

115th ANNIVERSARY

Egg Industry

WATT News for the Egg Industry Worldwide

Your leading agribusiness resource
WATTAgNet.com

Inside

- 3 Editorial by Dr. Simon M. Shane
- 4 Producers have a choice among strains
- 6 Trends in breeding layer hens
- 8 Current health of U.S. egg production flocks
- 12 The moving force behind HumaneWatch.org
- 14 Egg prices down from 2009
- 16 Midwest Foods' Brickland Hatchery
- 17 Products
- 18 News
- 18 Marketplace

p4

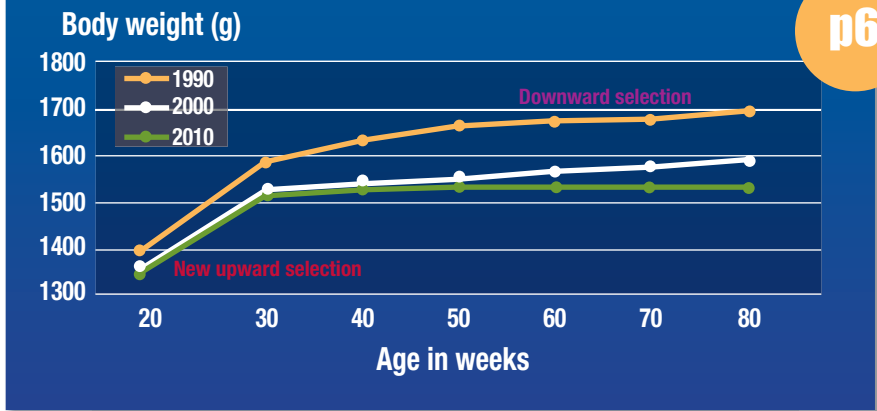
Producers have a choice among strains



Global poultry companies offer range of breeds.

p6

W36 Body weight (g) changes



Current top goal in the industry is to increase immature pullet weight.

p16



Midwest Foods' Brickland Hatchery

Brickland Hatchery set to supply Shaver White and ISA Brown strains.

Specht

QUALITY WORLDWIDE



• Drinking system



• Feeding system



• Group cage system



• Cage floor



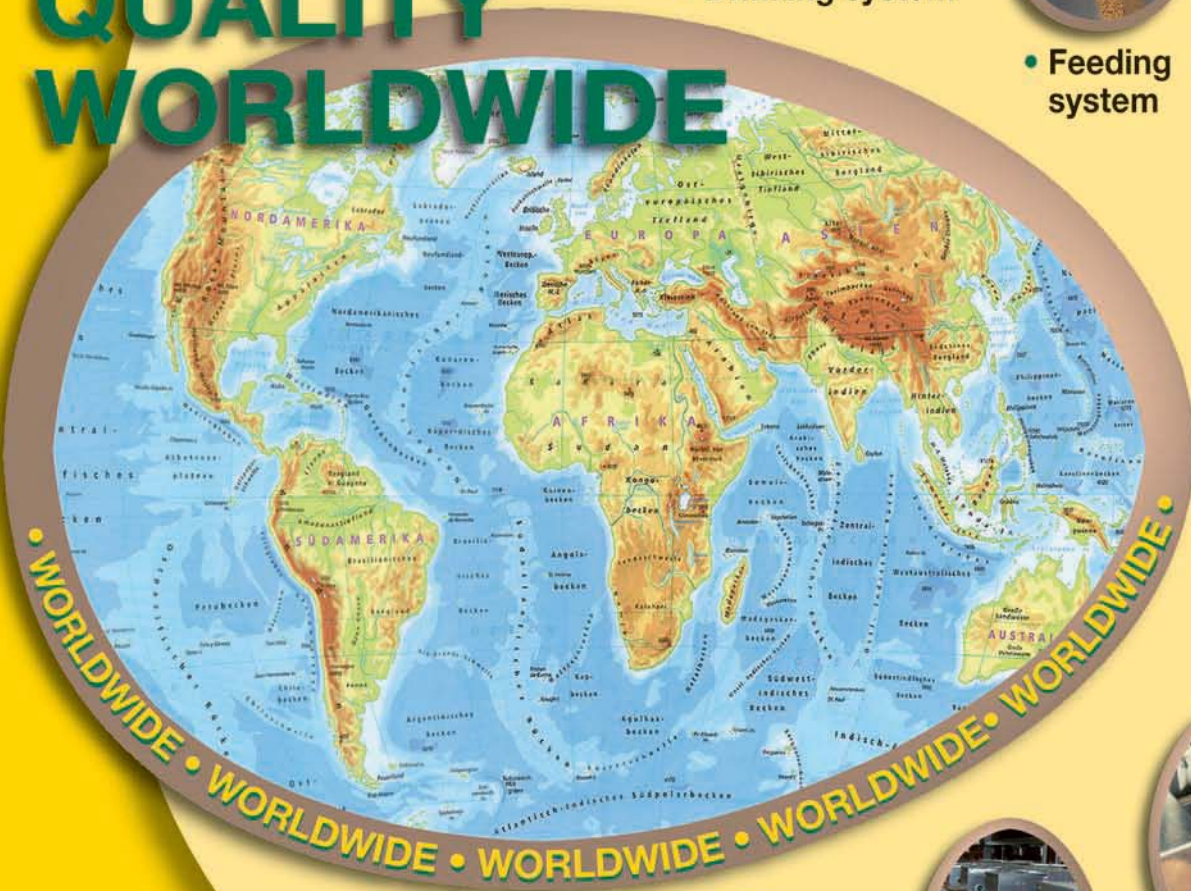
• Egg belt



• Egg collecting system



• Manure drying system



ORIGINAL
Specht
POULTRY EQUIPMENT

Poultry Equipment · Equipment Avicole

Ten Elsen GmbH & Co. KG

Dassendaler Weg 13 • D-47665 Sonsbeck (Germany)
Telefon +49 (0) 28 38 912-0 • Telefax +49 (0) 28 38 27 91
Ten_Elsen@t-online.de • www.specht-tenelsen.de



