

# Egg Industry

News for the Egg Industry Worldwide

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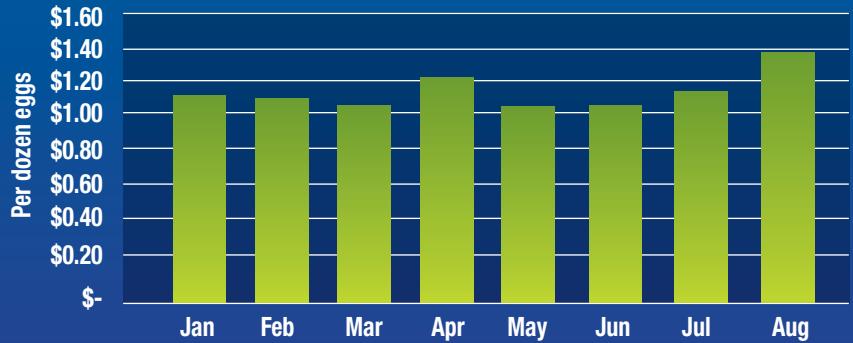
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**Laying hen behavior influenced by cage design**

Larger enriched enclosures allow hens to exhibit all natural behaviors, but behaviors like nesting, dust bathing and perching need to be managed properly to obtain peak production.

### 2011 Monthly Average Uner Barry Midwest Large Egg Quote



The average Uner Barry Midwest quote for large eggs rose to a high enough level in August, \$1.353, to return the industry to profitability, according to Egg Industry Center estimates.

### Egg safety rule gives pest control a boost



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Rodent and fly control programs on egg farms are an important part of Salmonella enteritidis prevention efforts.

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## EDITORIAL

BY TERENCE O'KEEFE

# Grain prices not the most disruptive challenge for egg producers

*Animal welfare issues have the U.S. egg industry at a tipping point.*

**T**hrough early September, all of the news about this year's U.S. grain harvest has been bad. Each successive estimate results in yet another reduction in the expected harvest. Coupling demand estimates with the forecasted harvest has analysts predicting the lowest corn carryover going into the 2012 harvest that the U.S. has experienced since 1996. I remember 1996 as the year when the term "fiscal austerity" took on real meaning for poultry operations. Given the market situation, you would think that grain price and availability would be the biggest challenge facing egg producers, but I think something else will have a bigger impact on the egg industry in coming months.

The Humane Society of the United States will bring great change to the egg industry. Even if Congress doesn't pass legislation making provisions of the agreement the law of the land, the genie is out of the bottle and how layers are housed in this country will

change. The UEP-HSUS agreement provides a framework for an orderly transition from the current cages and housing densities to enriched colony housing at much lower densities. Without passage of the legislation, a transition away from the industry standard battery cages will take place; it just won't be a smooth one.

Disruptive forces bring change and innovation in free market systems. Animal welfare issues have the egg industry in the U.S. at a tipping point, and change is coming. How fast and how smooth the transition out of battery cages will be determined by the success or failure of lobbying efforts by UEP and HSUS. I think that there will be more disruption and a faster transition to alternative housing systems if the legislation is not passed. Remember, producers supplying the California market have to change by January of 2015, no matter what happens with the legislation. The country may become a bunch of separate markets for egg with some states having strict laws while in other states anything goes. It all makes \$8 per bushel corn seem like a small problem to have.

*Terence*

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# Egg producers hear case for laying hen welfare agreement

*Record crowds at UEP area meetings are presented with the particulars of the welfare agreement negotiated with HSUS.*

By Terrence O'Keefe

The United Egg Producers used its area meetings in late August to educate its members on the details of the agreement the organization negotiated with the Humane Society of the United States, and to seek feedback from rank-and-file members. At the Area 5 meeting in Atlanta, Gene Gre-



**Gene Gregory, president and CEO, UEP: "Getting HSUS to accept enriched colony housing was a huge deal."**

gory, president and CEO, UEP, explained the process undertaken to negotiate the agreement and presented the timetable for implementation. Other topics were also addressed at the meeting, but the UEP-HSUS agreement dominated the discussions in the meeting room and in the hallway.

