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## Iowa Egg Production Takes Break From Torrid Pace

By Edward Clark, Editor

After boosting layer numbers 12% in 2005 to lead all states in both a percentage basis and actual bird numbers, Iowa growth moderated last year, with layer numbers up 6% from the preceding year, according to USDA/NASS data. Iowa wasn't the only state that reined in growth in 2006. Just 10 states increased layer numbers last year, compared to 14 in 2005. U.S. layer numbers increased 1% last year, compared to no growth in 2005.

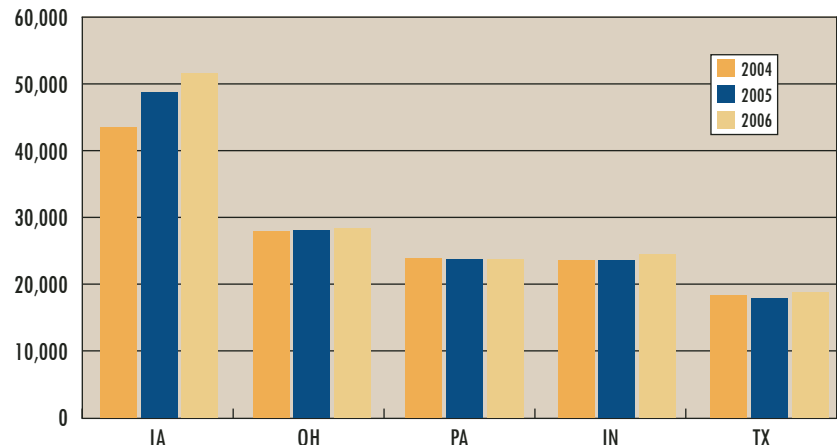
Leading the nation in percentage growth last year were Michigan and Illinois, both up 9%, but in actual bird growth, Iowa still eclipsed them both, adding 2.8 million layers, compared to 383,000 growth in Illinois and 711,000 in Michigan. Other states posting growth last year were Utah and South Dakota, up 5%; Indiana, up 4%; Texas, up 4%; West Virginia, up 2%; Ohio and North Carolina, up 1%.

The top five egg producing states either increased layer numbers or had no change: Iowa layer numbers were up 6% and Ohio up 1% as mentioned; Pennsylvania, no change in layer numbers; Indiana, up 4%; and Texas, up 4% and moving ahead of California, which had no change.

The biggest percentage declines in layer numbers last year were in Idaho, down 26%, and New Jersey, down 13%.

Looking at eggs per layer, the top five in 2006 were Montana, 305; Wyoming,

### Growth Rates in the Top Egg States



The above chart shows how layer numbers have changed over the past three years in the nation's top five egg producing states. (Source: USDA/NASS)

300; Massachusetts, 289; Colorado, 288; and New Jersey and New York, tied at 286. The U.S. average is 263. Iowa came in at 268 and Ohio at 265.

### Looking to 2007

In Michigan, this year's growth will likely be "50% of last year," says Mohamed Mousa, vice president of production for Herbruck's Eggs and Egg

Products, Saranac, Mich. Herbruck's was responsible for a good share of Michigan's growth last year, he says, "and we're winding down." Last year's growth was in traditional layers, although the company is adding some cage-free production in 2007.

Nationwide, Mousa does not look for major increases in layer numbers this year, despite current high prices.

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## Iowa Egg Production Takes Break From Torrid Pace |

Two reasons why, he says, include the difficulty in obtaining Environmental Protection Agency permits, and two years in a row of major losses that the industry has not fully recovered from yet, which creates problems on the lending side for expansion.

"We're not seeing a lot of expansion under construction," says Alan Koch, CEO of Henning Construction Co., Johnston, Iowa, although there is a lot in the planning stage. Much of the expansion Koch is seeing is in cage-free. The expansion he is aware of is pretty well dispersed among states. Henning is working on projects in Colorado, Missouri, California, and Texas, for example.

Gene Gregory, president of United Egg Producers, Atlanta, sees very little, if any growth this year in layer numbers, and neither does he see any significant state changes. He says that California's leveling off in layer numbers in 2006 is due largely to moderating growth in Iowa. California losses in recent years have been largely due to rapid growth in Iowa, he says.

Iowa still believes it is the best place to produce eggs, Gregory says, because grain prices are cheapest there. But growth has moderated because Iowa's egg breaker business has expanded more rapidly than market needs.

Part of the reason why Gregory does not look for increases in layer numbers

this year is the rapid increase in the price of corn and soybean meal. "There is a lot of concern out there." He does see additional growth in cage-free and organic production this year, but that largely will be replacing conventional production.

