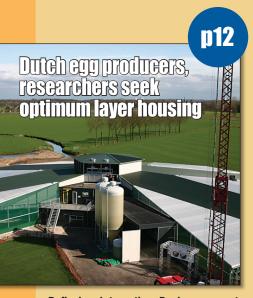
News for the Egg Industry Worldwide



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Reflexive Interactive Design concepts have been used in the Netherlands to create alternative hen housing systems like the Rondeel shown here.

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With hen welfare legislation pending in Congress, individual egg producers may want to evaluate the suitability of existing housing for use with enriched colony systems. Photo courtesy of Northeast Agri Systems

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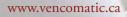


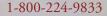


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EDITORIAL BY TERRENCE O'KEEFE

Will enriched colonies satisfy US consumers?

r. Ferry Leenstra described the reflexive interactive design process to the audience at the Executive Conference on the Future of the American Egg Industry and how it has been used to come up with some unique housing alternatives for laying hens in the Netherlands. Both the Rondeel and the Plantation systems looked interesting and reportedly have addressed the concerns of both activists and consumers (see *Dutch egg producers, researchers are seeking optimum layer housing* in this issue). But neither sys-



tem houses very many hens.

According to Leenstra, a Rondeel and a Plantation house 30,000 and 6,000 hens, respectively. Just imagine how many of each of these systems a farm would need in order to have an efficient egg washing,

Terrence O'Keefe

grading and packing facility. I could see these systems used to produce eggs for niche markets like organic production in the U.S., but not for the mainstream consumer table egg market in this country.

Enriched colony housing is scaleable, and these systems can be retrofitted into most existing houses in the U.S. Farms will necessarily have more square footage under roof to accommodate the current number of hens, but economies of scale in collecting, washing, grading and packaging of eggs would be maintained.

The idea for enriched colony housing origi-

nated in Europe, but this type of housing has not won over activists and consumers in all EU countries. Germany, Switzerland and the Netherlands have each enacted legislation to ban enriched colony "cages" for hens. These countries will move forward with cage-free production systems as the only choice for producers. Other northern EU countries, like England, have also seen a dramatic shift to cage-free production brought on by demands from retailers.

Preventing a forced move

As more U.S. egg producers adopt enriched colony housing it will be necessary for each producer to work to educate the public about the benefits of this type of housing for hens. Efforts like the in-house cameras at JS West, which is viewable via the Internet, need to be replicated at all farms with enriched colony housing. If the U.S. industry does not want to be forced into a completely cage-free future, then all houses need to provide an environment for hens that we are happy to have consumers view at any time.

The U.S. egg industry can still be forced into cage-free production if it does not successfully demonstrate the advantages of enriched colony housing for hens to consumers and other interested parties. Even if H.R. 3798 gets passed by both houses of Congress, the battle isn't over. Preventing a forced move to all cage-free production will require the entire industry to make sure that they are ready for visitors every day. Processing plants must be ready for an audit every day, there is no reason that a modern laying farm can't be operated the same way.

> Terrence tokeefe@WATTnet.net

EggIndustry

www.WATTAgNet.com CORPORATE HEADQUARTERS



303 N. Main St., Ste. 500 Rockford, Illinois 61101-1018 USA Tel: +1 815 966 5400; Fax: +1 815 968 0941

V.P./Publisher:

Steve Akins, sakins@wattnet.net Tel: +1 919 387 7961; Fax: +1 815 968 0941 V.P./Director of Content: Bruce Plantz, bplantz@wattnet.net

EDITOR

Editor: Terrence O'Keefe tokeefe@WATTnet.net Tel: +1 704-795-4646 Managing Editor: Andrea Saladino

COPY DESK TEAM

Managing Content Editor: Tara Leitner

Associate Editors: Lindsay Beaton, Alyssa Conway, Kayla Kling

Community Manager/ SEO Editor: Kathleen McLaughlin

ART/PRODUCTION TEAM

Senior Art Director: Tess Stukenberg Production Director: Bill Spranger bspranger@wattnet.net Tel: +1 815 966 5428

Advertising Production

Coordinator: Connie Miller

SALES TEAM

USA/Canada Pam Ballard, pballard@wattnet.net Tel: +1 815 966 5576; Fax: +1 815 968 0941 Mary Harris, mharrris@wattnet.net Tel: +1 847 387 3167; Fax: +1 847 908 7551 Ginny Stadel, gstadel@wattnet.net Tel: +1 815 966 5591; Fax: +1 815 968 0941