EDITORIAL

BY DR. SIMON M. SHANE

Breeds, genes and disease

Egg Industry reviews the current status of poultry breeding

Breeding is the focus of the August 2010 edition of *Egg Industry*. During the past decade, a succession of mergers and acquisitions has narrowed the range of suppliers of commercial level stock to two primary breeding companies each with multinational scope. This is a reflection of the high cost and technical complexity of maintaining progress in diverse genetic traits which contribute to profit. Fortunately, the major breeders have seen fit to preserve the bloodlines they obtained and are able to supply branded strains of both brown and white-feathered stock to satisfy the needs of franchise hatcheries, distributors and producers as noted in the overview.

Advances in genetic selection are explained by Dr. Neil P. O'Sullivan with special emphasis on biotechnology as an adjunct to traditional phenotypic selection. The current disease situation is described by Dr. Kenton S. Kreager with reference to preventive strategies to maximize performance. It is recognized that

challenge by infectious agents, improper nutrition, toxins, climatic extremes and deviations from optimal management all detract from the inherent genotype of available egg-producing strains.

During the past month, there have been a number of events which will influence the future of the industry. The apparent resolution of the anticipated 2010 ballot in Ohio, passage of legislation to limit import of eggs into California other than from housing in compliance with Proposition 2 and the initiation of the FDA Final Rule on suppression of SE will affect all producers. These events are reviewed with appropriate commentary. Responses in support or disagreeing with the editorial opinions expressed in *Egg Industry* are welcome.

It is hoped that the unseasonably hot weather has not materially affected production either in livability of flocks or quality of product. Grain yields will most likely be affected by weather patterns, which will inevitably result in elevated feed costs. Fortunately, stability in feed price over the past few months as documented in industry statistics has reduced the impact of the seasonal post-Easter depression in revenue for generic eggs.

Simon

sshane@wattnet.net



Simon M. Shane

Egg Industry

www.WATTAgNet.com

CORPORATE HEADQUARTERS

WATT

303 N. Main St., Ste. 500

Rockford, Illinois 61101-1018 USA

Tel: +1 815 966 5400; Fax: +1 815 968 0941

Publisher: Steve Akins, sakers@wattnet.net

Tel: +1 919 387 7961; Fax: +1 815 968 0941

V.P./Director of Content:

Bruce Plantz, bplantz@wattnet.net

EDITOR

Editor: Simon M Shane

sshane@wattnet.net Tel: +1 919 806 8695

COPY DESK TEAM

Managing Content Editor: Ken Jennison

Community Manager/

SEO Editor: Kathleen McLaughlin

Senior Content Editor: Tara Leitner

Associate Editor: Andrea Saladino

Associate Editor: Kayla Kling

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

Sue Snyder, ssnyder@wattnet.net

Tel: +1 815 966 5523; Fax: +1 815 968 0941

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, spanje@xs4all.nl

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

To order reprints contact **FosteReprints**

+866 879 9144 www.fosterprinting.com.

SUBSCRIPTION INQUIRIES / CHANGE OF ADDRESS:

www.WATTAgNet.com or contact customer service at +1.800.869.6882 or +1.763.746.2792. Business and occupation information must accompany each subscription order. Single copy price US\$14.00 unless otherwise marked.

Change of address: Give both old and new address when reporting change of address to EGG@KMPSGROUP.COM or fax to +1.866.658.6156

POSTMASTER: Please send change of address to KMPs, 15301 Highway 55, Suite #3A, Plymouth, MN 55447 Periodicals postage paid at Rockford, IL, USA and additional post offices.

© Copyright 2010 WATT Publishing Co. All rights reserved.

EGG INDUSTRY (ISSN 0032-5805) is published monthly by WATT, 303 N Main St Ste 500 Rockford, IL, 61101 USA. All rights reserved. Reproduction in whole or in part without written permission from the publisher is strictly prohibited. Egg Industry and its logos are registered trademarks of WATT Publishing Co.



WATTAgNet: News feeds from around the world.

The latest animal agribusiness, poultry, nutrition and pig news.

www.WATTAgNet.com

Producers have a choice among strains

Global poultry companies offer range of breeds.

By Simon M. Shane

U.S. egg producers have a wider selection of strains although these are supplied by two dominant primary breeders. Consolidation within the industry over the past twenty years has resulted in the demise of a number of independents both in the U.S. and Europe. Fortunately, the large companies, which acquired their smaller competitors, retained their gene pools and judiciously incorporated beneficial traits into their programs.

Hy-Line International

Hy-Line International is a subsidiary of Lohmann Tierzucht (Lohmann Breeding Company) of Germany. The holding company recently celebrated its 50th anniversary and has attained the status of a major world force in poultry breeding in both egg and broiler segments. Hy-Line International, the U.S. company, operates an independent breeding program, but the technical resources of the parent company are combined in some joint projects which have mutually beneficial advantages to all stakeholders.

edge genetic technology, maximization of disease control and partnering with the industry with respect to selecting and evaluating performance and strain characteristics. Their product profile consists of the Hy-Line W-36 white egg strain, the Hy-Line brown egg strain and the Hy-Line W-98, which is selected for optimal egg mass.

Hendrix Genetics

Hendrix Genetics is a multi-species breeder of egg production strains, turkeys and swine, with headquarters in Holland. The company has expanded its operations since re-acquiring the breeding business previously operated by Nutreco, with a current portfolio of brands including ISA of France and DeKalb, Shaver and Babcock of the U.S. Currently the company operates primary breeding programs for egg production strains in the Netherlands, France and Canada.

