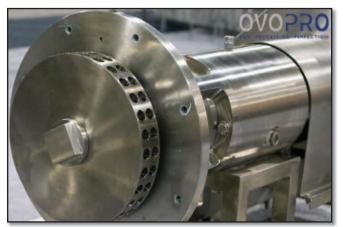
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Innovations for breaking and added value processing



OvoPro Shock module applies the principle of cavitation to homogenize egg and yolk liquid to facilitate pasteurization.



Sanovo pasteurization installations are available in two models with a capacity of up to 1,500 gallons/hour.

By Simon Shane, Editor

he breaking and further processing segment of the U.S. egg industry operates efficiently but with less public or media attention than shell egg production. Further processing represents the equivalent output of almost 100 million hens. Approximately 30 percent of eggs produced in the United States undergo breaking in addition to Smalls and surplus shell eggs.

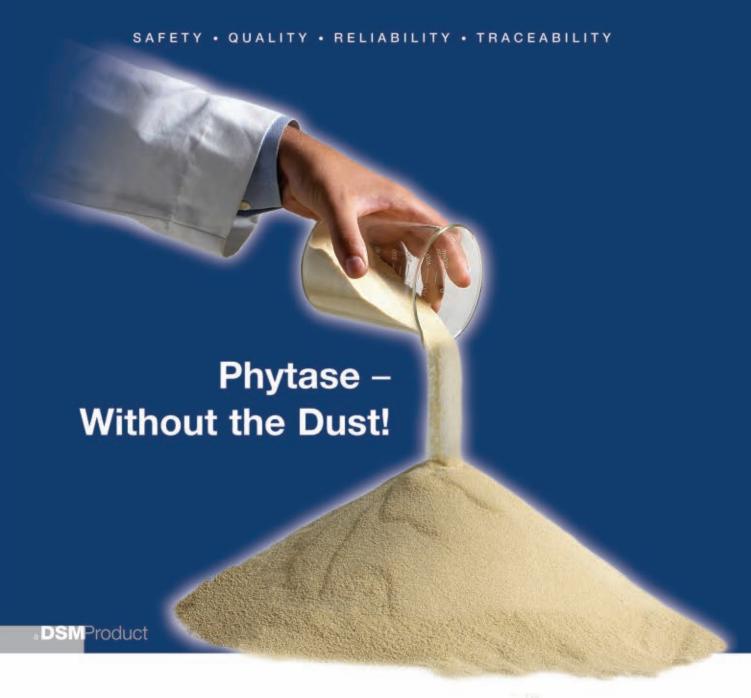
The industry has expanded from approximately 10 percent of eggs broken during the mid-1970s to the present volume. Some industry observers forecast that 50 percent of eggs will be subjected to further processing by 2020.

Demand for pasteurized liquid increased sharply with the advent of Salmonella enteritidis (SE) in the late 1980s and early 1990s. Purchase of liquid by the food service industry and institutional kitchens provided absolute protection against infection at a time when control of SE was less advanced than today. Liability suits with resulting insurance costs and adverse publicity stimulated adoption of liquid by food service providers.

Concern over cholesterol also led to the production and marketing of consumer packs of specially modified liquid products derived from egg breaking.

Breaking, processing status

Currently the structure of the breaking segment of the egg industry is diverse. The fastest growing and largest part involves in-line operations dedicated to breaking. These units, mostly situated in the Midwest, generally hold from 2 to 4 million



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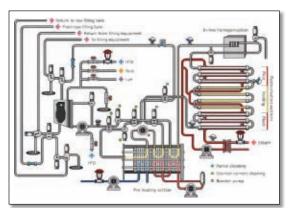
The walt is over.



Innovations for breaking and added value

hens. The strain of hens, dietary formulation, design of housing and equipment and production cycles are selected to optimize efficiency and product yield.

These in-line operations have breakers. They either ship raw product in bulk or have integrated breaking and pasteurization plants. Older off-line breaking plants receive shell eggs which are broken and



Diagramatic view of pasteurization of liquid egg products. Provided by Sanovo.

then pasteurized on-site or transported to a remote plant.

Specialty plants receive shell eggs and bulk liquid for processing and produce a range of products including whole egg liquid, yolks, albumen with additives in a variety of presentations for institutional and consumer markets. Some in-line plants are equipped to both grade and break.

