In normal times, the strong egg prices likely to occur in the second half of 2008 should equate to strong profits. But these are not normal times, due to the double whammy of skyrocketing feed and energy costs.

“I’m hoping that I don’t give back in the second half the profits I’ve made in the first half,” says Ron Truex, president of Creighton Bros., Atwood, Ind. “We have to be prepared for marginal profits or losses in the second half of this year.” In 2007, in contrast, the bulk of profits for the year were made in the second half of the year.

In late April, “our egg prices went down 50 cents per dozen, but our costs went up 20 to 25 cents,” he says. Truex adds that with such grain price volatility, for almost the first time in decades of being in the business, he “doesn’t have a single clue” how to go about forecasting the profit picture for the second half of 2008.

Truex thinks that “if prices fall below $1.30, I’m not sure we’ll be profitable.” He notes that egg prices held one week after Easter and then crashed all of a sudden.

“I don’t know how things changed that fast,” he states.

Corn Could Be $5 or $7

What clouds the profit picture, Truex says, is uncertainty over where grain, particularly corn, prices are headed. He recently attended a meeting in which an agricultural economist made equally convincing arguments on why corn prices will be either $5/bu. or $7/bu. later this year. One factor making him nervous on corn is that in his part of Indiana, no planting had been done by April 21 due to wet conditions. “Corn is not getting in the ground,” while last year, which was a dry spring, planting had been completed by May 6.

“Everything we used to use to plan is gone,” he adds. Adding to his profit concern is the fact that trucking costs are increasing so dramatically. One reason why egg profitability was not negative like pork last year, Truex says, is that egg producers lost so much money in 2005 and 2006, thus there was a cutback in production last year.

As has been the story for months now, Truex is not yet seeing much of an in-
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Executives Optimistic on Prices

crease in new production, due not only to high grain prices, but also concern over the future of animal welfare regulations, and air quality rules.

Back into Overproduction

Marcus Rust, an owner of Rose Acre Farms, Seymour, Ind., says that in response to high prices last year, “we are right back in the overproduction area,” but even so, he looks for the industry to be profitable in the second half of 2008. “It’s just not going to be as good as we thought it would be.”

As for Rose Acre Farms, “we are not expanding in the Midwest,” Rust says, but the company is in North Carolina, “where markets are a lot higher. Production follows where the money is.”

It’s not just grain prices that have risen dramatically, he says. “So have vitamins and phosphorous.” In predicting profitability in the second half of this year, he agrees with Truex that he “has no clue, it’s hard to figure,” due, in part not only to the cost side, but because the industry has “new production coming on” that will add to the supply side. In the Midwest, for example, houses that haven’t had birds in them for awhile now “have birds in them,” he says, “the most in several years.”

On demand, Rust expects a total decline in demand due to high egg prices, in part because of a consumer shift away from shell eggs to egg substitute products in the egg case, and a decline in demand for eggs broken due to a slowdown in demand for eggs used in the food business as companies seek less expensive alternatives.

Largely Like 2007

Larry Seger, president of Wabash Valley Produce, Dubois, Ind., looks for egg prices the second half of 2008 to be “a lot like what happened in 2007.” Although he “would hate to pin a number on it,” he thinks Urner Barry prices in the $1.30 to $1.40 range are probable. He looks for the second half of the year to be profitable, “although it will be down to what happens this summer to corn and soybeans.”

Noting that the industry “is still in a cage reduction space phase” due to the United Egg Producers (UEP) guidelines of 67 square inches, he thinks expansion of any magnitude is unlikely until the end of the year. Both $6 corn and $350 soybean meal is making producers hesitant to expand, he says. In addition, producers are cautious about efforts to ban caged production in California, Colorado and elsewhere.

On his own operation, Seger is replacing cages based on what he gave up to increase cage space. He adds, however, that some expansion is coming on line, but it will not likely affect prices until next year. The combination of high costs and more production next year makes Seger less confident that 2009 will be a profitable year. “I’m not nearly as bullish on 2009 as I am on 2008. Based on what I see we could be losing money in 2009.”

2009 a Wild Card on Profits

One big question, Seger says, is demand. “Retail egg prices hit $2 per dozen and we did not lose much demand due to price. This was a surprise to me.” He thinks it possible, however, that there could be a slackening in demand on the breaking side of the business.