What actually needs to occur to maintain profitability, Gregory says, "is for 5 million birds to come out." The Urner Barry price east of the Rocky Mountains was \$1.06/dozen in mid-March. Gregory says that breakeven is currently about 85 cents, thus if egg prices drop 30 cents per dozen post-Easter like they have the past two years, "producers would be losing money again real quick-like." **EI**

### All layers and egg production: State breakout, in order of total egg production (1)

State	Average number of layers				Eggs per layer (3)				Total egg production			
	2004 1,000	2005 1,000	2006 1,000	06vs05 %	2004	2005	2006	06vs05 %	2004	2005	2006	06vs05 %
IA	43,569	48,760	51,557	106%	267	266	268	101%	11,615	12,978	13,811	106%
OH	27,938	28,026	28,374	101%	263	268	265	99%	7,355	7,506	7,507	100%
PA	23,893	23,785	23,758	100%	276	278	282	101%	6,585	6,608	6,687	101%
IN	23,532	23,596	24,555	104%	266	265	269	102%	6,256	6,254	6,593	105%
TX	18,403	17,972	18,769	104%	262	265	269	102%	4,825	4,760	5,039	106%
CA	20,222	19,336	19,313	100%	265	263	257	98%	5,352	5,082	4,962	98%
GA	20,323	19,737	19,469	99%	248	249	247	99%	5,038	4,906	4,811	98%
AR	15,385	14,748	14,214	96%	229	232	230	99%	3,526	3,416	3,267	96%
NE	11,766	11,987	11,718	98%	270	268	267	100%	3,174	3,217	3,129	97%
MN	10,859	11,040	11,079	100%	270	270	265	98%	2,927	2,985	2,940	98%
FL	11,316	10,963	10,985	100%	271	272	268	99%	3,068	2,980	2,938	99%
NC	10,877	10,955	11,028	101%	232	235	239	102%	2,523	2,573	2,636	102%
MI	7,493	7,867	8,578	109%	268	272	279	103%	2,009	2,142	2,391	112%
AL	9,345	9,141	8,816	96%	225	227	227	100%	2,099	2,071	2,002	97%
MO	7,043	7,204	7,207	100%	265	265	264	100%	1,865	1,910	1,903	100%
MS	6,923	7,001	6,499	93%	232	232	238	103%	1,606	1,627	1,546	95%

Continued on Page 4

# Egg Industry

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**All layers and egg production: State breakout, in order of total egg production (1)**

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	2004 1,000	2005 1,000	2006 1,000	06vs05 %	2004	2005	2006	06vs05 %	2004	2005	2006	06vs05 %
IL	4,004	4,434	4,817	109%	261	273	271	99%	1,044	1,210	1,307	108%
WA	4,932	4,931	4,835	98%	270	272	269	99%	1,332	1,343	1,298	97%
WI	4,534	4,864	4,699	97%	266	272	273	100%	1,206	1,321	1,284	97%
SC	5,243	5,042	5,010	99%	258	256	256	100%	1,351	1,289	1,280	99%
KY	4,982	4,781	4,547	95%	247	257	253	98%	1,232	1,228	1,150	94%
NY	4,021	3,951	3,943	100%	289	286	286	100%	1,163	1,129	1,126	100%
CO	3,963	3,814	3,765	99%	279	281	288	102%	1,105	1,071	1,083	101%
ME	4,147	4,138	4,026	97%	279	248	264	106%	1,156	1,025	1,064	104%
UT	3,182	3,285	3,457	105%	261	267	271	101%	831	878	937	107%
SD	3,442	3,092	3,247	105%	271	264	266	101%	933	816	865	106%
VA	3,241	3,326	3,291	99%	235	248	245	99%	761	823	806	98%
CT	2,853	3,026	2,818	93%	287	280	281	100%	818	846	791	93%
OR	2,964	2,916	2,710	93%	276	282	285	101%	818	823	772	94%
OK	3,412	3,210	3,170	99%	224	228	233	102%	764	731	738	101%
MD	3,121	2,918	2,707	93%	270	274	271	99%	843	798	733	92%
LA	1,944	1,892	1,844	97%	239	248	251	101%	465	469	463	99%
NJ	2,026	1,798	1,559	87%	276	273	286	105%	558	491	446	91%
TN	1,401	1,299	1,197	92%	228	243	241	99%	319	316	289	91%
WV	1,259	1,165	1,193	102%	217	224	230	103%	273	261	274	105%
ID	853	862	641	74%	279	280	284	101%	238	241	182	76%
MT	355	350	341	97%	302	303	305	101%	107	106	104	98%
HI	500	498	448	90%	237	230	219	95%	119	115	98	86%
MA	264	254	246	97%	284	280	289	99%	75	71	71	100%
VT	203	198	196	99%	271	253	281	111%	55	50	55	110%
NH	155	155	145	94%	271	252	249	99%	42	39	36	92%
WY	12	12	12	100%	300	300	300	100%	4	4	4	100%
Oth Sts (4)	6,061	5,466	5,433	99%	273	278	275	99%	1,657	1,519	1,493	98%
US (2)	341,956	343,792	346,078	101%	261	262	263	100%	89,091	90,027	90,877	101%

(1) Annual estimates cover the period Dec 1, previous year thru Nov 30. (2) Totals may not add due to rounding. (3) Total egg production divided by average number of layers on hand. (4) AK, AZ, DE, KS, ND, NM, NV, and RI combined to avoid disclosing individual operations. (Source: Chickens and Eggs Annual Summary reports, U.S. Department of Agriculture National Agricultural Statistics Service)

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## ➤ USDA Egg Outlook Brightens for 2007

USDA has decreased its production estimate for 2007 and increased its price projections. The department estimates an annual egg price average of 88 to 93 cents per dozen for Grade A large eggs, New York, for volume buyers, in its March World Agricultural Supply and Demand Estimates (WASDE). That's up from the 84- to 90-cent estimate in its February report. By quarter, the WASDE report estimates a \$1.03 to \$1.04 price in the first quarter; 85 to 89 cents in the second quarter; 79 to 85 cents in the third quarter; and 85 to 93 cents in the fourth quarter.