Hendrix Genetics has centralized operations in Canada for North and Central America, Japan, New Zealand and other

their area of operations. These include the Midwest Food Association, Morris Hatchery in Georgia, West Wind Farms in New York and Merrill Farms in Idaho, among others.

The situation with regard to the current Hendrix Genetics strains in North America has been recently rationalized. Midwest Foods Association, a cooperative purchasing group, operates parent stock farms and makes use of company farms and contractors to produce Shaver and ISA brown commercial chicks hatched and distributed from Midwest Farms located in Blackstone, Va. Centurion Poultry operates parent stock under the Bovans white and brown strains, white egg strain and the Amberlink brown egg strain in DeKalb, Texas.

Challenges facing primary breeders

The major traits of concern to the industry are incorporated into sophisticated selection programs, which weight attributes to, such as egg numbers, livability, feed conversion efficiency, shell and internal quality, egg mass and yield. Changes in the structure of the industry also require attention to less heritable characteristics including behavior, adaptability to floor and cage systems, use of nests, pullet weight gain and conformation, retention of plumage and the ability to efficiently convert critical amino acids in feed into eggs.

In addition to conventional index selection, geneticists are now applying

More on genetics: "Feed Efficiency from a Breeding and Genetic Viewpoint." www.WATTAgNet.com/5148.html

Lohmann and its U.S. subsidiary base their activities on three pillars which comprise of the application of cutting

nations of the Pacific Rim. Parent stock chicks are distributed from Ontario to affiliated hatcheries and customers in

molecular biology to identify individuals, families and lines with desired characteristics. Application of SNIP (single nucleotide polymorphism) analyses is contributing to an advance in the rate of selection for desirable characteristics. Both major breeding companies have extensive in-house and cooperative programs with universities and research institutions.

Based on the reality that 30% of eggs produced in the U.S. are broken for further processing, breeders are attempting to address the needs of this significant segment of the market. It is possible that

duction, yield and quality characteristics.

All breeders maintain cooperative evaluation programs with selected representative producers. New strains are tested under field conditions and the results are correlated with data from controlled studies. This ensures that both beneficial and adverse traits can be quantified in the field using large flocks under diverse climatic and housing conditions before general release.

It is axiomatic that the genetic potential of available breeders is seldom achieved under commercial conditions. Restraints

from optimal production. The technical service activities of the primary breeders are extended to producers in an attempt to bridge the gap between genotype and phenotype. This is constantly narrowing even as genetic progress is made.

Conclusion

The primary breeders have a considerable investment in personnel, facilities and equipment. It is necessary to commit resources and establish parameters for a selection program at least four years in advance of marketing commercial level stock.

Geneticists have to integrate advanced science, practical selection and forecasts of consumer trends in making decisions which may represent the difference between commercial acceptance or relegation to a non-viable status. The complexity and cost associated with breeding relative to the return in a competitive environment has been the major driver for consolidation and acquisition. **EI**

The major traits of concern to the industry are ... egg numbers, livability, feed conversion efficiency, shell and internal quality, egg mass and yield.

within five to ten years specific strains will be developed to satisfy the requirements for breaking with respect to pro-

imposed by disease challenge, housing, nutrition, climatic extremes, parasites and management deficiencies all detract

A Balanced Immune System:



UNIQUE NUTRITIONAL METABOLITES



It's What All Poultry Need.

Intestinal function determines bird health and performance. Our unique nutritional metabolites support robust digestive health. How? By balancing gut microbiota, gut morphology and the immune response. You can measure the value of Original XPC™ in three ways:

PRODUCTION PERFORMANCE | FEED EFFICIENCY | OVERALL FLOCK HEALTH

In poultry research trials*, feeding all-natural, science-based Original XPC™ consistently proved to be the healthy decision.

*Data available at www.diamondv.com or 1-800-373-7234.
©2010 Diamond V Mills, Inc. All rights reserved.
Diamond V® is a registered trademark and Original XPC™ is a trademark of Diamond V Mills, Inc.



For more information call 800-373-7234 or visit www.diamondv.com

Trends in breeding layer hens

Current goal is to increase pullet weight.

By Dr. Neil P. O'Sullivan



Hens have the lowest carbon footprint of all farm animals with 2.1 lbs. of carbon used to produce 1.0 lb. of eggs.

Annualized Genetic Gain		
Trait	Hy-Line Brown	Hy-Line W36
Age @ 50% Pr	0.6	0.7
Livability in Lay	0.2%	0.1%
Livability in Grow	0.04%	0.05%
HH Eggs	2.5	2.3
First Egg Weight	0.25g	0.20g
Egg Weight @ 26 W	0.10g	0.15g
Egg Weight @ 56 W	0.00g	0.01g
Shell Strength	4g	5g
Haugh Units	0.6	0.6
Body Weight @ 20 W	25g	20g
Feed Conversion	1.3%	1.2%

After many generations of selection, breeders have now developed layers which mature at a young age. The rate in advancing onset of sexual maturity corresponds to a half day earlier each year. Changes in egg weight from initial production to maturity have increased by as much as 0.35 g. per year.

The first egg which once weighed 40 g. now weighs 47 g., and a mature 60 g. egg weight (47.5 lb. case weight) is now attained between 30 and 36 weeks of age. This has all happened while mature body weights have been declining. Mature weight of Leghorn strains has decreased by 5 to 15 g. per generation, but this has had a negative influence on the weight of immature pullets.

Breeders have now adopted quantitative

ing mature hen size. This will enable the mature flocks to have low maintenance costs. The immature pullet will be able to achieve the needed body size to enter production at the correct age and weight to maintain high levels of peak production and persistence.

Pullets are now subjected to more intensive vaccination programs which impose stress and divert nutrients from accretion of body mass to developing an immune response. As pullets are prepared for cage-free egg production, demands on muscle development are very high.