International

Frans Willem van Beeman, beemenfw@xs4all.nl Tel: +31 344 653 442

Fax: +31 344 653 261

Michael van den Dries,

driesmvd@xs4all.nl Tel: +31 79 323 0782 Fax: +31 79 323 0783

Tineke van Spanje, tvanspanje@wattnet.net Tel: +31 495 526 155; Fax: +31 495 525 126

Southeast Asia

Dingding Li, dingdingli@vip.163.com Tel: +86 21 541 36853, Fax: +86 21 541 33676

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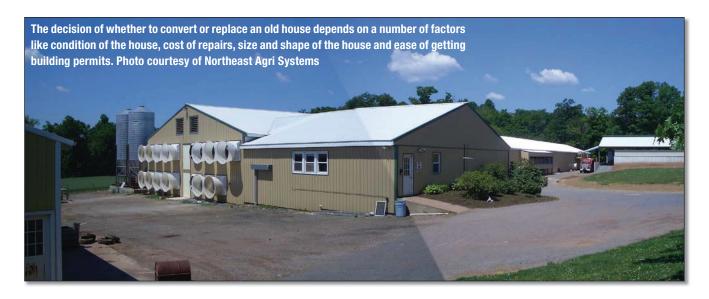
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Layer house conversion: convert the high-rise house or build new?

With hen welfare legislation pending in Congress, individual egg producers may want to evaluate the suitability of existing housing for use with enriched colony systems.

By Terrence O'Keefe



diamond may last forever, but chicken houses and cage systems don't. The hen welfare legislation, currently supported in Congress by the United Egg Producers and the Humane Society of the United States, calls for a multi-year transition from traditional cages to enriched colony housing in the U.S. If the legislation is enacted, egg producers will gradually retire existing cages and replace them with enriched or enrichable enclosures. Producers will have to decide whether to place these new enclosures in existing buildings or construct new ones.

Converting a high-rise house

Other things being equal, it is easier to maintain low ammonia levels in the air and control pests in houses with manure belt systems than in high-rise or deeppit houses. These advantages have led designers of enriched colonies to make manure belts part of all of their systems. Most high-rise houses have a post and beam system to hold the cages and catwalks up over the pit. The posts and beams have to be removed in order to put in the enriched colony system, which is supported by the floor of the house. In addition to supporting the old cages and catwalks over the pit, the posts and beams added rigidity to the structure. According to builders contacted for this article, in a typical high-rise house, some kind bracing or structural support will need to be added before the posts and beams are removed.

Is your house the right shape?

Enriched colony enclosures are a little bit taller than a conventional cage because they have to provide room for roosts and for the hens to flap their wings. Placing manure belts under each enclosure also increases the amount of height in the building that each level of an enriched system requires when compared to cages in a high-rise house. The actual size and shape of enriched colonies will vary by manufacturer, so you need to know the specific dimensions of each system before you can figure out how many enclosures will fit in your existing house from a height and width standpoint. Since manure storage will not be under the cages in an enriched colony house, the "pit" area of a high-rise house is available for enriched colonies.

Many high-rise houses are 600 feet long or longer. Manure belt systems are engineered for lengths of up to approximately 550 feet. The ventilation systems are designed to dry the manure prior to removal from the house by the belt. According to the system designers, extending the belts longer would put too much manure weight on the belt, and running the belts more frequently would not allow enough time to

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dry the manure. Because of the length restrictions of the manure belts, houses built for enriched colony systems will likely be somewhat wider than houses designed for conventional cages.

Some producers who decide to convert houses over 550 feet long to enriched colony housing may opt to use one end of the house for manure or equipment storage.

Calculating the cost

If you have determined that an enriched colony system will fit in your existing building in a manner that you are comfortable with, you need to consider all of the costs of retrofitting the building itself. Builders say that the first thing to consider is if the building will stand up by itself with the cages, posts and beams removed. If not, you need pit house where the floor did not have to be level before.

The building material covering the interior walls of the building should be removed to expose the insulation and wall studs. Builders say that the amount of damage that rodents have caused can be significant. Damaged studs will need to be replaced, and the walls and ceiling of the building will need to be re-insulated. Then, new interior wall coverings will have to be installed.

The condition of the trusses and the entire roof system needs to be evaluated when considering house conversion. The trusses should be inspected to make sure they have proper bracing. The truss plates should be checked to make sure they haven't become loose. Builders say that if this was a high-rise house, then the old access doors for the pit will need to be sealed off and insulated. You should consider upgrading to tunnel ventilation if your old house didn't have it.