## Seeking common ground

HSUS has been committed for years to getting laying hens out of cages, but Gene said that UEP got a tip that Wayne Pacelle, president, HSUS, might be interested in talking to UEP about enriched colony enclosures as an alternative to traditional cages for layers. In



**Chad Gregory, senior vice president, UEP, initiated welfare and housing discussions with HSUS.**

March of 2011, Chad Gregory, senior vice president, UEP, had a first meeting with Pacelle at which he raised a number of questions with HSUS. According to Chad, UEP wanted to know if HSUS would accept enriched colony housing, whether conflicts over state legislation and

## UEP and HSUS agreement details

UEP and HSUS will be working together to lobby Congress to enact changes to the Egg Products Inspection Act, which would make the details of their agreement on laying hen welfare the law. The following timetable was agreed to by UEP and HSUS; some dates are already established, and others are set relative to the date legislation is enacted.

### For existing housing:

- >Four years from enactment: White layers and brown layers must have 67 and 76 square inches per bird, respectively.
- >Six years from enactment: At least 25% of the industry must be converted to enrichable colony cages, at 90 and 102 square inches per hen for white hens and brown hens, respectively.
- >By the end of 2018: The secretary of agriculture will have conducted a national survey of the industry to determine if 25% of the industry's hens are in enrichable cages. If not, then by December 31, 2019, any equipment older than 1995 has to be converted or closed.
- >12 years from enactment: At least 55% of the industry must be converted to fully enriched colony\* cages, 113 and 130 square inches per hen for white hens and brown hens, respectively. There is no survey conducted at 12 years and no penalty for not meeting the 55% goal.
- >As of December 21, 2029: All housing converted to fully enriched colonies with 124 and 144 square inches per bird for white layers and brown layers, respectively.

\*Fully enriched colony means the enclosure has nest space, dust bathing areas and perch space; no specific measurements for any of these enrichments are included in the agreement.

### For equipment installed after December 31, 2011:

- >Three years after enactment: White hens and brown hens housed at 78 and 90 square inches per bird in enrichable cages.
- >Six years after enactment: White hens and brown hens housed at 90 and 102 square inches per bird in enrichable cages.
- >Nine years after enactment: White hens and brown hens housed at 101 and 116 square inches per bird in fully enriched colony cages.
- >12 years after enactment: White hens and brown hens housed at 113 and 130 square inches per bird in fully enriched colony cages.
- >15 years after enactment: White hens and brown hens housed at 124 and 144 square inches per bird in fully enriched colony cages.

For equipment installed between January 1, 2008, and December 31, 2011, producers will have until December 31, 2029, to convert to fully enriched colonies or close them. Per the agreement, eggs from hens already in production on an increment date can continue to be sold without meeting the requirement until the flock is removed from production.

**Read more: Gene Gregory answers questions about the UEP-HSUS agreement in an interview at [www.WATTAgNet.com/25335.html](http://www.WATTAgNet.com/25335.html)**

ballot initiatives could be resolved, whether a standard for housing for California's Proposition 2 could be agreed to, whether HSUS would withdraw the ballot initiative for Washington State, and whether HSUS would drop future lawsuits and undercover investigations. At this meeting, Gregory said that several "deal points" were identified.

In April, UEP executive committee members were apprised of the deal points negotiated with HSUS. These deal points were approved by the executive committee and a decision was made to hold further discussions with HSUS. Gene said that the vote to approve the deal points was around 20-10 in favor, which he said was typical of all of the votes UEP held at each step during the negotiations. At the UEP Legislative meeting held in May in

after each meeting called for UEP to continue exploring possible agreements with HSUS.

### Signing the agreement

The negotiations faced an important deadline in early July, Gene said. The deadline for HSUS to submit the names they had collected for the ballot initiative in the State of Washington was July 8. He said that if UEP wanted to avoid another situation like it faced in Califor-

nia, the agreement needed to be completed before July 8, and it was (see boxes for explanation of timelines and details of the UEP-HSUS agreement).

On advice of legal counsel because of pending antitrust litigation, Gregory said that the particulars of the negotiations could not be shared with all UEP members until the agreement was made. "We would have loved to have everyone involved in the process, but we couldn't because

### Labeling requirements

One year from enactment all eggs and egg products must be labeled indicating the form of production.

- > "Eggs from caged hens" – Less than 101 and 116 square inches per bird for white hens and brown hens, respectively.
- > "Eggs from hens in enriched cages" – Must provide at least 101 and 116 square inches per bird for white hens and brown hens, respectively.
- > "Eggs from cage-free hens" – Birds are not caged but do not have access to outdoors.
- > "Eggs from free-range hens" – Birds have access to outdoors.

