure vaccines.

It should be remembered that the pullets will be experiencing their reaction to *E. necatrix* later (6-12 weeks of age) than is seen with the other coccidia because it is less immunogenic. This more predictable reaction to *E. necatrix* is another advantage to using the coccidia vaccines because this reaction also normally occurs very uniformly and earlier than is seen with coccidiostat programs.

Keep in mind that death and bloody droppings are not the only signs to watch for during this period of "vaccine reaction." Reaction to *E. acervulina* and *E. maxima* can affect the pullet's ability to absorb vitamins, especially fat-soluble A, D, E and K. This is one reason that rickets may develop and that an increase may be seen in leg problems around 4 weeks of age. One solution is to routinely add vitamins to the pullets drinking water during the vaccine reaction period.

Treatment

Treatment may be necessary for various reasons. One such scenario occurs when the coccidiostat program begins to fail due to an increase in the number of resistant oocysts. Another scenario occurs when there is an extreme challenge before immunity has had time to develop as might occur if the litter becomes wet or there is a delay in the development of immunity after vaccination. Remember, the choice to treat may slow or even stop the development of the immune response, so the flock must be watched closely in the future for further coccidiosis. It should be noted that routine administration of anticoccidial medication to vaccinated flocks can also slow or stop the development of immunity. It is not recommended to replace good flock supervision and routine necropsy of mortality with routine drug administration.

Our choices of drugs to treat in the drinking water are limited to amprolium and the sulfa drugs such as sulfaquinoxoline or sulfadimethoxine in the U.S. In addition to these, toltrazuril has been a very effective medication for treatment outside the U.S. It is important to identify the *Eimeria* species most affecting pullets/roosters, because amprolium is most effective against *E. tenella* and *E.necatrix* (hemorrhage producers) and sulfa drugs work best against *E. acervulina* and *E. maxima* (4).

Summary

Today's replacement breeders are far more feed-efficient and grow more rapidly than they did 25 years ago. Consequently, we must do a better job managing the development of immunity to coccidia if we are to minimize the impact on skeletal frame size and body weight uniformity. There are several options available to help birds develop lifelong immunity, ranging from anticoccidial drugs to vaccines.

Whichever method is used, birds must still be closely monitored for signs of excessive coccidia damage. If we don't do a good job managing our "cocci program," we may significantly affect both egg production in hens and fertility in roosters.

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OUR CHANGING PROFESSION

C. Stephen Roney DVM, MAM
Director Veterinary Services
Goldkist, Inc.

I was thinking how different my everyday tasks are as compared to what they were 5 or 6 years ago. Indeed, the business of raising chickens is rapidly changing, as is our role as veterinarians in that industry. Broiler breeds are changing faster than we can adapt. In our operation, we see subtle changes in the same breed from year to year. This makes it difficult to optimally incubate, vaccinate and incubate birds with constantly changing requirements. This has been difficult for some of us to explain to management, why the things that worked so well for so long, do not work as well anymore. We all see different hatchery requirements, vaccine reactions and nutritional episodes that were rare before the advent of the yield breeds.

Day to day activities have changed as well. My poultry medicine training prepared me for disease recognition and diagnostics and treatment. We spend much less time with these tasks than before. One reason is the relatively good bird health that we have experience for the last 2 to 3 years. With infectious bronchitis somewhat under control, we have had less airsacculitis to deal with and therefore less diagnostic time in the field. Another reason for this shift in tasks is the number of relatively new issues with which we have to deal. Animal welfare has become a major issue in the industry as the consumer groups such as PETA put pressure on our customers to force us into animal care that they believe is correct. From the information that I have gathered from our customers, it seems that PETA is misguided in their view of the needs of birds or they just want to harass us into stopping the production of food animals altogether. My guess is the latter. For instance, they submitted a demand to YUM! that we only catch chickens by mechanical catchers. If we were already using mechanical catchers, they would most likely demand that we catch by hand. Also, some of the requests regarding perches and toys in broiler houses and the amount of total sleep time per day show that they humanize the chicken and require what a person would need but have no idea of the real needs of the animal. Shouldn't we, as poultry veterinarians, know better what our animals need? In any event, animal welfare audits as well as fielding constant questions from the public takes a big chunk of our time.