Last year, egg prices were aided by large export orders to Europe and elsewhere. Seger is the chairman of the board of U.S. Egg Marketers, and thus far, “nothing is in the works” for any export deals as occurred in 2007. He says, however, that deals are possible given the weak U.S. market and shows that prices for 2008 are the highest in recent history. Source: USDA.
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In addition, Krouse says, it used to be that eggs from breaking operations were sold on the open market during times of excess supply, but now more, due to the requirement of UEP certified eggs from retailers. All of his customers, for example, require UEP certified eggs.

Krouse adds, “There is nowhere for the birds to go” with complexes full. Krouse does not see much in the way of 2 million to 5 million bird complexes being built right now the way they were several years ago, and even those that are on the drawing boards will take years to fruition given how long it takes to obtain permits and have units constructed. Krouse adds that much of the industry is operating from 25-year-old facilities that are losing 1 to 2 percent in efficiency because of their age.

Krouse thinks that Urner Barry Midwest egg prices the second half of the year could range from $1.35 to $1.70. So far, he has not seen any slackening of demand, and he believes that egg demand is largely inelastic—unrelated to price. Helping egg demand in the face of high prices, he says, “is that all price prices are high. I don’t see demand for shell eggs going down.”

Even layer complexes on the drawing boards will take several years to fruition given how long it takes to obtain permits and have units constructed—Bob Krouse, Midwest Poultry Services

 egg producers a strong incentive to expand production,” USDA adds that prices “are expected to gradually move downwards in second-half 2008 as production rises.”

Similar to Last Year

“When you look at the number of birds and the number of cage spaces we’ll lose to animal welfare (UEP’s program), it looks like prices for this year will look pretty similar to last year,” says Bob Krouse, president of Midwest Poultry Services, Meltone, Ind. “The only way (the industry) could expand would be if people abandoned the UEP program and I don’t see that happening.”

In the United States.

Seger’s view is largely in line with USDA’s projection in its March Economic Research Service’s Livestock, Dairy and Poultry report. Table egg production is expected to rise only slightly in the second half of 2008. USDA says that even with the large increases in grain prices in the last six months, “This still gives dollar that makes eggs less expensive in other countries than in the United States.

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Study: Eggs Cut Breast Cancer Risk

Choline, an essential nutrient found in eggs, can reduce the risk of breast cancer by about 24 percent, according to research at the University of North Carolina. One egg has 125.5 milligrams of choline, about 25 percent of the recommended daily intake of the nutrient. Other major food sources for choline are liver, wheat germ, and cauliflower.

“Choline is needed for the normal functioning of cells, no matter what your age or gender,” says Steven H. Zeisel, MD, PhD, who led the study. “Increasing evidence shows that it may be particularly important for women, particularly those of child-bearing age,” Zeisel says.

The study, to be reported in the June issue of the *The Federation of American Societies for Experimental Biology Journal*, observed cancer risk of 3,000 women. “While choline is an essential nutrient to the human diet, most people haven’t even heard of it,” says Gerald Weissman, MD, editor of the journal, and research professor of medicine and director of the Biotechnology Study Center at the New York University School of Medicine. Two earlier studies also show that women who consume eggs have lower breast cancer risk.

Choline plays a role in the normal functioning of cells, including brain and nerve function, liver metabolisms, and the transportation of nutrients throughout the body. It also improves memory and cuts heart disease risk.

Egg Prices Up 58 Percent in Quarter

Wholesale New York egg prices averaged $1.59 per dozen in the first quarter of 2008, slightly over 50 percent higher than the same period in 2007, USDA reports.

The department forecasts prices to be $1.27 to $1.33 in the second quarter, a substantial decline from the first quarter, but nonetheless 41 percent higher than the same period in 2007.

No Increased Death Risk for Six Eggs a Week

Men without diabetes can eat up to six eggs a week without any extra risk of death, according to a study by the Harvard Medical School and the Brigham and Women’s Hospital. “Whereas egg consumption of up to six eggs a week was not associated with risk of all-cause mortality, consumption of (seven or more) eggs a week was associated with a 23 percent greater risk,” Drs. Luc Djousse and J. Michael Gaziano wrote in the *American Journal of Clinical Nutrition*.

But men with diabetes who ate any eggs were at a higher risk of death during the 20-year period studied.

Layer Numbers Show Decline

Table egg type layer numbers were 2 percent below year-ago levels on April 1 compared to year-earlier levels, according to USDA’s April 22 Chicken and Egg Report.