Washington, D.C., the deal points were shared with the board of directors and UEP members in attendance during a producers-only meeting; allied members of UEP were not allowed to attend. During this session, a motion was passed calling for UEP to petition the federal government in cooperation with HSUS to transition the industry to enriched colony housing.

Throughout May, June and July, negotiations with HSUS continued, according to Gene, through a series of face-to-face meetings and conference calls. UEP chairman Bob Krouse appointed a special advisory committee, with many animal welfare committee members on it, to offer counsel during the negotiations. Gene said that a series of conference calls and meetings were held with the special advisory committee, and that the board of directors had five conference calls and two face-to-face meetings. He reported that votes

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of antitrust concerns,” Gene said. “Advice from council said this was necessary.”

### Producer feedback wanted

Now that the details of the agreement can be shared with everyone, Gene asked that members submit questions and comments to UEP. He said that everyone needs to pull together and help lobby for the agreement to become law. UEP and HSUS will ask Congress

### Rules for eggs and egg products sold in California

- >As of January 1, 2015: all eggs and egg products sold in California must be produced in fully enriched cages with 116 and 134 square inches per bird for white hens and brown hens, respectively.
- >As of January 1, 2021: all eggs and egg products sold in California must be produced in fully enriched cages with 124 and 144 square inches per bird for white hens and brown hens, respectively.

### Other key components of the agreement

#### Two years from enactment of legislation:

- >Humane euthanasia consistent with American Veterinary Medical Association methods.
  - >No feed or water withdrawal for molting.
  - >Air quality not to exceed 25 parts per million for ammonia during normal operations.
- By January 1, 2013, the UEP Certified program is revised to be consistent with terms of this agreement.

By January 1, 2015, UEP, UEP Science Committee and HSUS will collaborate on research designed to reduce osteoporosis and bone breaks in hens and have elimination of beak trimming as a goal.

#### Immediate actions:

- >HSUS will not pursue ballot initiatives in Oregon or Washington prior to enactment of this legislation.
- >HSUS will not initiate, fund or support any state legislation or ballot initiatives against the egg industry while the agreement is in force.
- >HSUS will not initiate, fund or support litigation or investigation of UEP or its members while the agreement is in force.
- >HSUS will not fund or support any organization for the specific purpose of achieving a result contrary to this agreement.

to amend the Egg Products Inspection Act to include the language of the agreement and to make this amendment part of the 2012 Farm Bill. The goal is to have legislation passed by June 30, 2012, and if not by then, before the next Congress is sworn in.

Gene said, “If we don’t get the legislation passed, what are we going to do? We put \$10

million into California (Proposition 2 campaign) and lost. Can we continue to spend millions of dollars to fight ballot initiatives?” He said that egg production in enriched colony housing is affordable and cage-free production is not. “Getting HSUS to accept enriched colony housing was a huge deal,” Gene said. “Our future is more certain now due to this deal.” **E**

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# Egg safety rule gives pest control a boost

*Rodent and fly control programs on egg farms are an important part of Salmonella enteritidis prevention efforts.*

By Terrence O'Keefe

**T**he role that rodents and flies can play as disease vectors has measures for their control receiving more attention over the last few years, because these pests can be responsible for carrying *Salmonella enteritidis* into the layer house. Robert Rowland, pest control specialist, IVESCO, said that when poultry primary breeders took steps to produce Salmonella-free eggs they demonstrated that it was possible to keep rodents out of poultry houses.

“We showed 28 years ago with primary breeders that you can have poultry farms without rodents,” Rowland said. “It is possible, but most people still think that it isn’t. If you have a

ment; spraying the ground to kill the vegetation and have bare dirt would be next, and last would be cutting the vegetation really short,” Bagocius said. The sterile border creates a natural barrier, because rodents don’t like to be out in the open and exposed to predators. If rodents cross the barrier they will move along the exterior wall of the building looking for a way to get in. Perimeter bait stations should be placed every 50 feet along



It is important to select bait that rodents will “crawl over spilled feed” to get to. Photo courtesy of Motomco

the exterior wall of the building. Bagocius also said that the area around and between buildings needs to be kept mowed, and no equipment should be left around or leaning up against buildings.

## Maintain the exterior

The exterior of the buildings need to be maintained so that there are no holes or gaps that rodents can use to gain entry into the building. Bagocius said that welded seam hardware cloth with no greater than one quarter inch openings should be used to exclude rodents from areas like vents and soffits.