Another issue that requires constant attention is the use of antibiotics in broilers. Consumer groups have used the same strategy of PETA by contacting our customers and demanding that they tell us not to use antibiotics in broilers. While we agree that the use of antibiotics should be minimal, we are not to the point where we can grow all our chickens antibiotic free. Some breeds will develop enteritis if grown several growouts on litter without feed additive antibiotics. Our recent customer requests require constant monitoring of all feeds to be sure that we are not using any growth promoting levels of antibiotics. Non-prescription antibiotics were once administered by field people on an "as needed" basis. Due to requirements from different customers and exports, we are now requiring that the use of any antibiotic as a therapeutic in the field be approved by veterinary services. Again, this takes a large amount of time from our routines.

Most everyone that has even minor contact with the poultry industry is familiar with Agristats. Agristats has been around for some time but still continues to demand a lot of time from the technical persons' work week. Whether you think that Agristats has been a positive for the industry or not, the fact remains that the upper management in many companies uses it as the most important record of performance. For technical people, this usually involves hours spent trying to get the numbers reported correctly and trying to explain things that may not match your observations in the field. This frustration has been the demise of more than one professional. Things like condemnations may not compare well from region to region or even from complex to complex. I personally would like to see the report broken down into more categories of breed and feed so that the comparisons would be applicable to a specific operation and those people who operate similar to that operation. I would also like to see more standardization of reporting that would account for differences in things like medication costs that may differ due to inventory reporting. This would remove some of the frustration for veterinarians.

As we at MAM's ponder the future of the MAM program, we need to incorporate these ever changing responsibilities as part of the curricula. This industry is changing and changing fast. The part of the veterinarian is changing also and we need to keep up with these changes and be proactive with the companies where we are employed. I think veterinarians have the best education possible for becoming leaders in our industry. However, there are surprisingly few of us that attain those levels of complex manager or VP of production. We should take pride in our experiences while continuing to stay abreast of the dynamics of the industry. Veterinarians have some of the broadest, problem solving training of any profession and the MAM program is an excellent complement to this training. Let us continue to market ourselves for what we are capable of doing and continue to hold places of prominence in this industry that has been so good to us.

POSITION NOTICE

The Department of Avian Medicine, College of Veterinary Medicine, The University of Georgia is seeking a veterinarian to fill a position in clinical poultry medicine. Requirements include the DVM or equivalent and Masters or PhD degree or board certification (or eligibility for examination) by the American College of Poultry Veterinarians. Responsibilities include clinical services to the poultry industry and major participation in instruction in the Master of Avian Medicine degree program. This position will be a non-tenure clinical professorship. Salary and rank are dependent on qualifications and training.

Interested persons should submit their curriculum vitae and names of 3 persons who may be contacted as references. Deadline for receipt of application is October 30, 2003. The search may be reopened/extended.

Direct inquiries and submit applications to: Dr. Pedro Villegas, Department of Avian Medicine, College of Veterinary Medicine, The University of Georgia, Athens, GA 30602-4875. Phone: (706) 542-1904. Fax: (706) 542-5630. Email: pedrov@uga.edu.

The University of Georgia is an equal opportunity/affirmative action institution.

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 Whole Bird Condemnation (Company)

	Average Co.	Top 25%
% Septox	0.190	0.293
% Airsac	0.053	0.052
% I.P.	0.031	0.023
% Leukosis	0.004	0.002
% Bruise	0.006	0.005
% Other	0.008	0.001
% Total	0.292	0.377
% 1/2 parts condemnations	0.373	0.496

Data for week ending 09/27/03

COBB-VANTRESS

Primary Breeders Veterinary Association

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Aviagen

The Poultry Informed Professional Newsletter is published with support from The Primary Breeder Veterinarians Association.

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 Down Slightly

According to the latest National Agricultural Statistics Service (NASS) reports, commercial hatcheries in the 19-State weekly program set 203 million eggs in incubators during the week ending August 30, 2003. This was down slightly 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 Up 1 Percent

Broiler growers in the 19-State weekly program placed 168 million chicks for meat production during the week ending August 30, 2003. Placements were up 1 percent from the comparable week a year earlier. Cumulative placements from December 29, 2002 through August 30, 2003 were 5.89 billion, down 1 percent from the same period a year earlier.

July Egg Production Down Slightly

U.S. egg production totaled 7.34 billion during July 2003, down slightly from last year. Production included 6.26 billion table eggs and 1.09 billion hatching eggs, of which 1.02 billion were broiler-type and 61.0 million were egg-type. The total number of layers during July 2003 averaged 332 million, down 1 percent from a year earlier. July egg production per 100 layers was 2,214 eggs, up 1 percent from July 2002.