This requires the selection of more robust pullets which then enter lay and continue growing to 32 weeks of age.

Increasing performance, wellbeing

Geneticists are continuing in their efforts to achieve improvements in both performance and wellbeing. Some of the considerations in contemporary selection programs include:

- ✓Upgrading flock wellbeing through enhanced livability;
- ✓Improved social interactions within the flock, for both non-confined and caged egg hens;
- ✓Selection for improved feather cover; and
- ✓Appropriate nest egg laying behavior.

All of these traits are characterized by moderate to low but sustainable rates of progress.

Currently, commercial hens have the lowest carbon footprint of all farm animals with 2.1 lbs. of carbon used to produce 1.0 lb. of eggs. The rate of improvement in feed conversion has attained a consistent improvement of 1.3% per annum.

More efficient feed conversion is due to consistent advances in rates of lay, egg mass produced, lower adult maintenance cost, better feather cover, and superior egg quality. This translates into a higher percentage of eggs, which are marketable for each successive generation.

Dr. Neil P. O'Sullivan is Director of Research and Development for Hy-Line International.

Read about common issues in layer pullet care.
www.WATTAgNet.com/8490.html

methods which allow the body weight curve of hens to be described statistically. One way to do this is to use random regression models, which have been applied to changing the shape of the curve in egg weight in breeding programs for many years.

The goal of breeders today is to increase immature pullet weight. Targets at Hy-Line are to increase pullet weight by 5 to 20 g. while controlling or still lower-

**BALANCED
FROM THE INSIDE OUT**

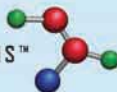


CloSTAT[®] ACTIVE MICROBIAL
For ideal gastrointestinal balance

CloSTAT supports the population of beneficial bacteria while maintaining microbial balance in the digestive tract.



INSPIRED MOLECULAR SOLUTIONS™



WWW.KEMINCLOSTAT.COM

Current health of U.S. egg production flocks

A review of top diseases, including E. coli, infectious laryngotracheitis and focal duodenal necrosis.

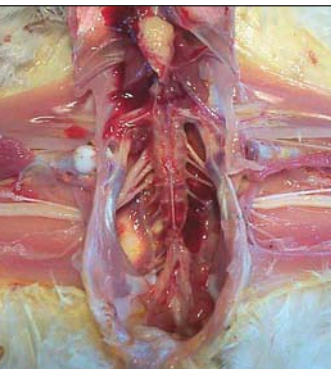
By Kenton S. Kreager, DVM, ACPV



Paralysis from Marek's disease.



Trachea showing inflammation of the mucosa and the presence of exudate, characteristic of ILT.



Sciatic nerve tumors.

The U.S. egg production industry is enjoying a period of relative calm regarding health and infectious disease. We are fortunate that neither the Asian H5N1 avian influenza nor the H1N1 human influenza pandemic were ever introduced into the U.S. poultry industry. There are no current influenza issues and accordingly routine vaccination against influenza is unnecessary.

It is also fortunate that what appeared to be an introduction of very virulent IBD in the U.S. in early 2009 has not extended beyond the index area as was initially feared. There are no other prevalent disease issues causing serious mortality or production losses for the majority of egg producers.

Routine vaccinations are used by most U.S. producers against Marek's disease, IBD (Gumboro), Newcastle, bronchitis, AE and pox. Depending on farm history and location, other vaccinations may include ILT, MG, *E. coli*, coccidiosis and coryza. Layer mortality should generally remain at less than 0.12% per week throughout most of the production cycle. In older flocks, physical vent injury (prolapse, cannibalism, difficulty passing large eggs) can raise mortality rates to a range of 0.15% to 0.20% per week. Routine postmortem examinations and laboratory investigations are recommended to ascertain causes of mortality, especially when loss rate exceeds the normal range.

***E. coli* peritonitis**

For many years, the layer industry has considered *E. coli* peritonitis as the most challenging cause of mortality. The characteristic lesion is either an accumulation of wet yolk-like material with acute mortality or a caseous deposit of exudate on the viscera of the body cavity in chronic cases. Bacterial cultures from fresh dead birds will reveal contamination with *E. coli* bacteria.

Mortality tends to occur at two peaks during the production cycle. The first is in early production, around peak, and the second appears later in lay, typically after 50 weeks of age. Early-lay peritonitis is often associ-

ated with respiratory diseases occurring shortly after housing in multi-age complexes. These include mycoplasmosis (MG or MS) and bronchitis, which have become endemic in large layer complexes and induce respiratory stress shortly after housing. This can easily be demonstrated by serology and confirming mycoplasma seroconversion or an increase in bronchitis titer.

Poor air quality contributes to the respiratory challenges and high levels of dust and ammonia exacerbate the condition. Peritonitis at a later stage in the cycle is more often associated with vent-related trauma (prolapse and cannibalism) that the hen initially survived, but resulted in an ascending infection of the oviduct to the ovary and then extension to surrounding organs.

Peritonitis can be a frustrating disease to control because it is usually a secondary infection to the factors

Watch an interview with Dr. Bruce Calnek on his role in Marek's disease vaccines.

www.WATTAgNet.com/9496.html

discussed above, which are difficult to eliminate from the environment of the flock. Antibiotics can be ameliorative, although restricted in use by FDA rules. The early type of peritonitis is most amenable to antibiotic treatment, and is most successfully treated early in the course of the disease.

Recently, a live genetically-modified gene deleted *E. coli* vaccine was licensed by Fort Dodge Animal Health (now Pfizer Animal Health) that is much easier to administer, provides a good spectrum of cross-protection against multiple types of *E. coli*, and has been commonly adopted by the U.S. layer industry. Most egg producers consider that this vaccine and possibly improved environmental conditions resulting from upgraded ventilation and chlorination of drinking water have

Dr. Kenton S. Kreager is the Senior Technical Service Veterinarian at Hy-Line International.