Selecting the right poisoned bait to use in traps plays a role in excluding rodents from a poultry house, according to Rowland. “You have to select the products that rodents will crawl over spilled feed to get to,” he said. Complicating the bait selection decision, Rowland

said, is the fact that what rodents like can change over time. Mice are more willing to try new things than rats are, but in order for a bait to be effective, the animal has to eat enough to kill them.

## Coping with deep-pit houses

Once inside the poultry house, rodents will look for food, water and a place to nest. Deep pit poultry houses can provide a big rodent control challenge for producers because dry manure piles under the cages are great for controlling flies, but they can provide lots of nesting space for rodents. Rowland said that to control rodents in a pit house you have to go down into the pit weekly and look for tunnels into the manure pile. Any tunnels should be baited to take care of the rodents that dug them. He said that growers should also look for fly larvae in the manure pile. “You can’t haphazardly take these steps; you have to do it on a regular program,” he said.

“Controlling rodents in the pit of deep pit houses is difficult,” Bagocius said. “Wherever you have an unlimited sup-



Rodent control experts recommend a three-foot-wide sterile border be maintained around the perimeter of poultry barns. Photo courtesy of Motomco

good preventative program and stick with it, you don’t ever have to see rodents inside your building.”

Christian Bagocius, business development manager, Motomco, works with producers in eight western states on rodent control programs. “We recommend a three-foot sterile border around the perimeter of the house. The premier border is crushed rock or ce-



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ply of food, water and harborage, you will have rodents.” He said that live catch traps and snap traps can be strategically placed around the manure piles in a pit house, since most houses do have room for them in between the manure piles. Bait stations, live traps and snap traps located inside the poultry house provide a last line of defense trying to keep the rodents from coming into contact with the layers.

**FDA inspections of egg farms checking for compliance to the Egg Safety Rule have provided a stimulus for many farms to recheck their pest control programs. Monitoring rodents and fly populations in the layer house is required by the Egg Safety Rule.**



**Excluding rodents from layer houses means making sure doors close all the way and patching any holes in the exterior of the building with rodent-proof materials. Photo courtesy of Motomco**

### Fly control

Fly control used to be more difficult than rodent control, according to Rowland. The introduction of insect growth regulator products has changed all this. IGR products can be sprayed on manure to keep the larvae from developing and this breaks the life cycle. Rowland said that when using IGR products you still have to take other steps for controlling the adults and manure management still plays a key role, but the entire process has gotten easier.

### Preparing for an FDA inspection

FDA inspections of egg farms checking for compliance to the Egg Safety Rule have provided a stimulus for many farms to recheck their pest control programs. Monitoring rodents and fly populations in the layer house is required by the Egg Safety Rule. The first thing that growers should do, according to Rowland, is check their paperwork, because that is the first thing the FDA inspectors will do. Read your pest control programs and make sure you are following them and documenting all of your checks.

SE monitoring of the environment inside the layer house is part of the Egg Safety Rule and United Egg Producers' 5 Star program. Any SE-positive sample requires that shell eggs be diverted, and this has a cost to the producer and has provided an incentive to take pest control to another level. “Growers have to take it (rodent control) seriously now that they know the consequences of an environmental positive and diverting the eggs,” Bagocius said.

Fortunately, doing a better job of pest control on your farm doesn't really have to cost more money long term, Rowland said, “When you are in cleanout mode, reducing the number of flies and rodents, it can get pricey for the control measures, but long term you actually wind up spending substantially less because you never have populations that get out of control.”

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# Laying hen behavior influenced by cage design

*Larger enriched enclosures allow hens to exhibit all natural behaviors, but behaviors like nesting, dust bathing and perching need to be managed properly to obtain peak production.*

By Sheila E. Purdum, Professor, Department of Animal Science, University of Nebraska, spurdum2@unl.edu

**T**he effects of cage design on bird welfare were presented at the International Society of Applied Ethology's annual meeting in Indianapolis between July 31 and August 4. This is the second time I have attended the meeting and presented research results, and perhaps the most significant impression I come away with each time is the diversity of worldwide perspective toward research regarding the care and welfare of poultry.

## Effects of cage design

Starting with a U.S. study presented by authors from the University of California, Davis, Purdue University, Washington State University and Mississippi State University; Dr.