All layers in the U.S. on August 1, 2003, totaled 332 million, down 1 percent from a year ago. The 332 million layers consisted of 274 million layers producing table or commercial type eggs, 55.6 million layers producing broiler-type hatching eggs, and 2.59 million layers producing egg-type hatching eggs. Rate of lay per day on August 1, 2003, averaged 71.2 eggs per 100 layers, up 1 percent from a year ago.

Laying flocks in the 30 major egg producing States produced 6.86 billion eggs during July 2003, down slightly from a year ago. The average number of layers during July, at 309 million, was down 1 percent from a year ago.

Egg-Type Chicks Hatched Up Slightly

Egg-type chicks hatched during July totaled 35.6 million, up slightly from July 2002. Eggs in incubators totaled 30.7 million on August 1, 2003, down 6 percent from a year ago.

Domestic placements of egg-type pullet chicks for future hatchery supply flocks by leading breeders totaled 226,000 during July 2003, down 20 percent from July 2002.

Broiler Hatch Down 1 Percent

The July 2003 hatch of broiler-type chicks, at 777 million, was down 1 percent from July of the previous year. There were 641 million eggs in incubators on August 1, 2003, down 1 percent from a year earlier.

Leading breeders placed 7.1 million broiler-type pullet chicks for future domestic hatchery supply flocks during July 2003, up 7 percent from July 2002.

Turkey Eggs in Incubators on August 1 Down Slightly

Turkey eggs in incubators on August 1, 2003, in the United States totaled 32.2 million, down slightly from August 1 a year ago. Eggs in incubators were 1 percent above the July 2003 total of 32.0 million. Regional changes from the previous year were: East North Central, unchanged; West North Central, down 2 percent; North and South Atlantic, up 5 percent; South Central, down 26 percent; and West, up 19 percent.

Poults Placed During July Down 2 Percent From Last Year

The 25.2 million poults placed during July 2003 in the United States were down 2 percent from the number placed during the same month a year ago. Placements were down 1 percent from the June 2003 total of 25.4 million. Regional changes from the previous year were: East North Central, down 7 percent; West North Central, unchanged; North and South Atlantic, up 4 percent;South Central, down 17 percent; and West, down 6 percent.

Broiler Production Down 0.4 Percent

Broiler production during the first half of 2003 was about 16 billion pounds, down less than 1 percent from the same period in 2002. Production during the second quarter of 2003 was down only slightly from the previous year. The decrease in broiler meat production has been the result of a lower number of birds going to slaughter. Over the first half of 2003, the number of broilers slaughtered was 4.2 billion, down 1.9 percent from the same period a year earlier. The decline in the number of birds being slaughtered has been partially countered by increasing weights. Average broiler weight at slaughter in the first half of 2003 has been 5.19 pounds, up 1.6 percent from the previous year. Broiler meat production during the second half of 2003 is expected to be slightly higher than during the same period in 2002, as broiler companies respond to the gradual strengthening in most broiler prices. The weekly numbers of chicks being placed for growout are beginning to approach year-earlier levels, and average weights continue to be 1-to-2 percent higher than the previous year.

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USDA Reports continued from page 8

Broiler Exports Down, Forecast Uncertain

Over the first 6 months of 2003, broiler exports have been 2.37 billion pounds, down less than 1 percent from the same period in 2002. The chief reasons for the lower shipments were lower exports to Russia, Hong Kong/China, and Mexico.

Exports to Russia were 675 million pounds in the first half of 2003, 13 percent lower than the previous year. Much of the decline has come from the enactment of a quota on imports of poultry products and earlier uncertainties about the structure of the quota and how it would be allocated. Falling exports to Hong Kong/China have reflected the SARS outbreak and its impacts on the Hong Kong economy. Poultry shipments to Mexico have been depressed (down 15 percent) as the Mexican economy has slowed and discussions on placing a tariff-rate quota on imports of U.S. frozen leg quarters have created uncertainties.

The U.S. broiler export outlook over the second half of 2003 continues to have a number of problems. Although the Russian quota for U.S. poultry imports seem set through the remainder of 2003, there are still a number of questions about its composition for 2004. In Hong Kong, the chief questions are whether there will be any long-term economic effects from the SARS outbreak and whether imports will return to levels seen in the past. With the conclusion of bilateral discussion with Mexico about imports of U.S. leg quarters, exports are expected to strengthen to levels closer to those seen in past years. While the gradual strengthening of prices for export-oriented products as leg quarters and wings seems to indicate a growing export demand, the current situation differs from previous export-market driven price increases due to falling U.S. broiler production in the first half of 2003.