USDA predicts 2007 production of 7,600 million dozen, 10 million less than the February WASDE report. Exports are forecast at 226 million dozen, an increase of 12% over 2006, and up 35% from 2004, while imports are forecast at 7.2 million dozen, just slightly higher than 2006, but 5.5 million dozen lower than 2004.

On the feed side, average U.S. corn prices for 2007 were left unchanged at \$3 and \$3.40/bu., while soybean meal prices are projected at \$185 to \$200 per ton, up \$5 on both ends of the range from the February report. Soybean prices, meanwhile, are forecast at \$6.10 to \$6.50/bu., up 20 cents on the lower end of the range from the February report.

## ➤ Wolfgang Puck Moves to Cage-Free Eggs



**Wolfgang Puck**

that are used for his other menu options.

Famed restaurateur Wolfgang Puck has announced that he is now using only cage-free eggs, and is removing foie gras, crated veal and crated pork from menus, and implementing animal welfare measures. He's also adding vegetarian options throughout all his businesses. According to Farm Sanctuary, Puck has developed a comprehensive plan to reduce the suffering of the animals

that are used for his other menu options.

## ➤ Organization Formed to Build Trust in Food System

A new organization supported by the United Egg Producers, the American Egg Board, and other food and agricultural groups was formed last month to increase consumer trust and understanding of the contemporary food system. The Center for Food Integrity is a combination of The Grow America Project and Best Food Nation, two national initiatives established in 2006 to increase public understanding about the food system.

The organization's primary mission is to engage with stakeholders, model practices that build trust with consumers, and share accurate, balanced information about the U.S. food system, says Andy Miller, Indiana Agriculture Director.

"The Center for Food Integrity will be a resource where consumers and other stakeholders can find information about the food system and discuss important issues," Miller says. "We are providing leadership in building consumer trust and confidence in the contemporary U.S. food system."

The new entity has support from more than 20 organizations representing each segment of the food chain, including farmers and ranchers, processors, companies that deliver food products under local, regional and global brand names, and government.

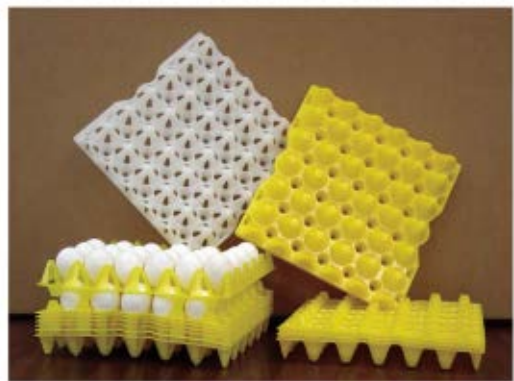
In the next few months, the center will coordinate teams to provide strategic leadership addressing five issues: health and nutrition; food safety; worker care; environment; and food animal well being.

Mike McCloskey, owner of Fair Oaks Dairy Farm, says that "we know that we need to continually enhance our production methods to make sure they are aligned with societal expectations. But most importantly, we want to establish a culture of trust and transparency that ensures the availability of safe, abundant, and affordable food."

## ➤ Jim Hunter, Rep for Moba, Dies

Jim Hunter, who had been with Moba B.V. for 20 years, and the egg industry for 30 years, died Feb. 28 after a fight against cancer. Memorials may be sent to the Lazuras House Hospice. Further details may be obtained from the family, 111 Ross Avenue, McMinnville, TN 37110. **EI**

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# Missouri Farmers Earn



*Rosiland and Alvin Layne have won environmental awards from both the U.S. Poultry & Egg Association, and Tyson Foods.*

# Environmental Award

By Edward Clark, Editor

**R**osiland and Alvin Layne are serious about trees. After first starting to plant trees on Conservation Reserve Program (CRP) acres four years ago, the Laynes have since planted close to 6,000 trees to improve the habitat on their Pineville, Mo. egg and cow-calf farm: four types of oaks, black walnut, river birch, garden plum, grey dogwood, smooth sumac, and bald cypress.

“On the egg side we’re trying to do the best job we can and on the conservation side, we enjoy seeing wildlife, and want to improve the quality of our habitat,” Rosiland says. Adds Alvin: “We want to leave our farm in better shape than we found it.”

The Layne’s are contract growers for Tyson Foods, producing hatchery eggs. For the past two years, they have won Tyson’s Noel Complex Environmental Stewardship Award and this year, after Tyson entered them in the U.S. Poul-

try & Egg Association environmental contest, the Laynes won the runner-up Family Farm Environmental Excellence Award.

The Laynes, who have been in the egg business for 20 years, have been making environmental improvements on their farm for a long time. In 1983, they began soil testing and later developed a nitrogen-based nutrient management plan, which now is phosphorus-based. The soil testing allows them to precisely apply manure from the poultry operation on 15 pasture fields; the rest of the manure is sold to neighbors for use on their fields. The Laynes soil tested and had a nutrient management plan developed for the neighbor’s property as well.

The Laynes also have been composting dead birds and bad eggs since 1994, which also are spread as fertilizer.

## Buffer on Stream

More recently, the Laynes have be-

gun using intensive grazing on their 15 sections of pasture for the cow-calf operation, and have put a buffer in place so the cattle no longer have direct contact with a stream that runs through the farm. They also have planted trees near the riparian waterway of Little Sugar Creek “for an extra buffer along the stream,” Alvin says, to control erosion and to reduce the chance that the stream would change directions—something the Laynes were concerned about.