▶ **Lower perches seem to be a promising remedy for decreasing the high incidence of broken eggs in furnished cages.**

Joseph Garner presented an epidemiological study on the effects of cage design on mortality in White Leghorn hens. This was a cross-sectional survey combining on-farm measurements and production records from 167 commercial laying hen houses. Results of the survey showed lower mortality in A-frame versus vertical cages, at an optimum floor space of 70 square inches per hen, in deep versus shallow cages, as feeder space per hen increased, with the use of nipple drinkers, in the W-36 strain of Leghorn hens, with evaporative cooling, with lower caloric intake, at lower light intensities and in flocks with cleaner feathers. The authors summarized that there are several risk factors for mortality associated with cage design, genetics, environment and diet.

In our research at the University of Nebraska, we compared feather loss in solid-sided cages to wire-sided cages over time in a flock of White Leghorn hens, and we tested dietary zinc supplementation as a preventative for feather loss. Our results showed no effects of zinc supplementation on feather loss, but did show significantly less feather loss in solid-sided cages compared to wire-sided cages, which further re-

sulted in positive effects on hen body weight gain and quality of eggs produced.

## Enriched cages

Research conducted jointly between the University of Melbourne in Australia and Wageningen University in the Netherlands looked at the effects of enriched cage design on consistency of orientation and location during oviposition of laying hens. They studied floor space allowance and nest box access effects with Brown Leghorns. When hens were given more space, they had less variation in their timing of oviposition, likely due to less interference because of crowding during the sitting phase of oviposition, according to the authors. Hens with access to a nest box were also more consistent in site and orientation of oviposition. The authors conclude that the affect of housing design on egg laying behavior requires further research, as there is little data available on the effects of stress on consistency of egg laying behavior.

The University of California, Davis group (Alvino, Archer



**In addition to reducing feather loss, hens in solid-sidewall cages had better weight gain and laid higher quality eggs in university research.**



**In university research, hens housed in wire-sided cages had more feather loss than hens in cages with solid sidewalls.**

and Mench) presented a paper on Astroturf as a dust bathing substrate for laying hens. They conducted their research with White Leghorn hens in furnished cages containing an Astroturf pad that is often sprinkled with feed to promote dust bathing. The objective of the trial was to evaluate dust bathing in cages with Astroturf with or without feed, and a control with a sand dust bathing substrate. It was also noted if birds tried to dust bathe on the wire cage floor.

During the first trial they reported fewer dust bathing bouts on sand and on the wire floor compared to Astroturf with or without feed during the first period of study. Hens in sand also spent less time dust bathing on wire and more time dust bathing on substrates. After the initial trial, the dust bathing substrates were switched so that birds that had been in cages with Astroturf mats now had sandboxes and controls had Astroturf, and so on. At the end of the three trials, each group of birds had Astroturf for one trial, a sandbox for another trial and neither a sandbox or Astroturf for one trial.

During the second and third trials, there were no differences in time of hens spent dust bathing. The findings suggest that Astroturf might not be an adequate dust bathing substrate even with feed and that exposure to Astroturf may even be aversive to hens as the proportion of dust bathing bouts in sand decreased after exposure to Astroturf.

### Broken eggs

A group of scientists from the University of Ghent in Belgium looked at remedies for the high incidence of broken eggs in some furnished cages: effectiveness of increasing nest attractiveness and lowering perch height. They reported that nesting material (artificial turf vs. plastic wire mesh)

influenced the location of egg cracks, but not the percent of eggs broken or laid outside the nest. Cages with low perches

(7 centimeters high) had a lower incidence of total eggs broken and laid outside the nest box compared to cages with high perches (24 centimeters). Lower perches seem to be a promising remedy for decreasing the high incidence of broken eggs in furnished cages, more so than the provision of Astroturf as a nesting material. These authors also reported observations on their videotapes of hens actually dropping/laying their eggs from the perches when nest boxes are occupied continuously by a “boss” hen.

### New challenges

After listening to these presentations, I have several thoughts for us to ponder. The first is: Are the furnished cage designs available in today’s marketplace reflective of the most current research findings? Can nest box space be improved to provide more access for the timid hen and less breakage of eggs laid from perches? I feel that research efforts regarding design and welfare questions surrounding laying hen production are still in their infancy, especially in the U.S. Future research efforts such as the LayWel project in Europe and efforts of the Northeast Regional Poultry Research multi-state project NE-1042 “Optimization of Poultry Welfare and Production Systems for the 21st Century,” should help find answers for these important questions as our egg industry faces new challenges related to their production systems. **EI**



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## Panel presentation from National Chicken Council conference available

At the National Chicken Council 57th Annual Conference October 5, in Washington, D.C., a panel of senior executives from U.S. chicken processing companies addressed current agricultural, public affairs, legislative, regulatory, political, economic and world trade issues.