Turkey Production Flat in First-Half 2003

Turkey production over the first 6 months of 2003 was 2.8 billion pounds, only fractionally lower than during the same period in 2002. The decrease in production is due to the same set of factors as the decrease in the broiler industry. The total number of turkeys going to slaughter in the first half of 2003 was down about 1 percent, but was mostly offset by a 0.7-percent increase in the average liveweight of turkeys (27.4 pounds) during this period. The forecast for the second half of 2003 is for a slight decline in production compared with the previous year. The number of poults placed for growout during the first 7 months of 2003 has totaled 174.8 million, down 1.6 percent from the same period in 2002. In addition, lower prices for whole birds and many turkey parts, along with large stocks in cold storage, has dampened any enthusiasm for increases in production.

Turkey Exports Fall by 9 Percent

Over the first 6 months of 2003, U.S. turkey exports totaled 216 million pounds, down 9 percent compared with the previous year. The quota on poultry imports into Russia has pushed exports to that market down by 60 percent compared with the previous year. Export shipments have also fallen heavily to Mexico and Hong Kong. The decline in shipments to these major markets has been partially offset by higher demand in Taiwan and Canada. Also exports to South Africa have strengthened significantly, with imports during the first half of 2003, at 6.8 million pounds, already higher than shipments for all of 2001 or 2002.

SEEKING NOMINATIONS

General Conference Committee of the National Poultry Improvement Plan. The General Conference Committee is the official Advisory Committee to the Secretary of Agriculture that serves as a forum for the study of problems relating to poultry health and as the need arises, to make specific recommendations to the Secretary of Agriculture concerning ways in which the Department may assist the industry in solving these problems.

The General Conference Committee consists of one member-at-large who is a participant of the National Poultry Improvement Plan and one member elected from each of the six geographical regions outlined in 9 CFR 147.43. There must be at least two nominees for each position up for election. The regions that are up for election in 2004 are 1) South Atlantic: Delaware, District of Columbia, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, and Puerto Rico; 2) South Central Region: Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas; 3) West North Central: Minnesota, Iowa, Missouri, North Dakotqa, South Dakota, Nebraska, and Kansas. Voting will be done by secret ballot, and the results must be recorded. At least one nominee from each region up for election must be from an underrepresented group(minorities, woemen, or persons with disabilities). The process of soliciting nominations for regional committee members will include, but not limited to: Adverstisements in at least two industry journals, such as the newsletter of the American Association of Avian Pathologists, the Nationa Chicken Council, the United Egg Producers, and the National Turkey Federation; a Federal Register Announcement,; and special iinquiries for nominations from universities and faculty in poultry science and veterinary science.

The three regional members shall be elected at each Plan Conference. All members shall serve for a period of 4 years, subject to continutation of the Committee by the Secretary of Agriculture, and may not succeed themselves. Nominations should be sent to the executive secretary of the General Conference Committee by no later than May 1, 2004:

Andrew R. Rhorer
Senior Coordinator
National Poultry Improvement Plan
USDA, APHIS, Veterinary Services
1498 Klondike Rd., Suite 200
Conyers, Georgia 30094
770 922 3496
fax 770 922 3498

Meetings, Seminars and Conventions

2003 October

Oct 7-10: ***XVIII Latin American Poultry Congress,*** Hotel Los Tajibos, Santa Cruz, Bolivia. Contact: Casilla Postal 1133, Santa Cruz, Bolivia. Phone: 591-333-4807; Fax: 591-333-1528; Email: infomes@xviii-alabolivia.org

Oct 9-10: ***U.S. Poultry Protein & Fat,*** The Peabody Hotel, Memphis, TN. Contact: U.S. Poultry & Egg Association, 1530 Cooledge Road, Tucker, GA 30084-7303. Phone 770-493-9401; http://www.poultryegg.org

Oct. 11-15: ***Anuga Food Show,*** KslnMesse, Cologne, Germany. Contact: KslnMesse, GmbH, Messeplatz 1, D-50679 Klsn, Germany. Phone: +49 821 33 05; Fax: +49 821 34 10. Email: m.schlveter@koeln-messe.de