Looking at the top-10 egg producing states in flocks 30,000 and above during March, only two, Iowa and Florida, showed an increase. Iowa was up 2 percent; Ohio, down 6 percent; Indiana, down 3 percent; Pennsylvania, down 3 percent; California, down 1 percent; Texas, down 3 percent; Florida, up 1 percent; Nebraska, down 13 percent; Minnesota, down 4 percent; and Georgia, down 6 percent.

Egg Business in Bottom Five?

IBISWorld Inc., a publisher of business intelligence, predicts that the egg industry will be one of the “bottom five” in financial performance in 2008, along with military and armored vehicle and tank manufacturing; emergency and relief services; truck, trailer and motor home manufacturing; and metal ore mining in the wake of oversupply.

Whereas the industry grew by 21.3 percent last year, the company forecasts negative growth this year of 22.7 percent in what IBIS calls “a major correction.” IBISWorld says that a decline in revenue for chicken egg producers is anticipated.

Corn farming, meanwhile, is predicted by IBISWorld to be one of the top five industries in 2008, along with voice over internet protocol providers, foam product manufacturing; Web search portal and biotechnology firms.
New is the theme at American Egg Board (AEB). Joanne Ivy, president and CEO and several staff members joined the organization in 2007, a new chairman and two new executive committee members are in leadership roles, a new method of communicating joins the media mix to reach a new targeted audience, and nutrition messages take a new twist.

Web Ads Join Media Mix
For the first time, web media is incorporated into AEB’s advertising plan. A re-launch of the successful The incredible, edible egg campaign now appears on Web sites to reach the target audience of moms with children at home, more specifically mothers between the ages of 25 and 54. Key sites for the on-line advertising include Yahoo.com, Foodtv.com, WeightWatchers.com and Rachaelrayshow.com. Messages are tailored to each audience. For example, for Weightwatchers.com, the message promotes eggs as an excellent food option as part of a weight-loss plan.

A recipe slot machine, where a mouse-click displays protein and calorie information for various egg dishes in lieu of spinning cherries, encourages audience interaction on several sites.

New on-line efforts join the established elements of morning, cable and syndicated television; local radio; egg cartoons; women’s service, parenting, health, shelter, and lifestyle magazines; and billboards and truck signage that can be customized by producers for local use.

The nutrition-based message of eggs’ unique point-of-difference — high-quality protein from a natural, non-processed source — is carried throughout the campaign. Dubbed a “surround sound approach” by Kevin Burkham, AEB’s new vice president of marketing, efforts are designed to put the positive egg message in front of the target audience on a nearly continuous basis.

More Internet Use
Continuing the utilization of web-based media, two new AEB sites are now active. Maintaining the focus on moms with kids, www.IncredibleEgg.org offers demonstration videos, recipes, health and nutrition information, interactive games for families, and a blog by Omelet King Howard Helmer. The America’s Worst Cook campaign is featured on this site. Helmer has been partnered with Remy, a YouTube star, to create multiple videos and contribute to the promotion of the second annual America’s Worst Cook search. The contest’s Web site, www.AmericasWorstCook.com will carry new recipes, cooking tips and entry information.

By this fall, an overhaul of www.aeb.org will give the site a fresh look and make navigation easier. The new site will focus exclusively on egg industry audiences and business-to-business areas such as retail, foodservice, and food manufacturers.

Focus on Breakfast
Highly visible, national chain restaurants are targeted to expand their menus by adding choices that include eggs and...
A recommendation from an Industry Exploratory Committee, chaired by Jacques Klempf, Dixie Egg Co., to request USDA to conduct a referendum on an assessment increase from 10 to 15 cents per 30-doz. case was unanimously approved during the March board meeting. The committee’s recommendation was based on interviews with 65 producers.

“A nickel seemed to be what was wanted,” says Klempf.

A proposed rule will be developed. The required notice and comment period will be followed by a referendum among producers. If the referendum passes, the final rule will be issued and an effective date established. Current legislation allows the assessment to go to 20 cents without further legislative action.

Eggs for quick-service restaurants (QSR), the message addresses the growing breakfast market. A significant step, being watched by all leading QSRs is the addition of three varieties of egg sandwiches, created in conjunction with AEB, which are now on the breakfast menus of 1,100 Panera restaurants.

Print ads directed at mid-scale/family and casual restaurants and hotels focusing on breakfast as an all-day option are running in major foodservice trade publications.

Research to determine the success of the foodservice program throughout 2008 has been implemented to measure menu census, channel volume and assess advertising impact.