Higher demand

According to Santiago Gomez, director of technology for OvoPro, the company formed following the acquisition of Diamond Systems by the parent of Moba in Holland, the demand for powdered egg in Europe has increased by 40 percent over the past five years. Helge Fillipsen, president of Sanovo-Stalkat USA, has observed con-

solidation in the industry with fewer, larger plants which offer efficiency and economy of scale, creating market opportunities for niche operators. The smaller plants can run limited quantities of specialty products such as eggs derived from cage-free flocks or organic certified product.

Small batches are generally incompatible with larger pasteurizing plants. Changing

items requires plants to strip equipment and clean which is time-consuming and detracts from optimum efficiency. This prompted Michael Foods, the largest U.S. processer of eggs, to acquire the Abbotsford operation in Wisconsin which has capacity and equipment consistent with a full line of products, but limited volume.

USDA market reports and industry price discovery services indicate that shell eggs are purchased at 67 percent of prevailing weekly prices for

specific grades.

In many respects egg processors are in the same position as oil refiners. Recent experience has demonstrated that there are limits to the ability of refiners to pass the higher cost of crude to consumers in the price of gasoline. Profitability, determined by what is termed the "crack spread", relates to the catalytic cracker pivotal to the refining process.

The egg industry has a similar "crack spread" which determines profitability. The cost of breaking stock varies according to shell egg supply and demand. The selling prices of pasteurized products, generally independent of the shell market, are relatively fixed. Rising egg prices erode margins since the supply of shell eggs from independent producers comprising surplus diminishes in

inverse proportion to price.

Exports of processed products do not represent a significant proportion of production since the cumulative value of shipments over the first seven months of 2008 attained \$52 million, a 20 percent increase over the corresponding period in 2007 mainly due to an escalation in unit price, not volume. Japan represents the largest long term importer from the United States but in 2008, Germany, Mexico and Denmark on average doubled their purchases although over a small base.

A small but growing segment of the further processing industry comprises the production of added value breakfast products for consumers and restaurants. Hard cooked peeled eggs are an emerging product with at least six plants processing and distributing medium-grade eggs in brine in bulk packs for catering and more sophisticated modified atmosphere sealed pouches and trays for consumers. The significant challenge will be to develop menu items which are suitable for quick service restaurants and a wider range of consumers.

Breaking equipment

Many plants operate with refurbished Seymour breakers rated at 80 to 100 cph. With pasteurizing plants operating at 30,000 to 60,000 pounds per hour, the need for larger capacity breaking equipment is evident.

Sanovo recently introduced the Opti-Breaker with capacities from 150 to 450 cph. These units have a unique stacked design with a small footprint. Computerized scanning vision of the separation cup allows real-time monitoring of the separation of yolk from albumen. The system detects and limits yolk contamination of albumen with resulting improved attributes under commercial use. This feature requires passage of light through a translucent receiving cup which contains albumen.

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Innovations for breaking and added value

The polypropylene cups have rounded edges which improve efficiency of cleaning-in-place (CIP) during operation and at the termination of processing. Cleaning is efficient since polypropylene has a smooth surface as denoted by electron microscopy. The use of plastic components also reduces noise levels resulting in a more acceptable workplace. Sabic polypropylene material conforms to European Union requirements and is accepted by the USDA as a contact surface for dairy and egg processing installations. Sanovo claims optimal yield from the design and location of the breaker bar and the method of tilting the cup to allow draining over five seconds.

OvoPro markets the U.S. Diamond egg breakers following restructuring of the Diamond and Moba affiliates. These units have a linear configuration and are available as



OvoPro 400S egg breaker separates liquid products with a capacity of up to 400 cph.

breakers or combination breaker-separators. OvoPro claims high purity of egg white with a fat content of less than 0.03 percent.

An electronic yolk scanner automatically detects contamination of egg whites. Ovo-Pro breaker-separators have an exclusive zoned cup wash system maximizing cleanliness and conserving water. The electronic monitoring system interface provides a total eggs processed read-out with records of performance of each cracker to identify malfunctions and optimize efficiency.

Variety of features

OvoPro offers centrifuges which can process up to 280,000 shells per hour. Features include basketless operation using a coneauger and a time release lubrication module. Operating temperature, product depth, retention time and air flow are variable.

Diamond has developed a unique

"Breaker-in-a-Box," a turnkey egg breaking system installed and operational in a 40-foot shipping container. The module is capable of breaking, filtering and pasteurizing up to 100 cph or 450 gallons of whole-egg per hour. These units are designed for rapid transport and deployment adjacent to a specific egg plant and can operate in consistency with marketing or sanitary needs.