“Everybody likes clean water and a clean environment and we want to do as much as we can to take care of it,” Alvin says. The Laynes grow no crops—other than grasses in the pastures—but Rosiland considers their trees “a long-term crop.”

## Community-Based Programs

What is impressive about the Laynes besides what they are doing on their



*The Laynes, who farm in Pineville, Mo., produce hatchery eggs under contract for Tyson Foods.*





**The Laynes have planted trees near the riparian waterway of Little Sugar Creek (left) “for an extra buffer along the stream,” Alvin Layne says, to control erosion and to reduce the chance that the stream would change directions—something the Laynes were concerned about. Some of the trees’ third growing season (right).**

own farm is how dedicated they are to community-based conservation programs, says Joseph Pease, environmental manager for Tyson Foods plant in Noel, Mo. The Laynes are officers of numerous local watershed and farm organizations, with Rosiland recently elected vice president of the Elk River Watershed Improvement Association. Pease also notes that the Laynes did very well in Tyson’s national environmental contest, after having won the local plant contest.

“They set a good example, and are willing to have tours on their farm



**Alvin Layne, mowing among some of the nearly 6,000 trees he and Rosiland have planted on their egg and cow-calf farm.**

to educate others,” says Lynn Jenkins, district conservationist with the National Resource Conservation Service in Neosho, Mo. On the poultry litter side, he credits the Laynes for following their nutrient management plan, “so litter and fertilizer are applied based on the needs of the plant and not over applied.” He also credits them for piping water into tanks in the middle of fields for cattle, so they are away from creeks and ponds. Another positive environmental change they have made, he says, is fencing off the stream and replacing it with a riparian corridor, which helps filter nutrients out.

“They want it (water) clean for the

next generation,” he says. “And both are very community and civic minded.” That takes a lot of effort, says Drew Holt, University of Missouri extension agent who has worked with the Laynes on environmental projects,

“because a good deal of patience is needed by everyone involved when diverse perspectives are brought together to find common ground and implement projects that everyone agrees with.” **EI**

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# AEB Votes Against Funding Egg Industry Center

*At its annual spring meeting in Rosemont, Ill., on March 22, the American Egg Board also voted to abandon the “Egg Man” advertising campaign.*



*The American Egg Board Executive Committee for 2007 was chosen at AEB's March 22 meeting. Back row (left to right): Bruce Dooyema, Greg Herbruck, Joanne Ivy (AEB staff Liaison). Front row (left to right): Paul Sauder, Jacques Klempf, Wayne Mooney, Brian Hayward. Not pictured: Beth Schnell, Angie Snyder.*

By Shelly Howell

The American Egg Board voted at its spring meeting against providing funding for the proposed Egg Industry Center at Iowa State University, approved a new advertising campaign, and expressed concern about the trend towards state legislation banning cages.

## Egg Industry Center

Representatives from Iowa State University gave a presentation on the proposed center, which would act as a liaison between the egg industry and land grant universities to conduct research.

“[The Egg Industry Center] will grow

the relationship between land grant universities and the egg industry to help the nation’s egg industry be profitable and competitive,” Iowa State’s Maynard Hogberg said during his presentation to the board.

The Midwest Poultry Consortium, the Iowa Egg Council, and 12 land grant universities have pledged to support the center, but AEB members expressed concern that it isn’t necessary because the research could be done under the umbrella of the Egg Nutrition Center. They also said they were worried that the center was too deeply rooted in Iowa and wouldn’t represent the egg industry elsewhere in the country.

The EIC was seeking \$1 million dollars (\$200,000 annually for five years). A hand vote was taken, with 10 board members voting against the measure and just four voting in favor of it.

## New Advertising

Following a presentation by the advertising committee and account representatives from New York City-based Grey Advertising, the American Egg Board voted to abandon the “Egg Man” advertising campaign and move forward with a new idea called “Cracked Eggs”.

The Egg Man concept had a superhero that informed consumers about the nutritional benefits of eggs. The advertising committee said the campaign was targeted to moms who make most of the decisions as to what their families eat. The committee said research showed moms didn’t like the superhero concept, thinking it was better suited for their children or their husbands. The research also indicated that after watching the commercial, the moms weren’t better informed about the nutritional benefits.

The Cracked Egg concept includes both print and television commercials featuring regular people who eat eggs as a regular part of their diet. The ads stress that eggs have the highest quality protein of any food and are all natural, not processed, and contain no additives.

Preliminary research on the Cracked Egg campaign showed people were 46 to 53 percent more likely to consume eggs after seeing the “Cracked Egg” ads.

The AEB approved using \$40,000 to





**New AEB board members. Back row (left to right): John Sperry, Timothy Bebee. Front row (left to right): Gregory Nelson, Ronald Gross, Loren Bosma. Not pictured: Brian Winner, Robert Gornichec, Richard Hall.**

continue developing and researching the Cracked Egg concept. The board also approved spending \$5.2 million dollars to secure television advertising for the 2007-2008 television season during the upfront purchasing period, which guarantees the best rates.

### **Animal Welfare/Environment**

The AEB also received an update from United Egg Producers senior vice president, Chad Gregory, on environmental and animal welfare issues.