ENC Becomes Part of AEB

Funded by AEB for over 20 years with a cooperative management agreement with United Egg Producers, the Egg Nutrition Center (ENC) officially changed its status and became part of AEB at the beginning of 2008. Headed by ENC’s Executive Director Dr. Don McNamara, nutrition research and education efforts continue to focus on changing the negative perception of eggs and expanding positive perceptions within the scientific community.

McNamara explained how the focus has shifted from spending all ENC dollars to address the cholesterol issue to spending the majority of the dollars to target a set core of nutrition benefit messages, “prioritizing nutrition messages on those that have the most meaningful impact on public health.”

Using a theme of Incredible science to mesh with AEB’s The incredible edible egg, egg nutrition benefits like helping the elderly maintain muscle tissue; assisting with weight control and loss; and diet value during pregnancy and lactation, replace the cholesterol message.

Egg production DVD distributed

Egg production education moved into high school classrooms and public libraries via a new educational DVD, Eggs 101. A Video Project. The moderators of the DVD are two high school students whose assignment is to find out how the egg industry has changed over the years and where it is today. The DVD presents the full egg production and processing story from the hen in the laying house to the refrigerated trucks for delivery. A road trip is included to Purdue to interview poultry scientists and to an egg farm. Copies of this DVD, which includes a Teacher’s Guide PDF, were distributed to over 30,000 high schools and public libraries.

2008 Leadership

Jacque Klempf, Dixie Egg Company, took the lead as the new AEB chairman following a unanimous vote during the March board meeting. Most recently serving as vice chairman of the Executive Committee in 2007, Klempf also lead the Advertising Committee as chairman in 2006.

Klempf expressed his enthusiasm for the “new AEB”, including the new president and staff members who “hit the pavement running,” the new advertising campaigns and expanded media plan.

New to the Executive Committee: Vice Chairman Craig Willardson, Norco Ranch, Inc., and Committee Member Thomas E. Hertzfeld, I, Hertzfeld Poultry Farms, Inc. Continuing their leadership roles: Treasurer Paul Sauder, R.W. Sauder, Inc.; Secretary Brian Hayward, Creighton Brothers, LLC; Bruce Dooyema, Dooyema & Sons, Inc.; and Wayne Mooney, Pilgrim’s Pride Corp., past chairman, and Joanne Ivy, AEB president and CEO, as ex officio members.
Drs. William Dozier III and colleagues at the USDA-ARS facility at Mississippi State University reviewed the potential of glycerin as an energy source in layer diets. Glycerin is a byproduct of biodiesel production. It is estimated that during 2007, 41 million gallons of glycerin resulted from the production of 450 million gallons of biodiesel. Glycerin represents approximately 9 percent of the output of the transesterification process although the product must be refined to remove methanol and water.

Generally, glycerin is well absorbed and subsequent metabolism releases energy via glycolysis in the Kreb cycle and derived glucose can be used for gluconeogenesis and lipid formation. A definitive study was conducted to determine the metabolizable energy content of glycerin for laying hens. A basal diet was supplemented with 5 percent, 10 percent or 15 percent glycerin, replacing glucose. Experimental hens were 48 weeks of age. Commercial glycerin varies considerably in composition as evidenced by a wide range of color and moisture content. The AME values range from 1,326 to 3,688 kcal/lb. Glycerin from animal fat has an AME value of 2,741 kcal/lb compared to the ingredient derived from soy oil (1,839 kcal/lb) or from yellow grease at 3,175 kcal/lb. These differences were attributed to the residual fatty acids in the glycerin samples evaluated. The glycerin source used in the evaluation assayed at a fatty acid content of 0.29 percent, with 9.6 percent moisture and 7 percent glycerin. The ingredient provides only calories in contrast to animal fats or natural vegetable ingredients. Flowability is a major problem and it was considered that a 5 percent inclusion represented the maximum to avoid bridging. On the basis of current ingredient costs, liquid glycerin is worth only 5 cents per pound compared to a commercial price of 20 cents per pound. The ingredient must be heated for acceptable handling and mixing. Based on the extreme variability in AME, and the nutrient contribution to a conventional hen diet, glycerin is not an attractive ingredient and will have little contribution to feeding of flocks producing eggs.

**Dried Distillers Grains with Solubles**

Professor Sheila Scheideler of the University of Nebraska in association with Dr. Kevin Roberson of Michael Foods have conducted a series of experiments to determine the nutritional contribution and addition rates of DDGS to layer diets. Published research indicated that DDGS could be incorporated into diets fed to laying hens at 10 percent with no deleterious effect on commercial production parameters.