Liquid handling and pasteurization

Sanovo Stalkat offers a complete range of liquid handling pasteurization and filling equipment with accessory CIP systems, albumen treatment and drying. A range of collection vats to receive egg liquids, coolers to reduce the temperature of yolk, albumen or whole egg liquid, egg pumps and filters to remove egg shells and impurities are required. Sanovo pasteurizing plants are

designed to promote long shelf life. Ancillary equipment can provide flexibility to produce specialty products incorporating salt, sugar and other additives. Pasteurizer capacity ranges from 150 to 2,500 gallons per hour and incorporates CIP and modifications to conserve water and energy.

Ultra-filtration and reverse osmosis are offered by Sanovo to reduce the moisture content of albumen prior to drying. Systems incorporate horizontal spray drying which reduces space requirements in plants

especially when retrofitting. Installations can dry whole egg to 3 percent moisture content at a rate ranging from 50 pounds per hour to 1,500 pounds per hour. Yolk and egg white can be dried to 3 percent and 7.5 percent moisture content respectively with maximum capacities of 3,500 pounds per hour and 1,200 pounds per hour.

A full range of further processing equipment from OvoPro provides filtration and cooling, holding tanks with CIP and pasteurizers which range in capacity from 100 to 10,000 pounds per hour. The patented double-wall regeneration section is designed to operate without pressure differential controls or low efficiency water-egg-water systems. OvoPro pasteurizing installations incorporate a PLC controller with a touch screen interface. The OvoPro Shock units function as homogenizers by applying the principle of cavitation under pressure which

generates heat energy. Microscopic bubbles are produced as liquid is passed through the unit and the energy released as the bubbles implode results in heating and microscopic mixing. The application of OvoPro Shock equipment allows for pasteurization at high temperature for extended time periods while preserving functionality of the product.

Filling systems can involve ultra clean or aseptic distribution of product. Presentations range from bulk tanks, refrigerated totes, plastic buckets, bag-in-box or screwcap cartons for consumer purchase.

Hard-boiled egg processing

Sanovo offers complete lines which cook and peel eggs at rates from 25 to 60 cph. The cooker incorporates a system which centers yolks. Peeling results in a smooth albumen for optimal presentation of high-grade product. Hard-cooked peeled eggs are usually packed in pouches or trays with modified atmosphere packaging comprising nitrogen and carbon dioxide and less than 0.5 percent oxygen.

To obtain acceptable shelf life, special multi-ply barrier pack bags are used which maintain anaerobic conditions until packs are opened. Some plants in the United States further-process hard-cooked peeled product into deviled eggs which are sold as kits containing half egg whites and yolk mixed with paprika and other spices.

The bottom line

Further-processing of eggs will represent a greater proportion of total U.S. production in the future. Present preoccupation with generic eggs can be compared to the status of the broiler industry in the 1960s. Industry growth and continued profitability of broiler meat production has resulted from portioning and further processing to enhance value and provide convenience to consumers and food service.

Promotion of eggs by industry groups and the American Egg Board has emphasized nutritional value. Educational materials and research priorities have of necessity focused on countering misinformation regarding an alleged relationship between dietary cholesterol intake and cardiovascular disease.

It is now appropriate to develop new products which require breaking and separation of components followed by pasteurization as the first step. The unique and beneficial nutritional and physical attributes of yolks and albumen can be combined with other ingredients to create products which generate additional indirect demand for eggs.



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statistics and projections as we approach 2009

gg industry statistics covering actual costs through June 2008 and projections for 2009 were formulated by Poultry Specialist-Emeritus Don Bell, University of California at Riverside.



Don Bell

Highlights include:

The first of the month estimates of the number of U.S. table egg hens show an increase from 208 million in August to a peak of 291 million in December 2008. Thereafter hen numbers will decline to 287 million by June 2009.

2 Projections of the UB Midwest Large-grade market quote show a high of 130 cents/dozen for November and December 2008 with a gradual decline from 118 cents/dozen

Farmer Automatic

in January to a low of 101 cents/dozen in March following the Easter period.

3 The total hatch for the first six months of 2008 amounted to 121,788,000 pullets representing a 5.8 percent increase over the corresponding period in 2007.

The 24-month accumulated hatch of pullets, which is closely correlated with future egg prices showed 2.8 and 2.7 percent increases respectively for May and June of 2008 over the corresponding months in 2007. The current accumulated hatch is greater than 2007 by approximately 12 million hens. Analyses covering the ten years from 1996 through 2006 indicated that for each one million additional chicks hatched in the 24-month period, the UB Midwest large egg price was depressed by 0.4 cents/dozen representing a projected decline of 5.0 cents/dozen.