Gregory said a long awaited air quality study is finally getting underway. AEB has provided \$2.8 million for the research. Gregory told members that Purdue University is currently using that money to buy trailers and other materials that will be needed for the project. He estimated the trailers will leave Purdue in three to four weeks. He said it would take a month or two to set up the research sites once the trailers arrived, putting it at about June 1 when actual data collection would begin. The study is set to run for two years and analysis of data will take about 18 months. That means the final results of the study should be ready at the end of 2010 or the beginning of 2011.

Gregory also expressed concern about the number of states looking at anti-cage legislation. He says right now six state legislatures are considering such measures and the Humane Society of the United States has promised to continue its efforts until legislation has been introduced in every single state.

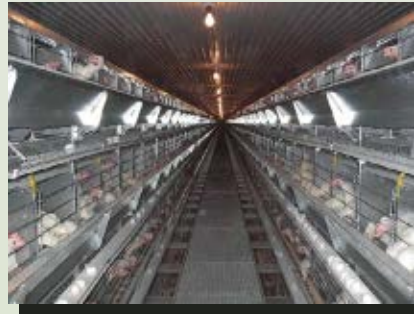
Gregory spent time in Connecticut where the fight is underway. He said UEP brought local producers, local residents, a state veterinarian and USDA representative to a hearing a few weeks ago to talk about the issue.

“The message was very clear: science, science, science,” Gregory said. “Consumers have a choice and there’s no reason to take that away for no scientific reason.”

Gregory also talked about the economic impact that cage-free laws could have. He says one of the biggest arguments the animal rights groups have used is that they don’t want

## **HELLMANN POULTRY EQUIPMENT**

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## | AEB Votes Against Funding Egg Industry Center |

producers to go out of business, they just want the animals to have a little more room. Gregory says one producer in Colorado called his supplier to find out how much it would cost to retrofit his cages so they would comply with the larger requirement and was told it would be \$22 a bird.

### Food Service

The AEB also received encouraging information about the demand for eggs in the food service industry. Breakfast is seen as the rising star and the driving force in most quick service restaurants, according to the Consumer Education and Food Service Committee report.

The committee says almost every fast food restaurant is looking to expand and/or add breakfast items to their menus.

AEB's consumer advisor, Elizabeth Alston, talked about the importance of not letting natural foods be taken out of the spotlight by "trendier" products that have nutrients, such as omega-3,

added to them.

She also talked about marketing eggs to single people who might be looking for a quick, nutritious and easy to prepare meal. She said while soufflés and frittatas look great on magazine pages, not many people are going to be able to prepare them at home. She said it might be more beneficial to provide recipes for hard boiled eggs or what she calls "rough and ready" dishes in which an entire meal can be made in just one pan.

Her advice was: "Keep it simple, keep it direct and make the eggs the hero every time."

### New Officers

The AEB's Executive Committee for 2007 is as follows: Wayne Mooney, chairman, Pilgrim's Pride Corp., Dallas, Texas; Jacques Klempf, vice chairman, Dixie Egg Co., Jacksonville, Fla.; Paul Sauder, secretary, R.W. Sauder, Inc., Lititz, Pa.; Brian Hayward, treasurer, Creighton Bros., LLC, Atwood,

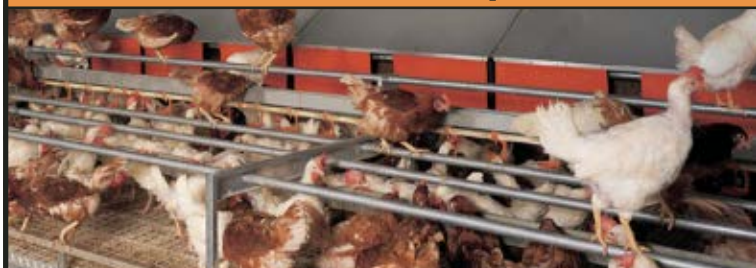
Ind.; Greg Herbruck, Herbruck Poultry Ranch, Saranac, Mich.; Bruce Dooyema, Dooyema & Sons, Inc., Sioux Center, Iowa; Beth Schnell, immediate past chairman, Sparboe Farms, Wayzata, Minn.; Angie Snyder, USDA consultant, San Antonio, Texas; and Joanne Ivy, AEB president, staff liaison.

New board members for the 2007 term are: Ronald "Tad" Gross, Hemmelgarn & Sons, Inc., Coldwater, Ohio; Timothy Bebee, Michael Foods Egg Products, Wakefield, Neb.; and Loren Bosma, Bosma Poultry, Sibley, Iowa. New alternate board members: Brian Winner, Ross-Medford Farms, New Weston, Ohio; John Sperry, Sperry Farms, Inc., Atlantic, Pa.; Robert "Bob" Gornichec, Ft. Recovery Equity, Ft. Recovery, Ohio; Richard "Rich" Hall, S.W. Iowa Egg Cooperative, Massena, Iowa; and Gregory Nelson, Nelson Poultry Farms, Inc., Manhattan, Kan. **EI**

*Shelly Howell is WATT's Online News Editor.*



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# Market Demand Growing for Specialty Eggs

By Edward Clark, Editor

An increasing number of consumers want locally grown, healthier food and that translates into more demand for organic and specialty eggs, according to John Marquardt, sales manager for Chino Valley Ranchers, Arcadia, Calif.

He stressed at the Midwest Poultry Federation Convention last month in St. Paul, Minn., that while the market is growing, it's crucial for producers thinking of getting into the specialty business "to know what their costs are."