Oct 14-16: ***Poultry 2003, 25th International Conference, Business Meeting & Exhibition,*** HIS Fr Joliot-Curie, Resort St. Contantin & Helen, Verna, Bulgaria. Contact: Bulgarian Poultry union. 1303 Sofia, Hr. Botiv Blvd, Bulgaria. Tel/Fax: +359 2 931 0958 or email: galus@mb.bia-bg.com

Oct. 17: ***Campylobacter Workshop,*** Holiday Inn, Johannesburg Airport, South Africa. Contact: Positive Action Conferences, P.O. Box 4, Driffield, East Yorkshire, Y025 9DJ, England. Phone: +44 1377 256316; Fax: +44 1377 253640; Email: conf@positiveaction.co.uk; Website: http://www.positiveaction.co.uk

Oct. 22-24: ***National Meeting on Poultry Health and Processing,*** Clarion Resort Fountianebleau Hotel, Ocean City, Maryland.Contact: Karen Adams, Delmarva Poulty Industry, Inc., Phone (302)856-9037, Email: adams@dpichicken.com

Oct. 23-24: ***U.S. Poultry Women in Management,*** Park Vista Hotel, Gatlinburg, TN. Contact: U.S. Poultry & Egg Association, 1530 Cooledge Road, Tucker, GA 30084-7303. Phone 770-493-9401; http://www.poultryegg.org

Oct. 27: ***Mycoplasma 2003,*** NH Utrecht Hotel, Utrecht, The Netherlands. Contact: Positive Action Conferences, P.O. Box 4, Driffield, East Yorkshire, Y025 9DJ, England. Phone: +44 1377 256316; Fax: +44 1377 253640. Email: conf@positiveaction.co.uk; Website: www.positiveaction.co.uk

Oct. 26-31: ***IX World Conference on Animal Production,*** Porto Alegre, Rio Grande do Sul, Brazil. Contact: Prof. J. Lopez or Prof. S. Nicolaiewsky, Universidade Federal do Rio Grande do Sul, Av Bento Goncalves 7712, Caixa Postal 776, 900001-970, Porto Alegre RS Brazil. Phone: +55 51 3316 3609; Fax: +55 51 3316 3888 or email: wcap.2003@ufrgs.br

Oct. 28-31: ***VIV Europe 2003,*** Jaarbeurs-venure, Utrecht, the Netherlands. Contact: Jaarbeurs Exhibitions & Media, P.O. Box 8800, 3503 RM utrecht, the Netherlands. Phone: +31 30 295 27 72; Fax: +31 30 295 28 09; Email: viv.europe@jem.nl.

Oct. 31: ***Campylobacter Workshop,*** NH Utrecht Hotel, Utrecht, The Netherlands. Contact: Positive Action Conferences, P.O. Box 4, Driffield, East Yorkshire, Y025 9DJ, England. Phone: +44 1377 256316; Fax: +44 1377 253640; Email: conf@positiveaction.co.uk; Website: http://www.positiveaction.co.uk

2003 November

Nov. 12: ***U.S. Poultry Grain Forecast and Economic Outlook,*** Atlanta Airport Hilton Hotel, Atlanta, GA. Contact: U.S. Poultry & Egg Association, 1530 Cooledge Road, Tucker, GA 30084-7303. Phone 770-493-9401; http://www.poultryegg.org

Nov. 17-19: ***2003 China Animal Husbandry & Feed Industries Trade Fair,*** Nanjing, Jiangsu Province, PRC. Contact: Tong wei, China Animal Agriculture Association. Phone +86 10 659 198 63; Fax: +86 10 659 179 40 or email: caaa@caaa.com.cn Web site: www.caaa.com.cn

2004 January

Jan 28-30: ***2004 International Poultry Exposition,*** Georgia World Congress Center, Atlanta, GA Contact: US Poultry & Egg Association, 1530 Cooledge Road, Tucker, GA 30084. Phone: 770-493-9401; Fax: 770-493-9527.