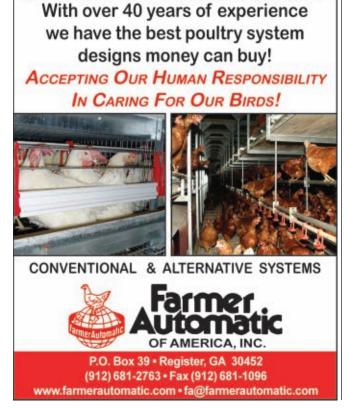
5 The projection of pullets transferred into layer houses for the first eleven months of 2008 will be 190.8 million or 4.7 percent, equivalent to 9.0 million hens more than the first eleven months of 2007.

6 The proportion of the national flock which was molted over the first six months of 2008 declined by 2.9 percent from 2007 levels which averaged 24.7 percent.

7 The corresponding percentage of hens slaughtered to date increased markedly to 37.1 percent representing a 29.6 percent increase over 2007.

Eggs consigned to breakers or processed in-line increased to 32.7 percent for the first half of 2008, representing a 3.5 percent increase over the corresponding period in 2007.

The cost of egg production has increased steadily over the first six months of 2007, increasing from 63.9 cents/dozen in January to 73.1 cents/dozen in July. These values represent double digit increases over the corresponding period in 2007 and range from 13.2 percent in January to 24.6 percent in July. For the first six months of 2008, feed costs averaged \$249/ton representing a cost per dozen of 43.7 cents. Pullet depreciation averaged 3.23 cents/dozen reflecting an increase in feed costs and contributing to an average cost of 67.9 cents/dozen for the first six months of 2008. In July 2008, average egg price was 73.1 cents/dozen for the seven surveyed regions and ranged from 69.4 cents/dozen in the W.N. Central region to 80.5 cents/dozen in the West.



Don Bell can be contacted at Don.Bell@ucr.edu. His Web site is www.animalscience.ucdavis.edu/extension/avian.

WITH DR. SIMON SHANE

Measurement of a dynamic industry

his edition of *Egg Industry* focuses on breaking and further processing, an important segment responsible for handling and distribut-



Simon Shane

ing the output of 100 million hens. Profound changes have occurred in the technology, product development and marketing of liquid egg which have implications not only for this sector but the entire industry.

Innovation Breeds Success

Consolidation and a trend towards larger units dedicated to breaking and

pasteurization are dictated by the need for efficiency which contributes to economy of scale.

Recent acquisitions and rationalization suggest further maturation of the non-shell segment of egg production. Hopefully this will parallel progress in the broiler industry, commencing in the 1970s, which led to the emergence of added-value consumer and institutional products which contribute to profitable expansion and stability in a competitive market.

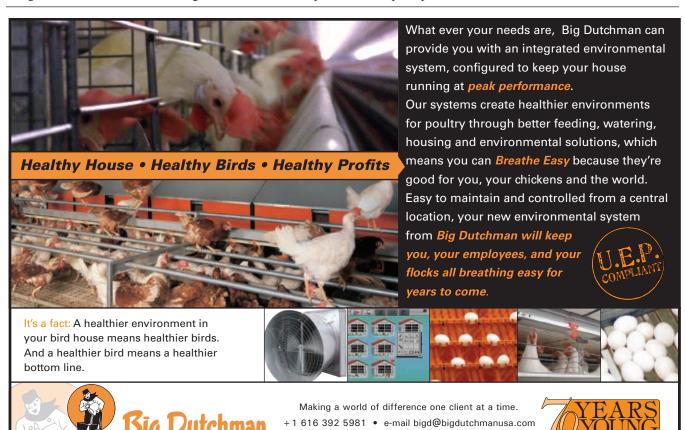
Other articles in this edition highlight new equipment and novel technology. The comments of Marcus Rust, executive vice president of one of the 'Big Five' are illuminating not only from the perspective of the recent history of our industry but also his perception of how we may develop in the future, given emerging challenges.

During November, *Egg Industry* will conduct an annual survey which will be expanded this year to provide more comprehensive data which we will analyze, process and publish in the February 2009 edition. We rely on your goodwill to supply the requested information which we hope will provide a picture of the industry and will help in planning within your operations.

As editor I would appreciate feedback from readers on content and encourage suggestions concerning topics for future articles.