The response of hens was evaluated using Dakota Gold DDGS (Table 1) over two complete cycles. Dietary treatments included a basal control, and 5 percent increments ranging from 5 to 25 percent DDGS.

Table 1. DDGS PROFILE USED IN PHASE 1 (DAKOTA GOLD)

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Me, Kcal/kg</td>
<td>2853</td>
</tr>
<tr>
<td>Crude Protein %</td>
<td>26.6</td>
</tr>
<tr>
<td>Crude Fat %</td>
<td>9.7</td>
</tr>
<tr>
<td>Crude Fiber %</td>
<td>6.1</td>
</tr>
<tr>
<td>Dry Matter</td>
<td>90.7</td>
</tr>
<tr>
<td>Dig. Lysine %</td>
<td>0.89</td>
</tr>
<tr>
<td>Dig. Methionine %</td>
<td>0.52</td>
</tr>
<tr>
<td>Available Phosphorus %</td>
<td>0.55</td>
</tr>
<tr>
<td>Sodium %</td>
<td>0.19</td>
</tr>
</tbody>
</table>

(Table 1. (Scheideler et al, 2008))

The results of commercial parameters including egg production, feed intake, hen weight and internal quality variables (Haugh units and specific gravity) were unaffected by any level of DDGS inclusion (Table 2). A transitory increase in feed intake occurred during the first cycle as a result of low (65 degrees F) temperature in the test facility and feed in-

<table>
<thead>
<tr>
<th>Measurements</th>
<th>0</th>
<th>5.0</th>
<th>10.0</th>
<th>15.0</th>
<th>20.0</th>
<th>25.0</th>
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</thead>
<tbody>
<tr>
<td>Egg Production (%)</td>
<td>92.1</td>
<td>89.2</td>
<td>90.7</td>
<td>89.6</td>
<td>91.2</td>
<td>91.0</td>
</tr>
<tr>
<td>Feed Intake (g/d)</td>
<td>109.2</td>
<td>110.9</td>
<td>110.3</td>
<td>108.3</td>
<td>108.7</td>
<td>109.2</td>
</tr>
<tr>
<td>Weight Gain (kg)</td>
<td>0.15</td>
<td>0.15</td>
<td>0.14</td>
<td>0.13</td>
<td>0.09</td>
<td>0.10</td>
</tr>
<tr>
<td>Haugh Units</td>
<td>92.42</td>
<td>92.04</td>
<td>91.00</td>
<td>92.15</td>
<td>92.89</td>
<td>92.46</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.086</td>
<td>1.085</td>
<td>1.086</td>
<td>1.086</td>
<td>1.056</td>
<td>1.086</td>
</tr>
<tr>
<td>Significance</td>
<td>NS*</td>
<td>NS*</td>
<td>NS*</td>
<td>NS*</td>
<td>NS*</td>
<td>NS*</td>
</tr>
</tbody>
</table>

NS: p>0.1. (Scheideler et al, 2008)

Table 2. EFFECT OF VARIOUS LEVELS OF DDGS ON EGG PARAMETERS, FOR PHASE 1 PRODUCTION

Editor’s note: The pre-show nutrition symposium at the Midwest Poultry and Egg Convention in St. Paul, Minn., reviewed the potential application of glycerin and distillers’ dried grains (DDGS) as ingredients in layer diets. Both ingredients are byproducts of biofuel industries.
take was depressed during the second phase over a short period as a result of hot weather. Average egg weight was significantly (p>0.05) at the 20 to 25 percent inclusion rate.

Average yolk color increased proportionately to the DDGS content with a range on the Roche scale of 5.6 to 7.2 units. During the second phase extending from 46 to 76 weeks there were no differences or trends in egg production, egg weight, specific gravity or Haugh unit values. During the second phase, total sulfur containing amino acid level was increased from 0.71 to 0.78. This change was probably responsible for consistency in egg weight among treatments.

Based on the three-fold concentration effect from the corn supplied to the refinery, mycotoxicosis is regarded as a potential problem with DDGS. The level of seven significant mycotoxins in the DDGS used in the trial was assayed. The level of these compounds and the accepted limits of inclusion are shown in Table 3.

Based on the comprehensive study, there is no reason why DDGS should not be added to diets at levels of up to 25 percent, providing nutrient composition corresponds to the values assayed in the trial consignment. Results would of course not necessarily be applicable to DDGS samples of inferior quality or containing mycotoxins contaminants.