For example, California organic corn now costs "\$7/bu-plus, and we're at a point where we're going to have a problem," Marquardt, whose company produces organic and specialty eggs for nationwide customers, said that organic egg producers "should have feed costs in the contract to protect yourself. Have a contract with flexibility."

Marquardt also said that producers who want their layers to produce eggs high in omega-3 need to be aware that one of the costs of feeding flax is lower production.

Illustrating the move to "locally grown," Marquardt says that one thing he is seeing is that retailers are starting to have different grades for eggs depending on whether the eggs are locally grown, as well as how the birds are raised.

On marketing, Marquardt said that "trade shows are great, and can be very profitable, but it costs about \$10,000 to go to a show. Select the one that's right for you."

A lot has changed in the past 10 years, he said. A decade ago, the cage-free equipment shown at the Midwest show would have been nonexistent.

## No Definition

Kevin Elfering, director of dairy and

food inspections for the Minnesota Department of Agriculture, said there are several problems associated with labeling. For example, he said that free range is not legally defined, and in fact, free-range birds that are outside could actually have less space than caged birds.

Elfering also said that some companies have been tempted to stretch their labels beyond what's accurate. "We have seen some companies put cage-free labels on eggs (from layers) raised in cages."

On omega-3 and lutein, he cautioned the industry to state the amount for the label to be beneficial, "so many milligrams." Some things Elfering does not like to see on labels: no artificial growth hormones, which eggs and poultry don't have anyway. "No added hormones is deceptive. And natural. What's an unnatural egg? Natural means minimally processed with nothing added. You can't have an unnatural egg if defined by federal law." Elfering advises companies to not embellish, and to substantiate their claims. "If you claim eggs are high in omega-3, have a lab analysis."

## Sustainability Versus Organic

Lenny Russo, chef and founder of Heartland Restaurant, St. Paul, Minn., who tries to buy local ingredients as much as possible, said, "we're look-

ing more at sustainability than organic." He noted that it's possible to grow organic food without rotating crops. "That's a big issue for us," he said. Russo added, however, that "quality has to be first or we won't buy it." He also said that he wants farmers to charge him what it takes for them to make a profit. "If the farmer is successful, I'm successful," he said. "I can pass some costs along and eat some as well."

While he said that on most food ingredients, he's looking for consistency on size, flavor, and texture, on eggs he's "willing to give up a little on consistency" for a cage-free product. Since eggs are used as ingredients, their size consistency is not as critical, he says.

Steve Kopperud, senior vice president, Policy Directions, Washington, D.C., said he does not take issue with organic and other specialty producers, but does have problems with producers of those products who imply that their products are better. That plays right into the hands of enemies of the industry, he said, such as the Humane Society of the United States, with a budget of \$120 million and "whose goal is to put everyone in this room out of business. There is room for all production practices," he said, but it hurts the entire industry "when we trash each other." **EI**

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## EMERGING EGG TECHNOLOGY

WITH DR. GLENN W. FRONING

# Egg Shell Coating Inhibits *Salmonella enteritidis*

It is well known that egg shell coatings such as mineral oil will improve egg quality during storage. Sealing the egg shell minimizes loss of carbon dioxide and moisture from the egg. A study by Kim *et al.*, 2007 (*Journal of Food Science* 72:S44-S49) utilized chitosan as shell sealant to maintain quality and possibly inhibit *Salmonella enteritidis* (SE). Chitosan is derived by the deacetylation of chitin, which is a major component of the shells of crab, shrimp, and crawfish.

Chitosan has been shown to have more bactericidal action against gram-positive bacteria than gram-negative bacteria (*Salmonella*). Also, chitosan has been observed to be a good sealant for preserving the quality of shell eggs.

### Four Chitosans with Different Weights

This research evaluated coating materials prepared from four chitosans with different molecular weights (282, 440, 746 and 1110 K Da) and one  $\beta$ -

chitosan. Their antibacterial activity against SE was measured as well as their effectiveness for preserving egg quality of coated eggs.

The coating solution of each of the chitosans was prepared in 1% acetic acid with 2% glycerol as a plasticizer. Chitosan coating was applied to the egg shell using a sponge brush and dried using a fan for 15 minutes. The researchers also had non-coated eggs and eggs coated with 1% acetic acid as controls. Eggs were stored up to four weeks at 25°C (room temperature of 77°F). Weight loss, Haugh units and yolk index were measured. Antibacterial activity against SE of the various chitosans was also determined.

All chitosans significantly inhibited growth of SE up to 9 log CFU/ml. However, the lower molecular weight chitosans were observed to provide stronger inhibition of SE. In fact, the chitosans at a molecular weight of 282 K Da completely inhibited SE. It was

concluded that the lower molecular weight chitosans penetrated the microbial cell membrane more easily.

The chitosan shell coatings reduced weight loss during the four week storage period. After two week storage, the lower molecular weight chitosans (282 and 440 K Da) maintained Haugh units at values indicating A quality eggs (Haugh units greater than 60) whereas controls were  $\beta$  quality. Chitosan coatings also improved yolk index values as compared to the control eggs. These egg quality results are quite similar to those achieved by previous studies using spray

oiling of shell eggs.