Announcing NEW

INNOVAX®-ILT-SB!

Provides extended protection against both ILTV and very virulent MD.

Also approved for in ovo application.

A New World of ILT Protection. Without Reactions. Now Approved for *In Ovo* Application.

INNOVAX®-ILT Vaccine



Professional producers know that ILT can have a great impact on time, labor and production costs. And most methods of protection against ILT can present other problems for your flock.

But healthy day-old chicks treated with INNOVAX®-ILT show no adverse reaction to the vaccine. Because INNOVAX-ILT does not use conventional live ILT virus,

the potential for vaccine induced outbreaks is eliminated.

So protect your flock from ILT without adverse reaction. With INNOVAX-ILT.

For more information, contact your Intervet/Schering-Plough Animal Health sales representative or vaccine distributor.

Visit us on the web at www.intervetusa.com/species/poultry

INNOVAX is property of Intervet International B.V. or affiliated companies or licensors and is protected by copyrights, trademark and other intellectual property laws. Copyright © 2007, 2009 Intervet International B.V. All rights reserved. 6/09 PO-IN-31956R

innovax
ILT

reduced the incidence rate and severity in their flocks.

Laryngotracheitis

Many unprotected U.S. layer flocks undergo ILT (infectious laryngotracheitis) challenge and therefore it is now a routine to vaccinate with one of several types of available products. ILT can be difficult to distinguish

clinically from the diphtheritic (“wet”) form of fowl pox affecting the trachea. Microscopic examination of affected tracheas should always be done to arrive at a firm diagnosis before making significant decisions regarding treatment or vaccination.

Live CEO (chick embryo origin) vaccines have the potential to spread between vaccinated and susceptible birds and regain virulence as they continue to spread among and within flocks. For this reason, if the adminis-

tration of vaccine does not achieve adequate uniformity in protection, there can be excessive post-vaccination reaction and clinical outbreaks will occur.

Safer alternative vaccines include a TC (tissue culture) live product that does not appear to spread and gain virulence (Intervet Schering Plough LT-I-Vax) but a single dose is frequently inferior to CEO vaccines in providing protection against severe challenge.

Two live vectored vaccines, a pox vectored product from CEVA-Biomune (Vectormune FP-LT) and an HVT vector from Intervet Schering Plough (Innovax HVT-LT) are now available. These relatively new vectored products contain only some genes of the ILT virus that have been genetically engineered into the host pox or HVT virus and are therefore completely free from any ILT reaction or potential for reversion and spread.

For optimal protection using these vectored products, the pox or HVT vector vaccine virus should be the first ILT product to be administered and should not be mixed with either pox or HVT viruses as applicable at the same time. The U.S. layer industry has adopted vectored vaccines as a safe and effective alternative for many situations.

Focal duodenal necrosis

FDN (focal duodenal necrosis) is a relatively newly recognized disease in U.S. layers. Lesions are relatively minor compared to some other types of enteritis and consist of small dark patches (described as looking like a cigarette burn) in the mucosa of the duodenum, the first loop of intestine surrounding the pancreas. Lesions are normally not visible in birds that have died, so representative live birds must be sacrificed and immediately examined for the presence of these gut lesions.

The disease does not seem to cause any mortality, but was initially associated with a reduction in egg size. More recently, some affected flocks have demonstrated substandard rates of egg production.

The cause of this disease has not been clearly identified, but there is suspicion it may be associated with a *Clostridium spp.* infection. Antibiotics such as tylosin and bacitracin are effective in treating the disease, and some work suggests that competitive exclusion products or combinations of pre- and probiotics may be effective in preventing or reducing the impact of infection. U.S. egg producers are becoming more aware of this condition and examine flocks when egg size

AJINOMOTO®

BREAK THROUGH FEED FORMULATION CONSTRAINTS

ARE YOUR FORMULATION CONSTRAINTS LIMITING PROFITABILITY?

Relax your constraints and stop squeezing profitability. Allow your formulation software to minimize diet costs through the optimal use of L-Lysine and L-Threonine.

To learn more about the effective utilization of Ajinomoto amino acids in your feed, contact us for assistance on setting up your formulations, and for additional data on their economic advantages.

AJINOMOTO HEARTLAND LLC
 www.lysine.com • 773.380.7000
 ISO 9001:2000 ISO 14001:2004
 Ajinomoto® is the registered trademark of Ajinomoto Co. Inc.
 Copyright © 2009 Ajinomoto Heartland LLC

or production problems emerge.

Osteomalacia

Soft bones (osteomalacia) are often identified as a cause of mortality, perhaps in just one or a few dead birds when routinely screening mortality. In some cases osteomalacia may be responsible for excessive losses within a flock. Lesions consist of a rubbery, crooked keel bone, often in the shape of an "S", a collapsed rib cage with enlarged cartilage joints, and weak, easily broken long bones (the head of femur breaks off when disarticulating the hip joint).

It is clear that affected flocks show decreased mineralization of bones but post-mortem examination cannot distinguish among calcium, phosphorus, or vitamin D3 deficiency as possible causes. If calcium or vitamin D3, are the predominant deficiencies egg shells are poorly mineralized and are thin.

It is also unknown why some hens become so severely affected that reabsorption of mineral from the spinal column and legs results in paresis progressing to paralysis and recumbency, followed by death from dehydration. This may occur while the bulk of the flock is totally unaffected. Most nutrient needs of layers are expressed in grams/bird/day and vary by breed and age of the flock.