A parallel study of pullets was fed diets containing increments of DDGS ranging from 2.5 to 12 percent. There were no significant differences in feed intake or weight gain which were both consistent with controls which conformed to the Hy-Line W-36 standard.

Problem
The only outstanding problem relating to the use of DDGS other than consistency and quality relates to the possible contamination with virginiamycin. Lactrol, a commercial form of the antibiotic, is added to reaction vessels to suppress Lactobacilli which divert corn energy into lactic acid and decrease the yield of ethanol. Providing refineries apply lactrol below the recommended level of 25 ppm, there will be no detectable residue of virginiamycin in DDGS applying the FDA-approved microbiological assay which has a detection threshold of 0.5 to 1 ppm. of active antibiotic.

Virginiamycin is not absorbed from the intestinal tract and there is no practical risk of retention or deposition in fat or in eggs. This was demonstrated during the 1980s when no residues could be detected in the eggs of hens fed 20ppm virginiamycin over a prolonged period.

Currently, FDA has not licensed virginiamycin inclusion in layer diets although levels of up to 30 to 50 ppm are allowed for swine, broiler and turkey rations depending on species and age. Applying a strict interpretation of the FDA rule, virginiamycin may not be added knowingly to diets.

If DDGS samples do not reveal the presence of residual virginiamycin using the approved microbiological assay, the ingredient can be used in conformity with federal regulations. European regulators use an ELISA assay to screen for virginiamycin in ingredients and diets. This highly sensitive assay will detect both virginiamycin in the active form and the derived degradation products. Application of this test in the United States has demonstrated some samples with either virginiamycin or derivatives, but the levels are below the threshold of detection using the microbiological procedure which obviously only detects active virginiamycin.

Financial Benefits
DDGS has obvious financial benefits given prevailing values for corn and soybean meal and alternative energy sources. Incorporation of up to 15 percent DDGS is both practical and financially beneficial. The issues of variability and nutrient content can be overcome using a standardized ingredient subject to quality control and assay.

The present legal problem of possible virginiamycin residues should be overcome by an anticipated “no objection” ruling from the FDA. Improved production practices in refineries and the substitution of Lactrol by an alternative inhibitor of lactobacilli may also be possible solutions.

### Table 3. Assay Levels of Mycotoxins in DDGS Incorporated into Test Diets

<table>
<thead>
<tr>
<th>Mycotoxin</th>
<th>Assay Level</th>
<th>Accepted Tolerance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aflatoxin</td>
<td>9.4 ppb</td>
<td>0.5 ppm</td>
</tr>
<tr>
<td>DON</td>
<td>1.1 ppm</td>
<td>20 ppm</td>
</tr>
<tr>
<td>Fumonisin</td>
<td>2.7 ppm</td>
<td>70 ppm</td>
</tr>
<tr>
<td>Ochratoxin</td>
<td>3.0 ppb</td>
<td>2.0 ppb</td>
</tr>
<tr>
<td>T2</td>
<td>0.1 ppm</td>
<td>2.0 ppm</td>
</tr>
<tr>
<td>Zearalenone</td>
<td>150 ppb</td>
<td>200 ppb</td>
</tr>
</tbody>
</table>

**Scheideler et al, 2008**
**Midwest Poultry Convention Showcases New Products**

By Dr. Simon M. Shane

From the perspective of egg production, the annual Midwest Poultry Federation Convention incorporates a valuable trade show focused on egg production. The Midwest show provides representatives of the major producers and individual farmers and contractors the opportunity to review new products and to be informed of commercially available products for disease prevention, nutrition, pest control and housing. Given the current relative profitability of the egg industry, there was considerable interest in both re-caging of houses and floor systems.

**Alternative Housing Systems**

**Big Dutchman**

Big Dutchman demonstrated models of their Natura multi-level rearing and aviary systems. It is now generally accepted that optimal performance in multi-level aviary systems can only be achieved if pullets are reared using installations which are compatible with the laying house.

Features of Natura rearing installations include on-belt manure drying, fold-down perches, concentrated brooding for the first 10 days with transfer through the 20th day and a folding cage front, which can be opened for access to the entire house after 3 weeks of age depending on strain and temperature.

The Natura rearing system incorporates compartments that can be used to confine pullets for vaccination, weighing or transfer. This system is available to accommodate up to 60,000 birds in a unit 320 feet long by 40 feet wide.