The audio and photos from this valuable presentation are available as a series of videos at [www.WATTAgNet.com/25988.html](http://www.WATTAgNet.com/25988.html). Simply login or sign up as a user on [www.WATTAgNet.com](http://www.WATTAgNet.com) to access the videos and catch all that happened at the industry

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**Snap this QR code with your smartphone to access the NCC conference presentation.**

panel discussion.

The presentation is sponsored by Pfizer Animal Health Global Poultry.

Don Jackson, president and CEO, JBS USA, moderated the discussion and panelists included:

- ✓ William Andersen, senior vice president, Keystone Foods
- ✓ Mike Helgeson, CEO, GNP Company
- ✓ Mark Kaminsky, COO and CFO, Koch Foods
- ✓ Clint Rivers, senior vice president, operations, Perdue Farms

## US shell eggs broken up first half 2011

From January through July 2011, shell eggs broken in the U.S. totaled 1.21 billion dozen, up 2% from the comparable period in 2010, according to the U.S. Department of Agriculture.

Cumulative total edible product from eggs

broken in 2011 through July was 1.57 billion pounds, up 2% from 2010. Of this, 946.7 million pounds were whole egg products, 411.2 million pounds were egg white products and 210.1 million pounds were egg yolk products.

Shell eggs broken totaled 180 million dozen during July 2011, up slightly from July 2010, but 3% below the 185 million broken in June 2011.

## US egg production rises first half 2011

In the first half of 2011, production of table eggs was 3.3 billion dozen, up about 1% from the first half of 2010, according to the U.S. Department of Agriculture. However, production of hatching eggs fell by 0.7% compared with 2010 numbers.

The decrease in hatching egg production was chiefly the result of the gradual decline in broiler chick production for growout, according to the USDA. Hatching egg production in



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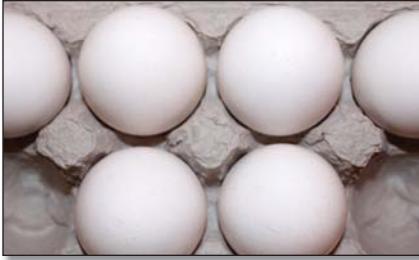
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**US table egg production was up and hatching egg production was down for the first half of 2011.**

the first half of 2011 was 532 million dozen. Production of table eggs in the second half of 2011 is expected to be about even with 2010, and production is expected to be lower on a year-over-year basis in the first two quarters of 2012. Production of hatching eggs, especially those from meat-type birds, is expected to decline in the second half of 2011 as broiler chick production continues to be below 2010 numbers.

Even with higher table egg production in the second quarter of 2011, prices for eggs remained strong and averaged almost \$1.07 per dozen, up 24 cents from the second quarter of 2010. With little or no growth expected in the second half of 2011, prices are expected to be above 2010 numbers in the third quarter of 2011 at \$1.04 to \$1.08 per dozen. However, with the weak economy, egg prices in the fourth quarter of 2011 are expected to be lower than 2010 at \$1.12 to \$1.18 per dozen. The weak economy is expected to provide less of a seasonal boost in prices than in other years. **E**

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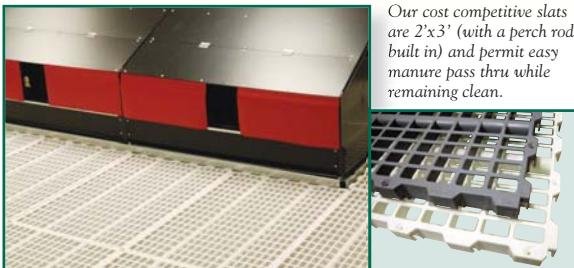
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# ▶ PRODUCT NEWS

## Sanovo Process Solutions DELVONis



Sanovo Process Solutions' DELVONis is a Nisin-based product that has an anti-microbial effect on gram-positive bacterias. DELVONis is added to liquid egg product before pasteurization in powdered form and can be suspended in water first to ensure better distribution, the company says. According to Sanovo, DELVONis can be used in all liquid egg products as well as prepared products, and is tasteless and allergen-free.