Other options

One builder said, "In many cases, the old house just needs to go." Another builder said, "Sometimes there is not that much difference in remodeling versus building new, especially if the remodeled house can only hold six tiers and the new house can hold nine or 10 tiers of cages, or if so many repairs are required that the conversion expense is very near the cost of a new building." Building new allows for the structure to be designed to fit the specific needs of the enriched colony systems and



Enriched colony systems all utilize manure belts that limit the length of these systems to approximately 550 feet. Photo courtesy of Northeast Agri Systems



It is advisable to upgrade to tunnel ventilation when a house is converted to enriched colony enclosures. Photo courtesy of Northeast Agri Systems

to get a price for what upgrades are needed in the structure to make it free-standing. The builders add that particular attention should be paid to any posts or poles that are in contact with the ground.

Enriched colony systems are supported by legs that rest on the floor of the building. The system will be up to 550 feet long, and it needs to be level. Builders say that you will probably need to pour a new concrete floor in order to provide a level base for the system, particularly in a deepthere is evidence of deterioration, an engineer should be hired to design the repair. The roof should be checked for leaks, and if there are or have been leaks, then roof purlins should be checked. Roofing metal should also be checked to see if it needs to be replaced.

The ventilation system for the house will need to be redesigned. If the enriched colony system doesn't run the entire length of the house, then this will have an impact on the design of the ventilation system. If can allow for optimum utilization of space under roof.

Another builder did say that the relative ease of getting permits for a remodel versus permits for building new can sometimes favor remodeling. Given the fact that no two houses are exactly alike and that local permitting processes can have an impact, the decision of whether or not to convert an old house or build new may come down to the preference of the producer as much as to dollars and cents. MANAGING YOUR FEED DISTRIBUTION WITH FLEXIBILITY

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Sustainability programs can deliver value for poultry companies

Representatives from poultry and egg producers say that sustainability and corporate social responsibility programs have delivered tangible business benefits.

By Terrence O'Keefe

which makes you more attractive to customers," said Don Adams, vice president, sustainability, Keystone Foods. "In the future, it may be necessary to have a good CSR program to have a seat at the table [with customers]." Adams told the audience at the 2012 Animal Ag Sustainability Summit, which was held prior to the International Poultry Expo in Atlanta in January, that sustainability is a component of Keystone's KeyStar corporate



Don Adams, vice president, sustainability, Keystone Foods, said "In the future, it may be necessary to have a good [corporate social responsibility] program to have a seat at the table."

Table 1. Keystone Eufala feed mill sustainability project			
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Total \$517,250.00			

Keystone's investment in a boiler heat stack economizer and moisture control system for its Eufala, Ala., poultry feed mill had a return on investment of around five months.

social responsibility program.

Paul Helgeson, sustainability manager, GNP Company, said, "We believe that through resource efficiency and effective stakeholder engagement, sustainability can create a long-term competitive advantage."

Some poultry companies have begun sustainability programs because of requests or requirements from large international customers like Walmart and McDonald's. Sustainability can be defined in a number of different ways. Alan Andrews, director of marketing, Cal-Maine Foods Inc., said that at its core, "sustainability is the capacity to endure through a culture focused on the long-term wellbeing of our employees, laying hens, customers, suppliers, the environment and the communities where we live and work. Not sustaining the wellbeing of any one of these has the potential to significantly impact Cal-Maine's long-term success and or existence."

Sustainable means survival

Andrews presented examples of companies that have not had a sustainable business model and failed, such as personal computer pioneers Compaq and Osborne, Harvard Graphics, Northwest Airlines and others. Some of these companies had well known brands and were innovators in emerging industries, but could not survive despite their initial success. He said that Cal-Maine's mission statement for the sustainability program, "To be the most sustainable producer and reliable supplier of consistent high quality fresh egg and egg products in the country, demonstrating a culture of sustainability in every thing we do," captures the significance of the program to the company's future.

Sustainability is more than just environmental programs, according to Andrews. Worker health and safety programs were cited as an important part of sustainability because the company can't survive without its people. Adams said that previous success with employee involvement in safety programs at each location was used Dr. Ken Opengart, vice president, live operations, Keystone Foods, reported that all of Keystone's U.S. poultry

Read more Keystone Foods keeps small environmental footprint, at

www.WATTAgNet.com/26017.html

as a model for rolling out the KeyStar corporate social responsibility program at Keystone Foods. Adams said that the lessons learned from the success of safety programs at Keystone were that individual locations must take ownership of the program, demand continuous improvement without dictating goals, recognize accomplishments and communicate results globally.