The Big Dutchman Natura aviary incorporates plastic slats, on-belt manure drying and a choice of colony egg collection modules. Both nest systems incorporate center-belt collection and a mechanical ejection system to prevent roosting in nests. Available in a variety of configurations suitable for either single or two-story houses, Natura systems can be installed in new or retro-fit applications.

**Farmer Automatic**

Farmer Automatic of Germany has supplied a number of successful installations into the United States. Their floor system includes on-belt manure removal, mesh flooring and colony nests with center belt collection and expellers. The Farmer Automatic aviary system comprises modules which allow for perching, feeding and egg collection on the center tier.

**Chore-Time**

Chore-Time Egg Production Systems introduced a new on-belt manure drying installation. This uses either a central dryer or existing side-wall fans. The system can be extended to up to 14 tiers high depending on the desired moisture content.

An auger loads manure evenly over the top belt and incorporates an air bypass to facilitate control of static pressure in the house.

The manure belt is 60 percent thicker than a conventional under-cage belt for durability and capacity and is supported by crossbars. The manure drying system can be housed in a longitudinal extension parallel with the side of the house as a retro-fit.

**Disease Prevention**

**Biomune**

Biomune, now part of the CEVA group has introduced a chlorine neutralizer that incorporates a blue dye and pH stabilizer to potentiate the potency of vaccines administered in drinking water. Cevamune effervescent tablets neutralize up to 10 ppm of free chlorine within 10 minutes. One tablet is added to 26 gallons of water and is active for up to 4 hours. The product can also be used for spray application. Successful water vaccination is indicated by blue stained tongues, or in the case of spray, blue staining of feathers.

Biomune now markets Vectormune HVT-vectored IBD vaccine. The product can be administered by subcutaneous route to day old pullet chicks to provide protection against both ND and IBD. The manufacturers claim protection irrespective of maternal antibody level with a duration of immunity extending beyond 5 weeks of age with efficacy against both classic and Delaware variant strains. Currently, Biomune is positioning the product as a single protective vaccine to provide lifetime protection. The ability of this product to provide protection through the window of susceptibility of layer strains will have to be evaluated under commercial conditions to confirm that booster vaccines during the rearing period are not required.

**Intervet**

Intervet, now part of Schering-Plough, markets Innovax-ILT, comprising a genetically-engineered HVT vector expressing two glycoprotein genes for ILT virus. This vaccine will eliminate the problem of latent dissemination associated with live attenuated chick embryo LT vaccines. Innovax-ILT is administered by subcutaneous injection to pullets at the hatchery.

**Ingredients**

**Poet Nutrition**

With the unprecedented rise in the cost of corn, dried distillers grains with solubles (DDGS) derived from ethanol fermentation is now incorporated in layer diets at levels up to 12 percent. The marked variability in composition and availability of amino acids has restrained more extensive use of DDGS.

Poet Nutrition markets Dakota Gold Brand DDGS. The product is derived from over 20 plants in the Midwest and High Plains that conform to rigid standard of processing to ensure consistency and quality. Batches of product are analyzed to ensure conformity with predetermined protein, energy and amino acid content. This allows nutritionists to be confident
of values entered into their ingredient matrices.

**Enzymes**

A range of enzymes are available to enhance the nutritional value of cereal ingredients. These function by degrading non-starch polysaccharides to enhance energy values and improve amino acid availability.

Products that were offered include Hostazym from Huvepharma, Versazyme from BioResource International Inc., Alzyme SSF and Veg-Pro from Alltech and Hemicell manufactured by ChemGen Corp.

**Chick Processing**

**Nova-Tech**

Nova-Tech displayed a prototype chick processing installation. This unit comprises a carrier to hold and convey a newly-hatched chick through a series of work stations. These may include infrared beak treatment, subcutaneous administration of vaccine into the neck, eye drop vaccination or injection of a hydrating agent. When fully developed, the Nova-Tech concept will incorporate machine vision to tailor beak length and inject hydrating solution appropriate to the size and weight of the chick.

**Biosecurity**

**Hydro-Chem**

Hydro-Chem Systems has developed a range of vehicle wash modules to decontaminate feed trucks and trailers. These use specially designed high pressure nozzles to decontaminate under the chassis, wheels and irregular surfaces of feed trailers prior to application of a sanitizer.

**In-house composting**

**Brown Bear Corp.**

Brown Bear Corp. manufactures a rotary aerator attached to a skid steer loader that effectively mixes and aerates manure windrows under cages in high-rise houses. The unit can accommodate cones 3 feet high and up to 7 feet wide. Aeration cycles require approximately 45 minutes for a 400-foot house operating at walking pace.