[www.sanovogroup.com](http://www.sanovogroup.com)

## TKF Inc. Valu-Lift

TKF Inc. says its Valu-Lift is a 4-strand, continuous lift conveyor designed to handle cartons and other



smooth-bottom unit loads up to 50 pounds. The conveyor platform consists of interlocking molded polymer flights with steel connecting pins. The conveyor lifts at a maximum

speed of 118 fpm, and can operate in up, down and reversible modes, according to TKF. Standard net lifting heights range from 8-foot to 14-foot. Standard safety features include a 24 volt DC control, current sensing relay and enclosed shroud-type tunnel guards.

[www.tkf.com](http://www.tkf.com)

## Big Dutchman Inc. WIN4 egg weighing system

Big Dutchman says its WIN4 egg

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weighing system allows egg belts to be advanced multiple times per collection cycle to avoid egg collisions and distributes egg flow evenly along the egg belt. The system has two channels per bird group and four channels recommended for houses with more than 20,000 total hens. Target weight can be adjusted to adapt weights to a specific weekday. The egg belt offers three different weighing procedures: nominal weight exceeded, average value of the nominal weight exceeded, or average value of all channels or nominal weight of one channel exceeded.

[www.bigdutchmanusa.com](http://www.bigdutchmanusa.com)

### Chore-Time Chore-Tronics Ethernet Local Talk Interface

The Chore-Time Chore-Tronics Ethernet Local Talk Interface gives users with Internet access the ability to manage and control house operations from anywhere in the world and remotely monitor his or her farm and make adjustments to control settings as needed. The ELT Interface converts information

from Chore-Tronics 2 Controls into a Web friendly format for viewing control settings and house conditions or for making changes. It permits authorized users to view Chore-



Tronics 2 Control information via a Web display of the control screen using a Web browser on Java-compatible computers and mobile devices. Authorized users can also use the ELT unit in place of a phone line and modem to view data from Chore-Tronics 1 or 2 Controls using Chore-Time's C-Central Professional Software.

[www.choretimepoultry.com](http://www.choretimepoultry.com)

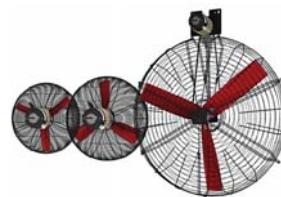
### Tecno Poultry Equipment Anaconda

Tecno Poultry Equipment says the Anaconda system is ideal for transporting eggs from the head of the housing to the gathering centers. Standard widths from 40 cm to 100 cm are available based on a

plant's egg gathering requirements. The Anaconda system consists of stainless steel, anodized aluminum and technopolymers. The Anaconda system allows eggs to be conveyed around bends, or up or down slopes. The speed of the belts is variable to adjust egg flow in relation to the sorting or packaging machine's capacity. The conveyor's egg counting system counts eggs from each belt, storing totals per level and per building for one week.

[www.poultryequipment.com](http://www.poultryequipment.com)

### Vostermans Ventilation Multifan basket fans



Vostermans Ventilation Multifan basket fans offer high air capacity (up to 48,000 m<sup>3</sup>/h at 0 Pa), high throw (up to

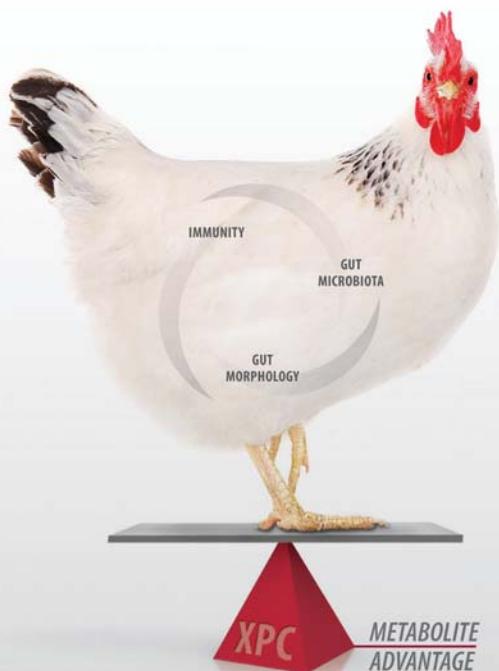
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146 m), and are speed controllable. Due to a large choice in frequencies, voltages, dimensions and materials (plastic and stainless steel impellers), these recirculation fans can be applied for ventilation in the agricultural industry.