By accurately measuring the feed intake of a flock, the percentage of each nutrient needed in the feed can be calculated. For example, if we accept the Hy-Line W-36 Management Guide recommendation that a 26-week-old flock should consume 4.0 gm of calcium per hen per day, and we know the flock is consuming 20 lbs/100/day (91 gm/bird/day), the feed should contain 4.4% calcium ($4.0/91 \times 100$) in order to meet required daily intake. This approach should be applied to all the major nutrients as outlined in the breeders' management guides.

When an unusual incidence of soft bones is observed among mortality, the levels of calcium, phosphorus, and vitamin D3 in the diet should be examined with appropriate assay to confirm accuracy of mixing and conformity to formulas. Water quality should be assayed with special reference to pH, hardness and electrolyte content in comparison to accepted standards.

Marek's disease

Prior to the 1980s, Marek's disease (MD) would have been considered the principal disease problem in the U.S. layer industry. At

present, MD is fortunately well controlled. Most of the current success can probably be attributed to the effective vaccine protection provided by the Rispens CVI-988 vaccine that most U.S. egg producers now use. This Type-1 MD vaccine has been shown in Hy-Line challenge trials to provide much better protection than the previously used HVT/SB-1 vaccine combination.

Vaccine alone does not provide complete protection to prevent future clinical emergence of MD infection. Early exposure before immunity is established is a cause of "breaks" and all-in-all-out placement is advised in areas with a high potential for challenge with virulent strains of MD.

The field virus has previously shown the ability to adapt to HVT vaccines and eventually become resistant leading to increasing frequency of field outbreaks. It is hoped that will not happen with Rispens vaccine, but the industry has to be ready in the event of the emergence of new and more virulent strains.

Research will likely lead to the next generation of improved Marek's vaccines, but good flock management to limit the cycling of this virus between susceptible chicks that are not yet immune and older pullets or layers that are likely shedding the virus.

Suppression of the Marek's virus relies on a functional immune system, which must be protected against damage caused by IBD (Gumboro) or CAV (chick anemia virus). Thorough cleaning and disinfection of brooder houses will allow young flocks to establish vaccine-induced immunity to Marek's and IBD before there is significant field challenge.

Deficiencies in basic management and biosecurity will lead to a cascade of disease events and result in flocks producing at less than their genetic potential.

Summary

Egg producers in the U.S. are currently fortunate that catastrophic diseases (HPAI and VVND) have been eradicated and are excluded from our industry. Erosive diseases are controllable by applying immunization and biosecurity in combination with adequate nutrition and acceptable housing and environmental management.

A comprehensive approach to flock health requires a coordinated application of modalities to obtain optimal production reflecting the genetic potential of commercially available breeds. E

Egg Case Packer



Durability
Reliability
Innovation

Massman's **simplicity of design** means virtually no changeover, as the specially-designed load heads handle trays or cartons without change parts. **Simplicity of operation** contributes to ease of maintenance through accessible placement of the few essential serviceable components.

FEATURES:

- Packs 20- and 30-count trays, 12- and 18-pack cartons of eggs!
- Two independent packaging lanes.
- Servo drives on the loaders are fast, accurate and quiet.
- Capable of 25,000 eggs per hour, per lane.

For innovative solutions to your packaging needs call Massman Automation Designs, LLC; designers and manufacturers of precision automated packaging machinery.



MASSMAN
Automation Designs, LLC

Tel: 320-554-3611

Fax: 320-554-2650

MassmanLLC.com

sales@massmanllc.com

Qa. The moving force behind HumaneWatch.org

Director of Research David Martosko explains his organization's fight against misinformation about the animal agriculture industry.

The Center for Consumer Freedom and its website, HumaneWatch.org, have emerged as an effective counter to the misinformation and hypocrisy disseminated by the Humane Society of the United States. David Martosko of Berman and Company, a leading Washington-based research and communications firm, serves as Director of Research for the Center and the principal editor of HumaneWatch.org.



David Martosko

Egg Industry recently had an opportunity to discuss current issues relating to the welfare environment.

Egg Industry: Could you provide our readers with a brief background to your professional activities?

David Martosko: I earned my bachelor's degree from Dartmouth College in 1991, and followed it with an M.A. from Johns Hopkins University. Although my early training was in music, I moved into other forms of communication, including advertising and broadcasting. I served with ABC as a producer, later joining the campaign of New York Sen. Rick Lazio. You can say that I am a media animal.

EI: What is the Center for Consumer Freedom?

DM: CCF is an independent 501(c)(3) organization established about 15 years ago. Its goal is to provide information to consumers about the politics of food. The hot-button issues include obesity, food toxicology, food technology and the "organic" debate, the demonization of individual food ingredients, and of course the impact of the animal rights movement. We believe it's necessary to educate the public about controversial issues, especially when sound science is regularly distorted by advocacy

groups for their own narrow purposes.

EI: How is the Center for Consumer Freedom funded?

DM: There are a variety of funding sources, including more than 100 companies that represent a broad spectrum of food producers, retailers, restaurants, and agriculture. And we get an amazing number of small contributions from individual professionals and consumers. The center's budget is relatively modest, hovering at around \$3 million per year. By way of contrast, the income of the HSUS exceeds ours by a 30-fold factor.

EI: Does the Center for Consumer Freedom have any overriding philosophy?

DM: We oppose limits on the range and extent of the public's responsible access to food and beverages of their choosing. We support every consumer's right to pursue his or her own options, be it vegetarian, vegan, Atkins, or a conventional diet. We recognize that eating nothing but donuts (the "Homer Simpson diet") is a stupid way to go through life, but it's also not the government's place to take that éclair out of anyone's hands. As the Center for Consumer Freedom's name implies, it serves

Street Journal ran an article about the HSUS's politicking, documenting the considerable amount of money the group expended in its political campaigns. The HSUS spent more in that year's election cycle, the WSJ reported, than Exxon Mobil. And it contributed more to candidates for Congress than Halliburton. After that wake-up call, we saw Proposition 2 unfold in California. And it became painfully clear that unless someone educated the public about just what the HSUS is (and what it isn't), the group would run the table everywhere it went. So HumaneWatch.org was launched in February of this year to expose the HSUS's unseen hand and try to bring the public's perceptions back in line with reality. In short, we're putting the HSUS, its finances and its practices under a magnifying glass. And it's becoming clear that the organization's carefully preened public image is a sham.