Taking action

This approach has yielded strong results for Keystone's safety programs. operations have accident incident rates below the industry average and five out of the seven are less than half the industry average rate.

Andrews stated that Cal-Maine assumes

that 100 percent of all workplace accidents are preventable and works to instill this in all employees. He said that employees respond to what they see more than to what they hear, so it is important to lead by example. "Sus-

taining a safe work environment is our highest priority, and that

must be obvious to everyone," he said. "Everyone needs to be safe and healthy both on and off the job." To help keep employees safe, even when not on the job, Cal-Maine encourages employees and their families to do things like drive defensively and take safety courses focusing on their hobbies like hunting or boating. The company also supports health and wellness management for employees and their families.

Andrews said that three quarters of health care costs are related to preventable diseases like diabetes, heart disease and stroke. According to healthcare experts, 80 percent of heart disease, stroke and diabetes and 40 percent of cancers can be eliminated through proper diet, increased physical activity and smoking cessation. Focus-

Sustainability is more than just environmental programs.

> ing employees on taking action to improve their long-term health is part of sustainability for Cal-Maine.

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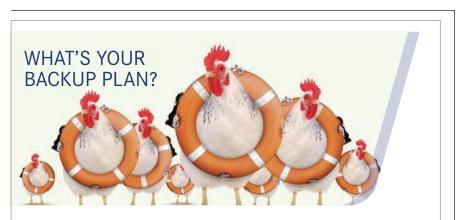
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Opengart provided some examples of Keystone's successful environmental projects. Methane captured from a covered anaerobic wastewater treatment lagoon at the company's Albany, Ky., plant was being flared off. Now a dedicated boiler system burns the biogas to heat water used in the processing plant. In 2011, 41,038 million standard cubic feet of gas were captured and



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burned which replaced the equivalent of 341,500 gallons of liquid propane. The first year savings were \$572,661 and the project had a return on investment of less than 10 months.

Another successful project was the installation of a boiler heat stack economizer and moisture control system at the company's Eufaula, Ala., feed mill. Waste heat from the boiler exhaust system is used to preheat water that becomes boiler make-up water and water used in the conditioner for the pellet mill. This system reduces total energy usage, improves pellet quality and bird



Dr. Ken Opengart, vice president, live operations, Keystone Foods, said that the first-year payback for a system that burns methane from the anaerobic lagoon at Keystone's Albany, Ky., plant was over \$500,000.

feed conversion. The projected annual savings for the project are over half a million dollars and the payback is around five months (See Table 1).

Opengart said that the Eufaula feed mill sustainability project was a good example of how you need to look at all aspects of a project's impact to figure out the costs and benefits. The savings in feed conversion resulted from the improved pellet quality and these savings need to be factored in to reveal the total value of the project.

Bird welfare part of sustainability

Opengart said that animal welfare is part of the KeyStar program. In the Camilla, Ga., complex, Keystone inspects birds for damage prior to the picker by flock and reports these results back to the catch crews. Daily feedback gives the crews a report card on how the flocks that they caught looked at the plant. In 2009, the company started an incentive program for the catch-crew personnel focused on reducing wing damage. Since 2008, this complex has experienced a 29 percent reduction in the amount of pre-picker wing damage, which is estimated to be worth \$175,000 over the course of a year.

What type of poultry company has a sustainability program?

Keystone Foods is a diversified protein company with operations in 13 countries that specializes in supplying food service accounts. The company services more than 30,000 restaurants worldwide with sales of \$6.4 billion in 2010. In October of 2010, Keystone was purchased by the Brazil-based Marfrig Group family of companies. Keystone ranked 11 in the 2011 WATT PoultryUSA Top Broiler Company Survey.

GNP, formerly known as Gold'n Plump, is a fully integrated broiler company in Minnesota and Wisconsin. GNP ranked 23 in the 2011 WATT PoultryUSA Top Broiler Company Survey. Most of the company's sales are in the Midwest, 78 percent, and over half of the company's products are sold through retail outlets.

Cal-Maine Foods ranked number one in the 2012 Egg Industry Top Egg Company survey and it is the world's largest egg producer. The company is publicly traded and anticipates sales of around \$1 billion in 2012. Over 820 million dozen eggs are produced per year and are sold primarily in 29 states across the Southern and Southeastern U.S.

Make sustainability part of your culture

In order for sustainability program to be effective it has to become part of the company's corporate culture, just as an effective safety program does. An effective sustainability program is not just what a company does so that it can bid on business with customers who have required it from suppliers. Sustainability programs don't have to be a net cost for poultry companies.