[www.vostermans.com](http://www.vostermans.com)

### Green Earth Naturally LLC BioFlavX SC

Green Earth Naturally LLC offers a natural sanitizer, BioFlavX SC. BioFlavX SC, the company says, is a blend of botanical extracts, organic acids, phytoalexins, essential oils, saponins, low-foam detergents and bioflavonoids in a concentrated form. The product can be used on eggshells to kill pathogens, viruses and fungi.

[www.greeneearthnaturally.com](http://www.greeneearthnaturally.com)

### bioMérieux VIDAS UP Salmonella (SPT) assay



The bioMérieux VIDAS UP Salmonella (SPT) assay utilizes phage protein technology, which delivers unprecedented specificity and sensitivity, to detect low levels of contamination in as little as 19 hours as compared to reference methods which require up to three days. The shorter time to detec-

tion, enabled by the new phage technology, will provide food producers with the ability to detect *Salmonella* with speed, reliability and ease to contribute to lowering the incidence of foodborne illness outbreaks.

[www.biomerieux-usa.com](http://www.biomerieux-usa.com)

### Smart Motion Robotics Inc. SmartTopper

Smart Motion Robotics Inc. offers the SmartTopper. The company says that SmartTopper is a robotic egg flat and packed case flat topper. The topper uses advanced vision to determine case contents or to locate flats on a moving belt prior to overwrap and can be configured with barcode recognition, according to the company. SmartTopper can place tops on flats prior to an overwrap or flats on 15 dozen or 30 dozen cased flats.

[www.smartmotion.com](http://www.smartmotion.com)

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Ad sizes start at one column by one inch and can be any size up to six column inches. Logos and photographs are acceptable. Add color for an additional \$30 per color per insertion. The rate for EGG INDUSTRY is \$130 per inch per insertion (1-time rate), \$120 per inch per insertion (6-time rate), and \$110 per inch per insertion (12-time rate). The production charge is included except for ads with excessive make-up demands.

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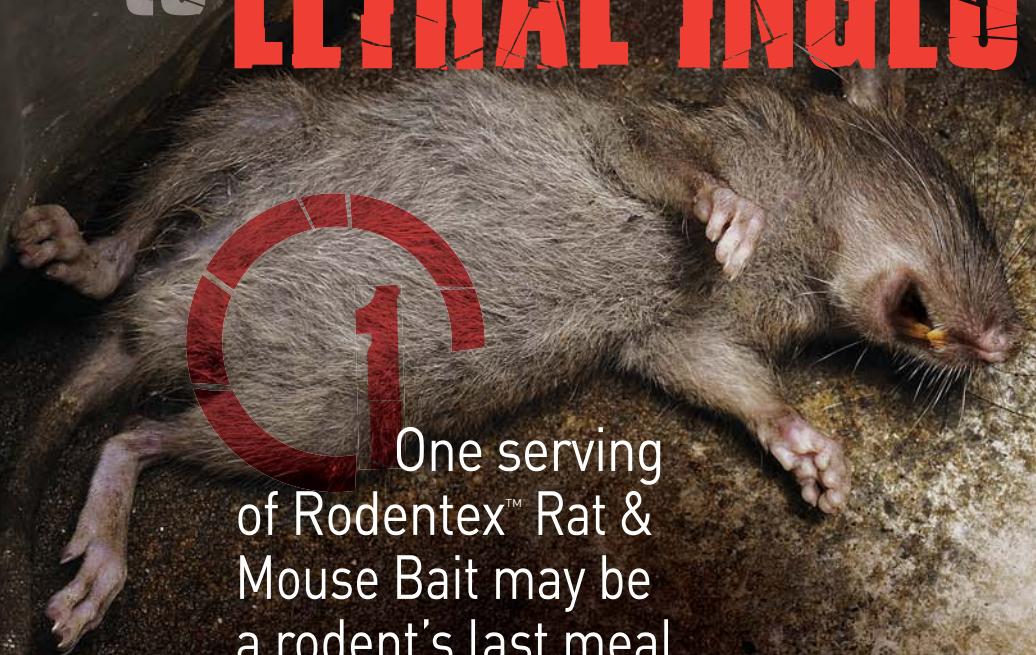
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