2004 February

Feb. 9-11: ***2004 Australian Poultry Science Symposium,*** University of Sydney, Australia. Contact: Poultry Research Foundation, University of Sidney, Camden NSW 2570, Australia. Phone: +61 2 46 550 656; Fax: +61 2 46 550 693 or email: noelenew@camden.usyd.edu.au. Website: www.vetsci.usyd.edu.au/foundations/prf.shtml

Feb. 23-25: ***2004 Poultry Focus Asia 2004,*** Queen Sirikit National Convention Centre, Bangkok, Thailand. Contact: Positive Action Conferences, P.O. Box 4, Driffield, East Yorkshire, Y025 9DJ, England. Phone: +44 1377 256316; Fax: +44 1377 253640; Email: conf@positiveaction.co.uk; Website: http://www.positiveaction.co.uk

2004 March

Mar. 7-9: ***53rd Western Poultry Disease Conference,*** Sacramento, California. Contact: Dr. R.P. Chin. Email: rpchin@ucdavis.edu

Mar. 10-11: ***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, NE 68583-0908. Phone: 402-472-2051

Mar. 11-13: ***SIPSA 2003 (3rd International Exhibition for Animal Health and Production),*** Algiers, Algeria. Contact: Expofair, CD233, Route de Bouchaoui, Ouled Fayet, Algeria. Phone: +213 21 386 231/2; Fax: +213 21 38 70 58 or email: abensemmane@yahoo.fr

2004 April

Apr. 21-23: ***VIV China,*** Beijing, China, China International Exhibition Center. Contact; CNAVS Trade Fair Office, c/o Beijing Tech convention & Exhibition Center, Rm 3011, Yuanliwuye Building, No. 23, Hui Xin East Road, Beijing 100029-P.R. China. Phone: +86 10 649 88 358; Fax: +86 10 649 50 374 or Email: fair@public.east.cn.net

Apr. 23-24: ***5th Asia Pacific Poultry Health Conference, "Harnessing Science for Poultry Production",*** Gold Coast, Australia. Contact: Dr. Pat Blackall, (APPHC5), Animal Research Institute, Locked Mail Bag No. 4, Moorooka, QLD 4105, Australia. Fax: + 61 7 3362 9429 or email: pat.blackall@dpi.qld.gov.au

Apr. 26-29: ***Middle East Poultry Show 2004,*** Dubai World Trade Centre Exhibition Complex, United Arab Emirates. Contact: Mediac Communications & Exhibitions, PO Box 5196, Dubai, United Arab Emirates. Phone: +9714 269 2004; Fax: +9714 269 1296 or email: mediac@emirates.net.ae. Website: www.mediaccom.com

2004 May

May 11-13: ***Victam Europe 2004,*** Jaarbeurs Trade Halls, The Netherlands. Contact: Victam International, P.O. Box 197, 3860 AD Nijkerk, The Netherlands. Phone: +31 33 246 4404; Fax: +31 33 246 4706; Email: expo@victam.com

Meetings, Seminars and Conventions

2004 June

June 1-4: ***Poultry Industry 2004 International Forum,*** Crocus Expo Exhibition Center, Moscow, Russia. Contact: Karapetyan Nune, Asti Group Exhibition Company. Phone: +7 095 797 6914; Fax: +7 095 797 6915; Email: nune@meatindustry.ru; Website: www.chickenking.ru

June 8-12: ***XXII World's Poultry Congress,*** WPSA Turkish Branch, Istanbul, Turkey. Contact: congress Organiser: ITU Joint Venture, Cumhuriyet Cad. 18/5, 80230 Elmadag, Istanbul, Turkey. Phone: +90 212 231 3021; Fax: +90 212 232 1522; Email: wpsa2004@wpsa2004.org

June 10-13: ***VIV Poultry Istanbul,*** Istanbul,Turkey. World Trade Center Yesilkoy. Contact: HKF / Jaarbeurs Exhibitions & Media. Barbaros Bulvari 135/2, Dikilitas ? Besiktas 80700 Istanbul, Turkey. Phone: +90 212 216 4010; Fax: +90 212 216 3360; Email: hkf@hkf-fairs.com

June 16-18: ***5th International Poultry & Pig Show (IPPS),*** Port Messe (Nagoya International Exhibition Hall), Nagoya, Japan. Contact: Kokusai Yokei, International Poultry/Pig Show Japan 2004, 2-6-16 Shinkawa, Chuo-ku, Tokyo 104-0033, Japan. Phone: +81 3 3297 5515; Fax: +81 3 3297 5519

June 16-19: ***5th International Symposium on Turkey Diseases,*** Berlin, Germany. Contact: Prof. Dr. H.M. Hafez, Institute of Poultry Diseases, Free University Berlin, Koserstrasse 21, 14195 Berlin, Germany. Phone: 49-30-8385-3862; Fax: 49-30-8385-5824; Email: hafez@zedat.fu-berlin.de