Thank you for your support.

sshane@nc.rr.com



www.bigdutchman.com

Marketing sawy grows Rose Acre Farms

New North Carolina complex will eventually house 4 million hens.

arcus Rust, executive vice president of Rose Acre Farms, represents the third generation of a family-owned enterprise with over 22 million hens. *Egg Industry* had the opportunity to discuss the current status of U.S. egg production and future trends with this egg industry leader.

Egg Industry: Please recount for our readers how Rose Acre Farms has become a major world-class egg producer with a significant share of the U.S. market.

Marcus Rust: Our enterprise was established by my grandparents who had about one thousand hens and were the biggest producers in their county in the early 1940s. The seasonal slump in the market price of eggs in spring as hens came into production resulted in the practice of feeding eggs to hogs since traders would not buy them. Instead of throwing away eggs my grandfather had my father take them to market

local producers and these were handcandled, graded and sent to market.

EI: When did the family commence production?

MR: The first house was built in 1953 and held 5,000 hens on the floor. By 1960 we had 70,000 hens and by 1964, 240,000. In 1965 we built our first cage house for 100,000 hens. Mechanical collection was extremely inefficient and a number of systems were tried before we achieved success. In 1967 we built our first inline operation with 100,000 hens and installed a 35 cph Eggomatic grader. In 1972 Jen Acre Farm was erected holding 1.2 million hens. This was followed by the Cort Acre complex which we started in 1977 and completed in 1981, eventually holding 2.4 million hens. We continue to expand looking for higher priced market areas with grain production and consumer demand. Higher energy prices and nutrient input costs for

which is still undergoing appeals. Misfortunes and adversity strengthened our resolve and provided valuable experience going forward.

El: What are the significant challenges facing our industry today?

MR: Feed and transportation costs are the most important but this is a reflection of factors which cannot be controlled by egg producers. International market demand for grains and diversion of corn to ethanol both play a role. Other factors of concern include the welfare situation and environmental restrictions.

El: What changes do you see as a result of higher feed cost?

MR: I believe we should consider shorter cycles since the return from hens during the terminal part of their first and second production periods is low in relation to feed consumption. We should also consider obtaining greater value from sale of manure. Right now with the price of fertilizer, poultry manure is worth up to \$130 per ton based on nutrient content and capacity to improve soil texture and crop yield. It is evident that we also have to control the supply of eggs since over-production inevitably results in a drop in realization.

EI: Rose Acre has traditionally been strong in breaking and processing. What are the prospects for this segment of our industry?

MR: In the 1970s, 12 percent of eggs were broken compared to slightly more than 33 percent at the present time. It is my opinion that 50 percent of eggs will be marketed in other than whole shell form by 2020. We will have to develop new

'It is my opinion that 50 percent of eggs will be marketed in other than whole shell form by 2020.' Marcus Rust

in Indianapolis together with other farm produce. He found a ready market and a local Indianapolis store owner with six stores asked him to return the next week and bring more eggs to his stores and some other retail outlets. This pattern snowballed and it became obvious that eliminating middlemen at the county level and establishing a relationship with city distributors created a more even marketing situation favorable to small operators. Our family started to collect eggs from numerous small

grain and soy production are going to change the location of the production facilities in the future.

EI: Was it just plain sailing?

MR: No. We had our problems. Shortly after completion of Jen Acre Farm the packing plant burnt down together with two adjacent houses. We experienced legal problems with an antitrust predatory pricing lawsuit and in 1990 we unfortunately encountered SE which resulted in extensive litigation with the USDA

products and expand the demand for existing items. For example deviled eggs are a delicacy served at receptions and picnics. We need to find a way to incorporate deviled eggs and other presentations for quick service restaurants. The contribution to de-

Visit Rose Acre Farm's Web site at www.roseacre.com

mand by the major chains offering breakfast menus has helped considerably with disposal of medium grade.

EI: We are recording increases in floor and non-confined production. Expansion has been rapid but over a small base. Do you see this trend continuina?

MR: It's strange that when we started in the egg industry we were all on the floor and then we went to cages and now we seem to be reverting. Sure, there is a market for cagefree product and the industry will respond by installing suitable floor systems in old houses equipped with obsolete cages. We have available technology from U.S. broiler breeders and can draw on experience from Europe.

EI: How about organic production?

MR: Cost will be an important limiting factor. Personally I feel that organic production is incompatible with an in-line operation which presumes high efficiency and extreme biosecurity. Introduction of a disease into a

multi-age complex without being able to resort to treatment will create problems. Organic production in the future will be derived mostly from

small family-owned units or from contractors supplying a company operating an off-line plant.