When commenting on the value of a sustainability or corporate social responsibility program, Adams explained, "Our CEO once said, 'It is the right thing to do and it makes good business sense.' It does deliver value."



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Dutch egg producers, researchers seek optimum layer housing

Activists, retailers, producers and researchers are engaged in an interactive process to design housing systems for layers that will meet the needs of all parties.

By Terrence O'Keefe

gg producers in the Netherlands are trying to cope with a marketplace and legislative environment that have demanded changes to how hens are raised, stated Dr. Ferry Leenstra, Wageningen University, the Netherlands. Speaking to the audience at the Forum on the Future of the American Egg Industry, she said that Dutch egg producers first had to adapt to a voluntary retailer ban on cage-produced eggs in 2004, eight years before the EU cage ban went into effect.

Then, in 2009, legislation

was enacted in the Netherlands which mandated that eggs would no longer be produced in enriched cages by 2021.

The Netherlands is a very small country in terms of square miles, but it is one of the largest agricultural exporters in the

Reflexive interactive design concepts have been used in the Netherlands to create alternative hen housing systems like the Rondeel shown here.

animals in Holland has come a number of concerns regarding environmental issues and animal welfare. One example of the impact of environmental concerns on egg producers are the costs associated with disposal of layer manure. Leenstra said that

about one third of the manure is exported, one third gets processed into horticultural products for

world. Holland has around seven times as many people per square mile as the United States. It also has lots of poultry and livestock, with ten times the poultry density, nine times the cattle density, and over 40 times the swine density of the U.S. Along with the high concentration of humans and export and one third is burned to generate electricity. She said that there is a net cost to the egg producer for all three manure disposal options.

In Holland, a move away from conventional cages into enriched cages did not satisfy activists groups. Egg producers are left with the task of trying to please a number of parties with conflicting agendas and still trying to make money producing eggs.

Reflexive interactive design

Leenstra stated that a lot of housing research is aimed at repairing problems with the housing system that is dominant at the time, but that in the Netherlands they are trying to think outside the box to find the best way to house layers.

"We are trying a new kind of integration of science and social sciences to get a more holistic and interactive approach which we call reflexive interactive design, or RIO," Leenstra said. Reflexive interactive design is a fusion of hard science and social sciences which take into account societal issues. "What is important is complete interaction between all stakeholders, and that we use the methodology of structured design coming from industrial design. It is to synthesize the needs of all involved that gives you new insights, so that you can overcome structural causes of sustainability issues."

Leenstra explained the need to overcome "wicked links" in housing systems, such as the increased disease risk associated with free-range systems or the increased greenhouse gas potential for non-cage housing when compared to conventional cages.

The process that Leenstra described

Read more about the Rondeel system: www.WATTAgNet.com/16034.html

for non-cage housing when compared to conventional cages.

The process that Leenstra described sounded almost like doing focus groups with stakeholders to determine the real hot-button issues, and then design a system to accommodate these. Some of the requirements that have been established with reflexive interactive design are a minimum of 341 square inches (2,200 square centimeters) per bird. There have to be separate areas provided for different activities such as a nesting area for per bird (6.5 hens per square meter) of interior space. There are just a couple of farms with Rondeels, but Leenstra reported that mortality has been very low and production is up to standard for the Lohmann Brown Lite breed being used. She said that there is no need to beak trim hens in these systems.

The other reflexive interactive designinspired system that Leenstra reported on is a Plantation system being used on one organic farm. She said that a lot of natural light is used in the enclosed part

Egg producers are left with the task of trying to please a number of parties with conflicting agendas and still trying to make money producing eggs.

laying, a foraging area, and a roosting area. Because of consumer desires, outdoor access must be provided, but they have to be able to control disease risk.

Because these requirements differ so much from what has been provided in traditional housing systems, Leenstra said that it is necessary to start from scratch designing a new system. She said that all of the current housing systems being used by the industry have some sustainability or bird welfare issues. The idea of reflexive interactive design is to determine all of the issues and requirements for the birds, activists and the environment and to design systems that take care of all of these concerns.