The Brown Bear aerator can be detached rapidly from the skid steer unit to attach an excavating bucket or lifting forks. This unit can be used in relatively small operations where manure is removed from houses 3 to 4 times annually.

For larger installations, purpose-built agitators can be used that are capable of composting manure output from a 1 million to 1.5 million hen complex. For large complexes, Farmer Automatic offers the Compost-A-Matic available in five models which can operate in longitudinal pits located in a dedicated structure.

The various models of Compost-A-Matic operate in 200-foot pits ranging in width from 6 to 18 feet wide and 2 feet deep. The total composting cycle requires approximately 35 days depending on temperature, moisture, content and bulking additive.

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There is an urgent need for farmers to build consumer confidence and trust by demonstrating that they are producing food consistent with consumer values and expectations. Many challenges and opportunities ahead lie ahead, but the industry needs to maintain its social license to feed the additional 2.7 billion more people around the world in 20 years.

“One of the most crucial things to future success is the (egg industry’s) ability to protect and maintain freedom to operate,” Charlie Arnot, Center for Food Integrity, in the United States, said at last month’s International Egg Commission conference in London.

**Freedom to Operate**

A company’s freedom to operate could be protected by building trust, he said. Looking at trust in the food system revealed three primary drivers: influential others (those whose opinions are respected); competence (a company’s ability to do what it says it will do); and confidence (trusting a company to do what is right).

“If people trust us they will grant us the social license and protect our freedom to operate,” he added.

When the social benefit perceived is greater than the social cost, social license can be obtained. However, if the social cost is perceived to be greater than the social benefit, then social control can result.

**Social License at Risk**

In many countries that social license is under pressure. “When our customers start to tell us how to raise livestock our social license is at risk,” he asserted. The reason why: consumers have less confidence in the current model of agriculture. He continued, “We have to

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Charlie Arnot
give customers, policy makers, community leaders and consumers, ‘permission to believe’ that contemporary animal agriculture is consistent with their values and expectations.” Failure to do so could result in revocation of the industry’s social license and freedom to operate.

“We have to build and communicate an ethical foundation for our activity and engage in value-based communication if we want to build the trust that protects our freedom to operate.”

**Trust Growing for NGOs**

In the United States, trust has grown in non-government organizations (NGOs) and they are now the most trusted institutions. In contrast, trust in the government has declined sharply since 2002 to a new low in 2007 when only 38 percent of the population considered the government trustworthy.

When forming an opinion of a company, “people like me” has replaced traditional institutions, such as an academic or an industry analyst, as the most trusted source of information. Indeed, the rating for “a person like me” as being the most trusted source of information has tripled from 22 percent in 2003 to 68 percent today.

NGOs are considered to be principle-driven, which has given them credibility and public standing, committed to something other than self-interest. In contrast, business is perceived to be driven by profit and that creates a credibility gap, Arnott said.

“Not being profitable is unacceptable but what we have to be able to do is to help stakeholders understand that we are not just committed to profit but that we are also committed to principle and that these aims are not mutually exclusive,” he said.

In today’s world, market pressure is more effective than regulation. In the United States, as a result of the activities of animal rights groups, there is a growing interest in animal welfare law.

Arnott added that the market is now trumping public policy. It is no longer waiting for regulators or legislators to establish standards and practices. “This is the new reality that we need to learn to manage,” he added.

Consumer trust modeling has revealed that it is more important for the industry to communicate its commitment to do what is right than to talk about scientific validation that it is doing the right thing.
INDUSTRY CALENDAR

2008

JUNE
29 – July 4: XXIII World’s Poultry Congress.

JULY
6 – 10: 8th International Marek’s Disease Symposium
Southbank Convention Centre, Townville, Queensland, Australia. In conjunction with the 10th Avian Immunology Research Group Meeting and the XXII World’s Poultry Congress and the 6th Asia-Pacific Poultry Health Conference. Details from Dr. Graham Burgess, School of Veterinary and Biomedical Sciences, James Cook University, Townsville, Queensland, Australia; Phone +61 7 4781 5472; Fax +61 7 4781 6833; E-mail graham.burgess@jcu.edu.au. Website www.jcu.edu.au/events/mds.

SEPTEMBER
10: Delmarva Poultry Conference
Sponsored by the University of Delaware and the University of Maryland. Clarion Hotel, Ocean City, Md. Details from Jennifer Timmons; Phone (410) 742-8788; Email mdchick@umd.edu.

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