EI: As one of the largest egg producers how do you view the oligopoly in the supermarket industry?

MR: There are obviously advantages and disadvantages. There is a convenience factor in delivering large quantities to a regional distribution center. On the other hand, supermarket chains are demanding higher standards including delivery of eggs within three to five days of production. Supermarket buyers are also concerned over price fluctuations since they have a need for stability which contributes to their ordering and forecasting.

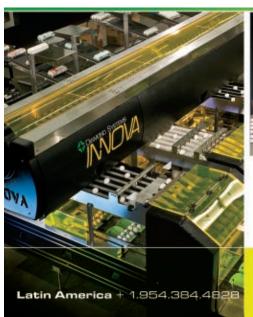
El: Are there additional untapped

markets for shell eggs in the U.S.?

MR: I re-emphasize what I said previously about shorter cycles. We are obviously not getting a premium for all of the Extra Large and Jumbo eggs produced at the ends of the two laying cycles. There are many consumers, including Hispanics and especially the elderly or overweight, who would rather eat two medium eggs than two large or extra large. Restaurants also like this as it cuts unit costs slightly.

EI: Rose Acres is the only large company to have established a completely new complex within the past few years, why did you choose coastal North Carolina?

MR: We selected the site on the basis of proximity to markets, a long distance from other egg operations, optimizing biosecurity. The fact that the sandy soil was poor in nitrogen suggested that disposal of manure would not be a problem. The citizens of Hyde County were extremely receptive and supported our application despite opposition in the State Capital. North Carolina and Virginia are basically in deficit when considering egg production in relation to potential consumption. All these factors played a role in our decision to establish what will eventually be a 4-million hen complex.







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INDUSTRYNEWS

AEB releases new catalog

The American Egg Board has released their new catalogue of promotional items including merchandise for National Egg month. Offerings include foodservice materials, recreational clothing, consumer cookbooks and aprons, and educational materials all featuring the Incredible! logo.

For further information and orders contact AEB at www.aeb.org.

Egg exports decrease by 46 percent

Based on USDA data, Dr. Renan Zhuang, an economist with the USA Poultry & Egg Export Council summarized export data for shell eggs and egg products in the Sept. 15 edition of Monday Line. During the first

seven months of 2008, cumulative shipments amounted to 26 million dozen representing a 46 percent decrease from the corresponding period in 2007.

Exports were valued at \$23 million (88 cents per dozen) down 39 percent by comparison. The quantity exported represents the equivalent of 2 million hens or less than 1 percent of the national flock, on an annualized basis, assuming standard industry parameters.

Cumulative exports of egg products amounted to \$51.7 million, a 20 percent increase over the first seven months of 2007. Japan, the largest customer for U.S. egg products increased offtake as did Germany, Mexico and Denmark.

USDA cuts corn and soy projections

Harvest projections for both corn and soybeans were downgraded by the U.S. Department of Agriculture on Sept. 12. U.S. farmers are expected to produce 11.0 billion bushels of corn representing a 1 percent reduction over 2007. Yield is projected at 152.2 bushels per acre or 2.8 percent higher than last season. The revised forecast raised December corn futures to the 30 cent limit to \$5.63 per bushel, a 5 percent increase over the previous day's close.

The soybean harvest will be 2.93 billion bushels down 5 percent from the 2005 record. Yield was reduced to 39.6 bushels per acre down 9.3 percent (3.7 bushels) from 2007. November soybeans rose 26 cents to \$12.02 per bushel.

Corn and soybeans have retreated approximately 30 percent from their highs in early summer when late planting and export demand were high. With an improvement in weather and a strengthening of the U.S. dollar together with a weakening in demand from traditional importers, prices have drifted lower. The late season rains associated with hurricanes Gustav and Ike and possibly others may affect yield and quality. Certainly mycotoxin contamination of the 2008 corn crop will be a concern as will be an early frost with the late-planted crop. Every dollar increase per bushel for corn results in a 6 cent per dozen increase in the production cost of eggs.

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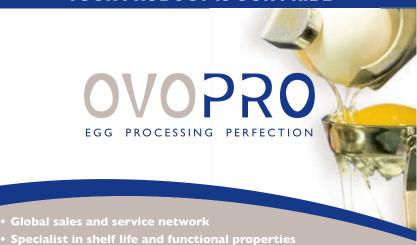
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Concurrent circulation of AI viruses

Results of genetic characterization of avian influenza (AI) viruses isolated in Israel in June 2006 have been released by scientists at the Kimron Institute in association with colleagues at the University of Georgia. It was demonstrated that the Israeli H5N1 strains were closely related to H5N1 viruses concurrently isolated in Europe, Asia and the Middle East.