EI: What lessons can we learn from the recent settlement in Ohio?

DM: First and foremost, we learned that the HSUS can pull the wool over anyone's eyes. I confess that at first blush, I thought Ohio farmers were getting a good deal. I even wrote about it. But by the time the

See what Dr. Simon Shane has to say about the establishment of the Ohio Livestock Care Standards Board. www.WATTAgNet.com/17046.html

as a counter to the "food fascists" who seem to derive a perverse pleasure from imposing their views on the unwilling and the uninformed.

EI: How did HumaneWatch.org come into being?

DM: After the 2006 election, The Wall

actual text of Gov. Strickland's "Buckeye Compromise" was released the next day, the whole thing started to smell like day-old fish. The other thing we must learn is that the HSUS is playing a much longer game than farmers are. Livestock producers, like most businessmen and women, are busy thinking about the next quarter, the

next slaughter, the next auction. The HSUS is looking 20, 30, even 40 years down the road and figuring out how far it can move Americans' perceptions and preferences by then. This time, not only did Ohio farmers get a raw deal in the short term, but the HSUS also advanced one step closer to its long-term objectives.

EI: Do you consider that the HSUS may "go federal" if it's rebuffed at the state level?

DM: A federal approach does not seem likely in this Congress, and if the pollsters are right, things will be quite difficult for the HSUS in the next one. But I think yes, the next time the HSUS senses a political majority on its hands, it's going to parlay its intermediate state-by-state victories into a federal bill. Whether that goes over like a lead balloon, it's too soon to say. It's also worth noting that the HSUS may be hoping for as many states as possible to emulate Ohio's "livestock care standards board" strategy. With a dozen or so different boards, we're going to see a dozen or so different standards. It's just a matter of time before the HSUS argues (to the USDA, for starters) that we need a single nationwide standard to reconcile all those differences. If that happens, I don't think livestock producers will like the result.

EI: What can producers do to protect their public image?

DM: Based on recent events the egg industry should redouble its efforts to ensure that housing, procedures and actions are consistent with the highest standards of welfare and husbandry. There's no doubt in my mind that the HSUS was planning a few "October Surprise" moments for Ohio this year. In general, when animal welfare rears its head as a PR issue, animal ag industries don't react with enough vigor. They need to run the bad actors out of town on a rail, so no one (not even "Humane Wayne" Pacelle) can claim that animal abuse is an everyday occurrence on American farms. And above all, livestock farmers and ranchers should demonstrate greater unity in the face of the HSUS and other antagonists. Wouldn't it be great if the next time the HSUS rolled out a heavily spliced piece of video, we saw full-page ads in The New York Times the very next day, signed by 100 of America's biggest

players in the field? The ads could carry the message that "if you attack one of us, you're attacking all of us." Call it a mutual-defense pact. Sort of like NATO.


EI: How can the industry assist the Center for Consumer Freedom in its activities?





DM: We're grateful for as much support as we can attract, including

funding, technical and scientific assistance, and media opportunities. The forces aligned against farmers are well financed, they draw on an immense reservoir of pro bono legal assistance, and they have media savvy staff and volunteers. We get a lot of bang for our buck, but this is still a David vs. Goliath battle. And we're the ones holding the slingshot. **EI**

SALMET®

YOUR PROFESSIONAL PARTNER FOR SUPERIOR POULTRY EQUIPMENT!




SALMET has been manufacturing, since 1961, high performing poultry equipment. The superior quality of the materials used, combined with legendary German precision and craftsmanship, creates a product that guarantees long lasting and reliable performance with minimum maintenance and low energy requirements. Prior to series production all SALMET products undergo extensive field tests of functionality, reliability and efficiency. SALMET is a well known worldwide manufacturer of:

- Rearing cages (for day-old chicks and pullets)
- Layer breeder cages
- Laying cages
- Broiler cages
- Composting units
- Alternative (nest) systems
- Manure drying tunnels

North America:
 Salmel International
 PO Box 177
 Raymond, OH 43067 USA
 PH: (937) 358-2260
 kim.horch@salmel.us

Europe:
 SALMET Poultry Equipment B.V.
 Rijksstraatweg 324D III
 NL-2242 AB Wassenaar
 The Netherlands
 office@nl.salmel.com

www.salmel.com



Egg prices down from 2009

The ex farm egg price increases to 42.2 cents per dozen in May.

Maro Ibarburu, program manager for the Egg Industry Center located at Iowa State University released the May-June Statistical Report on July 1.

The current report is summarized for readers of *Egg Industry*.

✓ The U.S. estimated cost of production for June 2010 was 57.0 cents per dozen *ex farm*, 0.8 cents per dozen less than the previous month. The six-month average production cost for 2010 attained 58.4 cents per dozen, 1.9 cents per dozen (3.2%) less than the 59.7 cents per dozen

recorded during the first six months of 2009.

✓ The June *ex farm* egg price estimated by the USDA-NASS was 42.2 cents per dozen, compared to 38.6 cents per dozen for May 2010 and a six-month average of 70.0 cents per dozen for 2010 to date.

✓ The margin represented by “income minus cost” for June was -14.8 cents per dozen continuing the negative trend from May at -12.5 cents per dozen. For the first six months of 2010 the average margin was 12.2 cents per dozen. The June margin

was 10.3 cents per dozen below the equivalent value in June 2010.