This research indicates that coating egg shells with chitosans (282 K Da) will be an effective inhibitor of SE. Since most *Salmonella* contamination occurs

through penetration of the shell, this research may have some practical significance. If application of the chitosan coating can be easily accomplished and the process is economical, this may be of value to the industry. **EI**

*Dr. Froning is Professor Emeritus, Department of Food Science and Technology, University of Nebraska, Lincoln, NE 68583-0919.*

► **All chitosans significantly inhibited growth of SE.**

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# Letter to the Editor: Price Quotes Are Favorable to the Midwest

I enjoyed reading much of the content in your article "Egg Executives Optimistic on 2007" (February 2007). However, what is very perplexing to me as an egg producer, good times or bad, is our current market reporting system. The industry has many problems including animal welfare, environmental, and feed costs. In my opinion, the biggest problem we have today, however, that will continue to haunt and cripple this industry is overproduction in the Midwest region as defined by our market reporter.

I have many Midwest producer allies whom I consider my friends and contemporaries; nevertheless the problem exists and in industry circles, is talked about all the time. I am by no means blaming our market reporter for decisions made by egg producers to make substantial investments in land, buildings, birds and people. Yet they continue to make the investments. One can only surmise that these decisions are made based on what they can sell their product for as they compete in the open market. The regional Urner Barry quotation has been a very favorable market for Midwest egg producers for some time.

Today's egg consumption is holding steady at or around 255-eggs per person.

If you look at the regions as defined by our market reporter, compare layer versus population and then throw in the consumption needed to stay balanced within a region... well, it is incredibly skewed. If we have a true regional quote, then the market should be representative of the region. Clearly, this is something we do not have today.

Moreover, the region that has the greatest supply has to be the lowest price, and the Midwest is lower than the other regions. It simply is not low enough to get their supply in balance with demand. This economic theory is prevalent no matter what commodity or consumer good is being produced or sold. Vidalia onions are cheaper in Vidalia, Ga., strawberries are cheaper in Plant City, Fla., and oranges are cheaper in Orlando, Fla. than in Des Moines, Iowa. The cost to get the various products to Des Moines will be reflected in the wholesale selling price to Des Moines distributors and growers guaranteed.

For some reason, unbeknownst to industry executives that I talk to, the aforementioned economic theory is only reflected within the egg market in California. The regional differences in California to the Midwest region average 14 to

17 cents per dozen on a regular basis, yet when compared to other regions of the country with the same distance, the differentials are 3 to 5 cents per dozen. The question begs why just in California and not other regions of the United States? If there is sound science and economic reasons then they must be explained to the rest of the egg producers. If it has simply been wrong, then it needs to be corrected immediately. Trust me on this; I want the Midwest market to be as high as it can go all the time, because I know at the end of the day our region will be higher. I am also in favor of California being a higher region, but do not understand why it does not apply to the other regions.

However, if the market truly reflected the supply/demand imbalance in the Midwest, then the egg entrepreneurs would cut back on production, curtail expansion, and at some point the continued investment in production facilities that plagues our industry within that region today.

(I've included a spreadsheet for your review to truly see the dilemma we have in our industry.)

*Jacques Klempf, President, Dixie Egg Company, Jacksonville, Fla.*

■

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## Layer Numbers, Population, and Consumption by State

Regions	Layers	Population	Difference	Layers or Population	Layers per Person by State	Annual Egg Consumption needed per person to stay balanced (based on hens @ 260 eggs per year)
<b>Midwest</b>						
IN	22,814,000	6,195,643	16,618,357	Layers	3.682	957.389
IL	4,226,000	12,653,544	8,427,544	Population	0.334	86.834
IA	49,082,000	2,944,062	46,137,938	Layers	16.672	4334.596
MI	7,264,000	10,079,985	2,815,985	Population	0.721	187.365
MN	10,488,000	5,059,375	5,428,625	Layers	2.073	538.976
NE	12,018,000	1,739,291	10,278,709	Layers	6.910	1796.525
OH	27,641,000	11,435,798	16,205,202	Layers	2.417	628.435
SD	3,027,000	764,309	2,262,691	Layers	3.960	1029.714
WI	4,537,000	5,472,299	935,299	Population	0.829	215.562
<b>Total</b>	<b>141,097,000</b>	<b>56,344,306</b>	<b>84,752,694</b>	<b>Layers</b>	<b>2.504</b>	<b>651.090</b>
<b>Northeast</b>						
CT	2,936,000	3,483,372	547,372	Population	0.843	219.144
ME	2,675,000	1,305,728	1,369,272	Layers	2.049	532.653
MD	2,981,000	5,508,909	2,527,909	Population	0.541	140.692
NY	3,852,000	19,190,115	15,338,115	Population	0.201	52.189
PA	22,713,000	12,365,455	10,347,545	Layers	1.837	477.571
<b>Total</b>	<b>35,157,000</b>	<b>41,853,579</b>	<b>6,696,579</b>	<b>Population</b>	<b>0.840</b>	<b>218.400</b>
<b>Southeast</b>						
AL	1,868,000	4,500,752	2,632,752	Population	0.415	107.911
FL	9,960,000	17,019,068	7,059,068	Population	0.585	152.159
GA	11,534,000	8,684,715	2,849,285	Layers	1.328	345.301
MS	1,611,000	2,881,281	1,270,281	Population	0.559	145.373
NC	3,339,000	8,407,248	5,068,248	Population	0.397	103.261
SC	4,041,000	4,147,152	106,152	Population	0.974	253.345
VA	1,200,000	7,386,330	6,186,330	Population	0.162	42.240
<b>Total</b>	<b>33,553,000</b>	<b>53,026,546</b>	<b>19,473,546</b>	<b>Population</b>	<b>0.633</b>	<b>164.517</b>
<b>Northwest</b>						
OR	2,677,000	3,559,596	882,596	Population	0.752	195.533
WA	4,928,000	6,131,445	1,203,445	Population	0.804	208.969
<b>Total</b>	<b>7,605,000</b>	<b>9,691,041</b>	<b>2,086,041</b>	<b>Population</b>	<b>0.785</b>	<b>204.034</b>
<b>South Central</b>						
AR	4,418,000	2,725,714	1,692,286	Layers	1.621	421.424
CO	3,278,000	4,550,688	1,272,688	Population	0.720	187.286
MO	6,124,000	5,704,484	419,516	Layers	1.074	279.121
OK	1,836,000	3,511,532	1,675,532	Population	0.523	135.941
TX	13,626,000	22,118,509	8,492,509	Population	0.616	160.172
<b>Total</b>	<b>29,282,000</b>	<b>38,610,927</b>	<b>9,328,927</b>	<b>Population</b>	<b>0.758</b>	<b>197.180</b>
<b>Stand Alone</b>						
CA	20,048,000	35,484,453	15,436,453	Population	0.565	146.895
HI	464,000	1,257,608	793,608	Population	0.369	95.928
<b>Total</b>	<b>20,512,000</b>	<b>36,742,061</b>	<b>16,230,061</b>	<b>Population</b>	<b>0.558</b>	<b>145.150</b>
<b>Other States</b>	<b>16,262,000</b>					