An H9N2 strain which was previously rarely isolated was identical with viruses obtained from Jordan and Saudi Arabia. This suggests that this strain has become endemic in the Middle East, Co-circulation of both H5N1 and H9N2 AI viruses increases the risk of exchange of genetic material with the possible emergence of a strain

which may become pathogenic to humans and represent a pandemic potential.

New AI test licensed

Inverness Medical Innovations of Maine has received a license from the U.S. Department of Agriculture to manufacture and distribute the Binax NOW test kit for avian influenza (AI) type-A viral nucleoprotein. This antigen capture test kit can be used to establish a provisional diagnosis of AI by identifying genetic material from influenza-A virus which may be present in a flock.

A result can be obtained within fifteen minutes of adding the sample to the kit. The test cannot distinguish between strains of AI virus but is suitable as a quick preliminary screening procedure on which to base immediate control measures which can be modified after confirmation or rejection of the initial diagnosis.

USDA renews AI research funding

The U.S. Department of Agriculture announced continued funding of \$5 million for a Coordinated Agricultural Project (CAP) on avian influenza (AI). The second phase will be led by the University of Maryland and will involve researchers and extension specialists from a number of cooperating Land Grant institutions.

The first phase of the project, initiated in 2005, achieved a number of advances in diagnosis and control of AI applying basic studies on epidemiology, molecular biology and vaccinology.

A continent-wide network has been established to study the ecology and biology of AI viruses isolated from free-living birds. One component of the project demonstrated

that quail can serve as a host for AI viruses which facilitates changes in the viral genome to potentially become pathogenic to humans. CAP has developed new diagnostic procedures and is investigating the production of innovative vaccines suitable for mass application for flocks in Africa and Asia. Advances have been made in the technology for depopulating and disposal of flocks diagnosed with AI, a critical component of control and eradication.

Optimistic projection for egg prices

The most recent update of the monthly egg forecasts produced by Don Bell of the University of California, Riverside, indicates continued acceptability of egg prices through the first quarter of 2009 with a

moderate decline thereafter through June 2009.

Projections for Midwest Large (cents per dozen) are: November 2008, 140.6; December 2008, 140.6; January 2009, 129.1; February, 122.6; March, 129.1; April, 118.3; May, 112.6; June, 116.9; July, 119.0;

Future egg prices are estimated applying a formula based on the previous 24-month total hatch. Projected number of hens in the national flock will attain 289 million in January 2009 and will decline slowly to 286.4 million in July 2009.

Feed cost for August 2008 averaged 40.5 cents per dozen for six regions representing a 16 percent decline over July, contributing to a total production cost of 64.7

cents per dozen compared to 73.1 cents per dozen during the previous month.

August profit amounted to 16.8 cents per dozen for all regions compared to a loss of 6.3 cents per dozen in July. For the first eight months of 2008, average profit per dozen has attained 28.3 cents.

Proposed AEB annual budget

The 2009 proposed budget of the American Egg Board includes a provision of \$12.5 million, representing 61 percent of the anticipated assessments totalling \$20.5 million. Aggregate expenditures in 2009 will amount to \$25.6 million and will include provisions for nutrition, food service, and marketing communications. Most of the advertising funds will be expended on

media including television, radio and print, representing almost 80 percent of this expense category.

Publicity programs will inform consumers on basic egg cooking techniques, include media outreach efforts, and disseminate health information. Partnerships

with organizations such as Weight Watchers will promote the contribution of protein from eggs in breakfast dishes.



*OvoPro Inc. announces the addition of **Brad Brown** to their sales team for the United States. Prior to joining the company, he spent time at Dolco and Del Monte Corp.





PRODUCTNEWS

Vacuum cups



Vi-Cas Manufacturing vacuum cups are specifically designed for the lifting and handling of eggs. Replacement vacuum cups are available to fit any type of vacuum equipment including lifters, manipulators, pick-and-place systems, packaging, label applicators, robotic end-of-arm tooling, and more. Available in materials including vinyl, urethane, rubber, silicone, oil-resistant vinyl, anti-

static vinyl and FDA-approved materials. Custom designs available.

Vi-Cas Manufacturing www.vi-cas.com

Vision dirt detector



Diamond Systems unveiled the Vision System compatible with Innova graders.