Reflexive interactive design alternatives

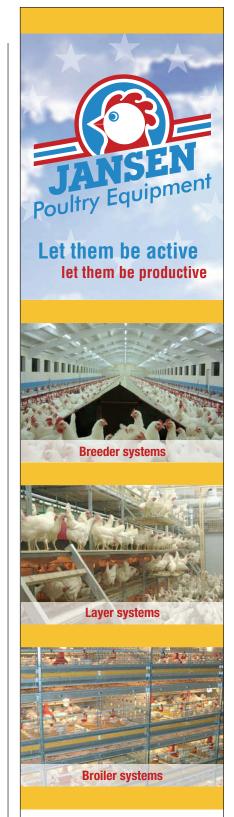
Leenstra presented two layer housing systems that have been developed and implemented in the Netherlands using the reflexive interactive design concept. One system is the Rondeel, which is marketed by a subsidiary of Vencomatic. Each Rondeel houses 30,000 birds with nesting and roosting areas in the center. Birds can leave the central indoor section of the Rondeel and go out into an outdoor covered area that has artificial grass followed by an outer ring with dirt and wood chips. There is a lot of natural light in the indoor area. Hens are placed at 238 square inches of the system, and that a lot of differentiation exists between the separate areas of the housing system. Each Plantation is designed to house 6,000 hens.

Access to the retail market

Retailers agreed eight years ago to stop selling eggs from cage-house hens. This control of access to consumers protects cage-free producers from lower cost competition from cage-housed hens. Leenstra made the argument that since demand for eggs is famously price inelastic, egg consumption would not drop much as prices have risen to cover the higher production costs of cage-free production.

Leenstra said that in the Netherlands egg producers need to think more about total profit rather than cost per egg. Some of the alternative housing systems will have significantly higher cost per egg, but because of the potential benefits of branding and access to retail markets these systems could yield higher profits.

From a marketing standpoint, she said that these housing systems can be more than just functional for the hens; they can be interesting and even "sexy" for consumers, helping to stimulate interest and demand for eggs produced from them. Leenstra said that different housing designs may appeal more or less to different sub groups of consumers and have greater branding potential.



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>INDUSTRYNEWS

Research challenges existing data on egg consumption

Eggs are experiencing a "rebirth" among many health and nutrition ex-



perts due to recent research challenging existing dogmas about nutrition and health, stated Dr. Mitch Kanter, executive director of the Egg Nutrition Center, in a presentation during the Simmering

Issues Workshop at the 2012 Midwest Poultry Federation Convention in St. Paul, Minn. Previously considered unhealthy, eggs are now being extolled for their nutrient density, high-quality protein, and relatively low cost in comparison to other protein sources.

Much of this rebirth is driven by data indicating egg intake does not promote cardiovascular disease in the majority of the population, according to Kanter. Recent studies are indicating the positive impact of a higher protein diet for modulating serum glucose and insulin levels, both of which can ultimately impact obesity rates and cardiovascular disease risk.

Further driving this resurgence are studies suggesting that breakfast might be the most important meal of the day for consuming protein.

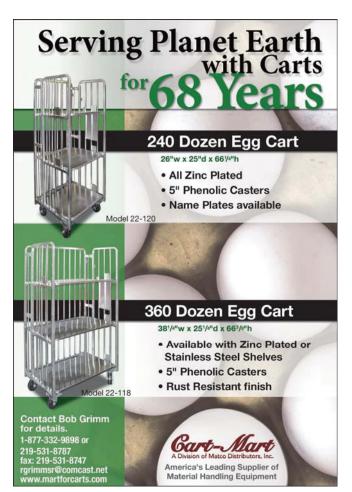
For more insight from the 2012 convention, watch this video editor Terrence O'Keefe: from www.wattagnet.com/149518.html and another video with Chad Gregory from the United Egg Producers: www.wattagnet.com/149538.html

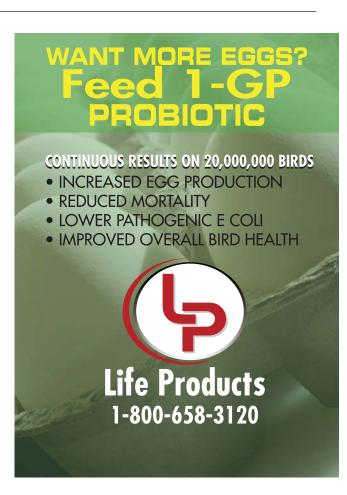
Novogen highlights successes, outlook

Novogen, part of Groupe Grimaud, held a press conference mid-March at the Vivalis facilities in Nantes, France, where it traced the company's development and offered perspectives for production.

Frederic Grimaud, Groupe Grimaud president and CEO, detailed the company's evolution, tracing its history back to the late 1960s with a duck breeding program. The group's layer breeding division was established in 2008, and has gradually been gaining market share worldwide, now selling to 40 countries.

With the world population growing at a rate of 220,000 people each day, animal protein consumption is growing. Eggs are a relatively cheap protein source with a high nutritional value. The global egg market has been growing steadily at 3–4





percent per annum, and global production now stands at some 63.5 million metric tons. Along with growing production, there is an increase in alternative housing systems for egg production, particularly in the EU.