USDA February 2005 Layer numbers; 2003 US Census Population numbers. (Created by Donna Bennett)



# ➤ INDUSTRY CALENDAR

## May

### 14-16: United Egg Producers (UEP) Legislative Board Meeting

Washington, D.C. Contact: United Egg Producers Headquarters, 1720 Windward Concourse, Suite 230, Alpharetta, Georgia 30005. Tel: 770-360-9220. Fax: 770-360-7058. E-mail: info@unitedegg.org. Website: www.unitedegg.org.

### 20-23: Alltech's 23rd International Feed Industry Symposium

Lexington, KY. Contact: Paulo Rezende, Events Manager, Alltech, 3031 Catnip Hill Pike, Nicholasville, Kentucky 40356. Tel: 859-887-3328. Fax: 859-881-2237. E-mail: symposium@alltech.com. Website: www.alltech.com/symposium.

### 21-24: National Egg Quality School

Radisson Penn Harris Hotel & Convention Center, Camp Hill, Pennsylvania. Contact: Deanna Baldwin, Assistant Director. Tel: 410-841-5769. E-mail: baldwidl@mda.state.md.us. Website: www.neqs.org.

### 22-24: Multi-State Poultry Feeding & Nutrition & Health Management Conference/NOVUS International Inc. Technical Symposium

Indianapolis Marriott East, Indianapolis, Indiana. Contact: Purdue University, Tom Robertson. Tel: 765-494-7220 or 800-359-2968, ext. 92R.

## June

### 6-8: National Safety Conference For The Poultry Industry

Savannah Marriott Riverfront Hotel, Savannah, Georgia. Contact: Kristi Spivey, Food Processing Technology Division, Georgia Tech Research Institute. Tel: 404-894-3412. E-mail: kristi.spivey@gtri.gatech.edu.

### 20-22: NC/VA Egg Industry Conference and Mid-Atlantic Layer Management Workshop

St. Simons Island, Georgia. Contact: Kenneth Anderson. Tel: 919.515.5527. E-mail: ken\_anderson@ncsu.edu.

## July

### 8-12: PSA • ADSA • AMPA • ASAS Joint Annual Meeting

San Antonio, Texas. Contact: Poultry Science Association, 1111 North Dunlap Avenue, Savoy, Illinois 61874. Tel: 217-356-5285. Fax: 217-398-4119. Website: www.poultryscience.org or www.adsa.org.

## October

### 3-4: National Chicken Council Annual Conference

JW Marriott Hotel, Washington, D.C. Contact: National Chicken Council, 1015 15th Street, NW, Ste. 930, Washington, D.C. 20005-2622. Tel: 202-296-2622. Fax: 202-293-4005. E-mail: ncc@chickensusa.org. Website: www.nationalchickencouncil.org.

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## 2008

### January

#### 23-25: International Poultry Exposition 2008

Georgia World Congress Center, Atlanta, Georgia. Contact: US Poultry & Egg Association, 1530 Cooleedge Road, Tucker, Georgia 30084-7804. Tel: 770-493-9401. Fax: 770-493-9257. E-mail: expogeneralinfo@poultryegg.org. Website: www.poultryegg.com.

### March

#### 18-20: Midwest Poultry Federation Convention 2008

St. Paul, Minnesota. Contact: Midwest Poultry Federation, 108 Marty Drive, Buffalo, Minnesota 55313. Tel: 763-682-2171. Fax: 763-682-5546. E-mail: lara@midwestpoultry.com. Website: www.midwestpoultry.com.

## 2009

### January

#### 28-30: International Poultry Exposition 2009

Georgia World Congress Center, Atlanta, Georgia. Contact: US Poultry & Egg Association, 1530 Cooleedge Road, Tucker, Georgia 30084-7804. Tel: 770-493-9401. Fax: 770-493-9257. E-mail: expogeneralinfo@poultryegg.org. Website: www.poultryegg.com.

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