The system can be operated with brown eggs or in a split-lot mode, usually for combined in-line and off-line processing. High resolution cameras inspect each egg 10 times as it rotates. Defects including manure, blood, egg yolk or other particulate matter can be detected. The system distinguishes between defects and acceptable pigmentation including small freckles on brown eggs. New software provides auto-diagnostic capabilities allowing remote detection and correction of defects.

Diamond Systems www.diamondsystem.com

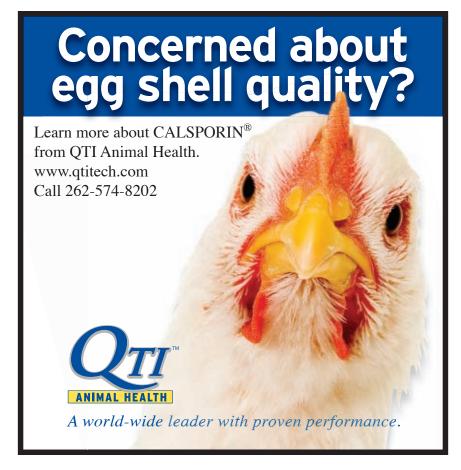
Robotic packing



Smart Motion Robotics now supplies a robotic packer capable of transferring 12- and 18-count egg packs or 30-count flats to 15 and 30 dozen cartons. Based on Fanuc modules the robots are compatible with Diamond 8400 and Moba graders and can be operated through a plant LAN. Each robot can transfer the output of two adjacent packers simultaneously. The system can react to defects including open cartons.

Smart Motion Robotics www.smartmotion.com.





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NOVUS





Conference: Investing in Agricultural Links in Africa; US - Africa Agribusiness Forum

Participants:

- Dr. C. Jerry Nelson, University of Missouri
- Mr. Dave Harlan, Cargill
- Mr. Sergio Bellver, Novus International, Inc.
- Professor Shaukat Abdulrazak, Secretary to the National Council for Science and Technology, Kenya
- Mr. Tasir O. Raji, Permanent Secretary of the Lagos State Ministry of Agriculture and Cooperatives



Visit http://watt.netline.com/mags for details.

MARKETPLACE

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 \$100 per inch per insertion (1-time rate), \$90 per inch per insertion (6-time rate), and \$80 per inch per insertion (12-time rate). The production charge is included except for ads with excessive make-up demands.

> For more information on how to place your ad, contact: **Denise Slager** Tel: 815-966-5575 • Fax: 815-968-0941

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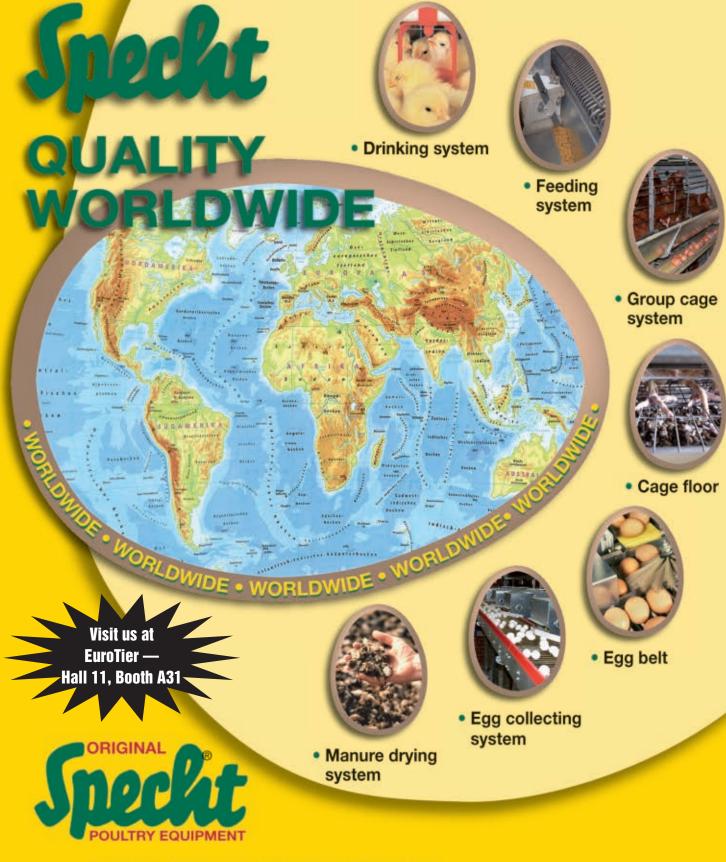
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