Globally, the highest demand is for brown eggs, which have a market share of 50 percent, followed by white eggs, at 46 percent. The remaining 4 percent is accounted for by tinted eggs, which are primarily consumed in China and Japan.

Novogen offers the NOVOgenovogen Brown, Tinted and White layer, and Mickael Le Helloco, general manager Novogen, explained that Novogen was supporting the egg industry through providing new efficient genetic solutions for the various market segments. He continued that the Groupe Grimaud is the second-largest multispecies animal breeding group in the world, offering an alternative source of supply and consequently more competition.

Novogen has been focusing on high production potential and efficiency, and ensuring that birds can adapt to various production environments. Selection criteria focus on high standards of egg quality, productivity, efficiency and the ability to produce in a variety of systems.

Thierry Burlot, R&D manager, added that the company monitors birds during the whole laying period, in all types of production systems to assure that they can adapt to different environments. He also focused on the highest shell quality (coloration, shell strength, uniformity) and internal egg quality, which naturally decreases during the life of the bird.

Next decade to bring change, challenge for poultry industry

The next decade will be one of change and challenge for the poultry industry, but those changes will be positive, according to Aidan Connolly, vice president of Alltech Inc., who spoke at the Alltech luncheon at the 2012 Midwest Poultry Federation Convention. "We are in an industry seeing extraordinary change on a global point of view, but the poultry industry is well positioned to take advantage of these changes," said Connolly.

These changes are driven by the fact that each year the world needs to feed an additional 80 million people, while meat demand is skyrocketing with people in the developing world now able to afford more chicken, turkey and beef, said Connolly. Combine that with 25 percent of the world's corn now going to ethanol, and the industry is facing the challenge of accelerating demand with reduced stocks of grain to feed animal agriculture. "We see demand for poultry growing by 29 percent over the next 10 years," said Connolly. "Much of that increased demand will be in Asia, but much of the production will come from North and South America," He said the U.S. and Brazil have the resources and structure to be the world's low-cost producers of poultry, and they will see continued growth in demand for exported products.

Connolly said the key to meeting that challenge lies in new technology, such as nutrigenetics. "We have developed nutri-



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tional programs that impact not only the productivity, but the quality of turkey, chicken and beef," he said. "We can design diets to maximize performance and quality of the animal. These will be a key part of the poultry and meat industries meeting the challenges of the next decade."

Global wheat, soy, corn reserves declining



Farmers are failing to keep up with global demand for food, livestock feed and biofuel.

Global inventories of wheat, soybeans and corn are dropping more than forecast as farmers find themselves unable to keep up with rising demand for food, livestock feed and biofuel, according to reports.

Wheat stockpile forecasts for May have been cut by 1.7 percent to 209.6 million metric tons, while soybean reserves for August are now estimated to reach a three-year low of 57.3 million metric tons, according to the U.S. Department of Agriculture. Corn is expected to reach a 16-year low of 801 million bushels.

Soybean production in Brazil and Argentina, the two biggest growers after the U.S., will drop to 115 million metric tons from 124.5 million metric tons in 2011 and the 127 million metric tons forecast in December 2011, according to the USDA. The latest number is now lower than three years ago, when the harvest was damaged by weather. Global soybean production, at 245.07 million metric tons, is also expected to be about 19 million metric tons lower than 2011, the biggest drop since 1965.

Global use of wheat in livestock feed will reach a record 131.06 million met-

ric tons, up from the 130.66 million metric tons estimated in February, said the USDA.

US to harvest record 2012 corn crop

U.S. corn farmers are expected to harvest a record corn crop of 13.916 billion bushels, 6 percent larger than 2009's record and based on the second-largest plantings since World War II, according to the Food and Agricultural Policy Research Institute.

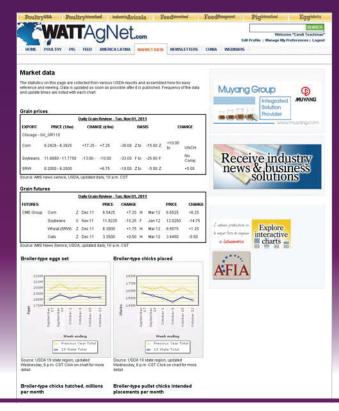
The U.S. Department of Agriculture is predicting even higher numbers, 14.27 billion bushels on 94 million acres of corn planted, after below-normal yields in 2010 and 2011. The institute is estimating 2012/2013 end stocks of 1.346 billion bushels, while the USDA is estimating 1.616 billion bushels.