2004 July

July 11-14: ***7th International Mareks Disease Symposium,*** Oxford, UK. Contact: Dr. M. Carr, Institute of Animal Health, Compton Laboratory, Newbury RG20 7NN, UK. Phone: +44 1635 577227; Email: margaret.carr@bbsrc.ac.uk

2004 August

August 25-27: ***XVII Central American Poultry Congress,*** San Pedro Sula, Honduras. See www.anavih.org for details. Contact: Email: anavih@honduras.quik.com

We extend a warm welcome to Dr. Guillermo Zavala

Dr. Guillermo Zavala has been appointed Assistant Professor in the Department of Avian Medicine. He received his DVM at the National Autonomous University of Mexico, his MAM, MS and PhD from the University of Georgia. Dr. Zavala is a Diplomate, American College of Poultry Veterinarians.

Dr. Zavala's work experience includes Director of Veterinary Services and Marketing (Mexico and Latin America) for a leading vaccine manufacturer. Director of Poultry Health and Veterinary Services for a primary breeder. Director of Worldwide Technical Services for a major vaccine manufacturer. Head of the Department of Pathology and Molecular Epidemiology for the Georgia Poultry Laboratory Network (GPL).

In his newly appointed position Dr. Zavala will divide his time between teaching students in the MAM and Medical Microbiology programs, providing clinical service to the Georgia poultry industry, and research in areas of avian reoviruses, infectious disease agent interactions and broiler breeder pathology and performance.

Dr. Zavala has authored and co-authored numerous publications and articles for various trade and industry journals. He is a member of the U.S. Poultry Science Association; American Veterinary Medical Association; American Association of Avian Pathologists; and the World Poultry Veterinary Association.

Broiler Performance Data (Region) Live Production Cost					
	SW	Midwest	Southeast	Mid-Atlantic	S-Central
Feed cost/ton w/o color ($)	145.71	136.25	149.68	152.92	147.53
Feed cost/lb meat (¢)	13.35	12.41	13.71	15.07	13.64
Days to 4.6 lbs	45	44	44	44	43
Chick cost/lb (¢)	4.19	4.05	4.16	3.59	4.05
Vac-Med cost/lb (¢)	0.06	0.02	0.05	0.05	0.03
WB & 1/2 parts condemn. cost/lb	0.18	0.16	0.11	0.18	0.17
% mortality	4.57	3.77	3.46	4.66	3.57
Sq. Ft. @ placement	0.81	0.79	0.82	0.84	0.83
Lbs./Sq. Ft.	6.25	6.57	6.39	7.13	6.37
Down time (days)	12	10	12	12	12

Data for week ending 08/30/03

Broiler Performance Data (Company)
Live Production Cost

	Average Co.	Top 25%
Feed cost/ton w/o color ($)	148.15	148.40
Feed cost/lb meat (¢)	13.69	13.34
Days to 4.6 lbs	44	43
Chick cost/lb (¢)	4.17	3.83
Vac-Med cost/lb (¢)	0.04	0.01
WB & 1/2 parts condemn. cost/lb	0.16	0.12
% mortality	3.97	3.17
Sq. Ft. @ placement	0.81	0.79
Lbs./Sq. Ft.	6.41	5.64
Down time (days)	12	12

Data for week ending 08/30/03

Broiler Whole Bird Condemnation (Region)

	SW	Mid-West	S. East	Mid-Atlantic	S. Central
% Septox	0.222	0.267	0.131	0.236	0.168
% Airsac	0.062	0.044	0.063	0.093	0.044
% I.P.	0.025	0.021	0.021	0.023	0.059
% Leukosis	0.001	0.001	0.000	0.012	0.001
% Bruise	0.007	0.003	0.007	0.006	0.009
% Other	0.018	0.003	0.012	0.010	0.009
% Total	0.335	0.340	0.234	0.381	0.290
% 1/2 parts condemnations	0.407	0.454	0.270	0.366	0.469

Data for week ending 08/30/03

Broiler Whole Bird Condemnation (Company)

	Average Co.	Top 25%
% Septox	0.202	0.142
% Airsac	0.060	0.045
% I.P.	0.031	0.028
% Leukosis	0.004	0.005
% Bruise	0.007	0.012
% Other	0.009	0.010
% Total	0.313	0.241
% 1/2 parts condemnations	0.400	0.405

Data for week ending 08/30/03