Both the institute and the USDA expect plantings of the eight major crops to increase by roughly 5 million acres, 2 percent, in 2012 — the largest total since

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1998, according to USDA data:

	USDA	FAPRI
Wheat	58	58.1
Corn	94	93.48
Sorghum	6	5.47
Barley	3.2	3
Oats	2.5	3.02
Soybeans	75	75.14
Rice	2.8	3.15
Cotton	13.2	12.36
Plantings of eigh lions of acres)	t major U.S.	crops (in mil-

US layers down, egg production up in 2011

U.S. layer numbers during 2011 averaged 338 million, down 1 percent from 2010 numbers, according to a U.S. Department of Agriculture report on Feb. 29.

The annual average production per layer on hand in 2011 was 271 eggs, up 1 percent from 2010. Iowa had the most layers in 2011, with 53 million, while Ohio and Pennsylvania rounded out the top three states with 27.7 million and 25.1 million birds, respectively. Montana, however, had the highest average eggs per layer, with 317. Egg production during the year ending Nov. 30, 2011 totaled 91.9 billion eggs, up slightly from 2010 numbers. Table egg production, at 79 billion eggs, was up 1 percent from 2010. Hatching egg production, at 12.8 billion eggs, was down 1 percent.

For more information and poultry statistics, see www.wattagnet.com/ marketdata.html.

Europe facing egg shortages after welfare rules implementation

The Union for the Belgian Egg Products Industry has said that egg processors are finding it difficult to survive since the implementation of the EU's new welfare regulations for laying hens at the beginning of the year.

The union says that the regulations have meant that many producers have ceased production or are trying to adapt to the new rules. Cold weather has resulted in increased demand for eggs, further compounding the problem.

The combination of these factors has

resulted in a situation where egg producers cannot satisfy demand and processors are having difficulties in supplying the contracted quantities as they cannot source enough eggs, according to the union. The scarcity of eggs has resulted



A lack of compliance is resulting in diminishing supplies and rising prices.

in a rapid increase in prices, making the situation financially unbearable for processors.

Additionally, there are reports that cake producers in France are warning that they may go out of business due an inability to source sufficient supplies, while in the UK consumers are being warned that the price of eggs is due to rise sharply.



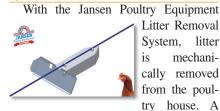
PRODUCTNEWS

Hydro Systems AquaBlend medicator

The Hydro Systems AquaBlend medicator system is specifically engineered to accurately medicate and/or treat water in most agricultural environments. The AquaBlend is available in two different fixed ratio models (1:100 and 1:128), and is designed to handle both liquid chemicals and wettable powders. There are very few moving parts inside the system, and the entire medicator can be taken apart by hand for maintenance or cleaning in less than 30 seconds.

www.hydrosystemsco.com

Jansen Poultry Equipment Litter Removal System



revolving steel cable with a scraper attached every four meters is installed in the walkways. The back and forth movements of the cable scrapers move the litter to the back of the house where it can be removed

during cleaning. Dust and ammonia levels are also considerably reduced.

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Biomin PoultryStar

mechani-

Biomin PoultryStar is designed to improve gut microflora and to make dayold chicks and birds of all ages more resistant to pathogens, which decreases mortality. It has a soluble application for drinking water, and a spray. The nutrient also increases weight gain and feed conversion.

www.biomin.net

MARKETPLACE



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We started with the best fully Enriched system, and then reverse engineered it to be the most Enrichable system available, making AVECH II the most cost effective system to convert.

Conversion Considerations:

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- 🗹 Cost of Enriched components
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- 🗹 Pre-Planned optimal lighting
- 🜠 Minimum of 5.9" perch pipe space per hen
- 🚺 Wider egg collection belt
- 🟹 Scratch mat auto dosing
- 🟹 Scratch mat cleanliness
- 🗹 Floor support design to handle shifting weights

Terry Pollard

Scott Ewing

1-616-607-4147

1-616-582-4005

tpollard@bigdutchmanusa.com

sewing@bigdutchmanusa.com

Rodger Rumery 1-360-219-6500 rrumery@bigdutchmanusa.com

Greg Griswold 1-417-861-6808 ggris@ipa.net

Jim DenBleyker 1-586-764-0188 jdenbleyker@bigdutchmanusa.com

Kent Krogman 1-616-218-6333 kkrogman@bigdutchmanusa.com

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- Long lasting protection : based on HVT vaccine
- Safety : aqueous adjuvant and no replication in the respiratory tract