✓ In evaluating the low margin for June it was noted that feed cost was 33.8 cents per dozen, with pullet depreciation at 8.5 cents per dozen and other fixed and variable costs of 14.7 cents per dozen, applying the standard cost factors used by the EIC. These values remained virtually unchanged through the first six months of 2010. Contribution per hen, based on June figures remained negative at -27.3 cents per bird which followed the -26.1 cents per bird value in June.

Smart Solutions



360 Dozen Egg Cart

- Available with Zinc Plated or Stainless Steel Shelves
- 5" Phenolic Casters
- Rust Resistant finish

Model 22-118



240 Dozen Egg Cart

- All Zinc Plated
- 5" Phenolic Casters
- Name Plates available

Model 22-120





Cart-Mart
A Division of Matco Distributors, Inc.

America's Leading Supplier of Material Handling Equipment

Serving planet Earth for over 65 years

Contact Bob Grimm for details.
1-877-332-9898 or 219-531-8787
fax: 219-531-8747
rgrimmsr@comcast.net
www.martforcarts.com

Innovative Compost Systems From Farmer Automatic!

COMPOSTCAT™

- 57hp Duetz Diesel Turbo Charged Engine
- 5mph Tracks w/Piston Drive Motors
- Flow Thru Drag Chain Conveyor
- Industrial Duty Hydraulic Pump
- Rugged Steel Construction & Epoxy Paint Finish
- Skid Steering
- Industrial Duty Oil Filtration
- Second Beater Auger



New technology for better performance and reliability

COMPOST-A-MATIC

Automated In-Vessel Compost System

The cost-effective way to convert manure into pathogen-free compost!



- In-vessel, agitated bed design
- Automatic & computerized operation
- Reduces ammonia & foul odors
- Proven performance with installations worldwide

Resolving Tomorrow's Issues Today!
"Our Innovation Is Your Success!"



Farmer Automatic
OF AMERICA, INC.

P.O. Box 39 • Register, GA 30452
(912) 681-2763
Fax (912) 681-1096
www.farmerautomatic.com
Email: fa@farmerautomatic.com

The cumulative six-month hen contribution now stands at 137.4 cents per bird.

- ✓The Urner Barry (UB) simple average price for six U.S. regions, assuming 80% large eggs, was 44.3 cents per dozen for June compared to 45.7 cents per dozen in May 2010. The six-month simple average UB price was 69.3 cents per dozen.
- ✓In reviewing retail prices for table eggs, the Bureau of Labor Statistics and the Department of Commerce estimated a May average of 152.3 cents per dozen, 14.3% lower than the April 2010 value of 177.9 cents per dozen but almost equivalent to the 150.1 cents per dozen recorded in May 2009. The simple average retail egg price for the first five months of 2010 was 175.7 cents per dozen.
- ✓The large- to medium-grade white egg price spread over six regions was 17.0 cents in June compared to 10.8 cents per dozen in May with an average of 17.5 cents per dozen for the

first six months of 2010. Regional spreads ranged from 14.7 cents per dozen in the Midwest to 20.0 cents per dozen in the South Central region.

- ✓During June 2010, layer feed averaged \$197.80 per ton, which is 1.4% lower than the six-month average of \$200.60 per ton based on six regions. During June the price range among regions was \$173.60 per ton in the Midwest rising to \$219.40 per ton in California. The differential of \$45.80 is equivalent to 7.8 cents per dozen applying realistic industry production parameters.
- ✓For the first five months of 2010, commercial-pullet strain eggs in incubators have remained almost constant at 39.29 million compared to 2009. Straight run hatch for May increased by 5.7% over the corresponding month in 2009. As of May 1, egg-type pullet hatch decreased by 9.3% over April 2010 to 21.537 million.

- ✓Projections for pullets to be housed in future months based on the five months-previous hatch and incorporating a 5% mortality factor, include a range in the increase in placements from 15.75 million pullets in April to 21.44 million pullets in September 2010. The 10-month average of 18.2 million pullets per month for 2010 is 6.3% greater (1.11 million pullets) than the 10-month average of 17.11 million per month for 2009. The 2005 to 2009 monthly average was 16.6 million pullets placed each month.
- ✓The EIC projects an Urner-Barry Large Midwest price of 84.8 cents/dozen for July with prices in November and December attaining approximately 110.0 cents per dozen. **EI**

Egg Industry is indebted to Don Bell and Maro Ibarburu for the collection and presentation of detailed data which form the basis of this summary.

SANOVO STAALKAT

Lift Your Profits

with a new SANOVO Egg Breaker and STAALKAT Grader



www.sanovogroup.com

STAALKAT Graders, Farmpackers and Hatchery Packers will deliver the highest quality final pack for your egg markets. We have a world of experience with superior results that will help grow your business.

The SANOVO loaders, egg breakers, pasteurizing systems and spray driers will deliver the highest yields, best functional product properties with the highest quality extended shelf life in the industry.

SANOVO 
TECHNOLOGY GROUP

Sanovo Technology - Staalkat International - Sanovo Process Solutions - Rame-Hart - FoodCraft - Sanovo Environmental Solutions

Midwest Foods' Brickland Hatchery

Brickland Hatchery set to supply the MFA with Shaver White and ISA Brown strains.

By Simon M. Shane

The Midwest Foods Association, founded in 1975 as a buying cooperative, has standardized on the New Shaver white-feathered strain for their sixteen members. According to Bruce Lackey, general manager of the MFA, the decision was made on the basis of anticipated performance of the strain which was extensively modified in 2005. Traits which are considered to be of importance to the membership include high egg yield per pullet housed, acceptable shell quality, efficient feed conversion and good livability.

Brickland Hatchery will serve as the production center for both Shaver White and ISA Brown strain hens. Parent stock will be supplied by Hendrix Genetics in Canada. The unit located in Blackstone, Va., has been in operation since the 1940s originally as Clay's Hatchery and then subsequently under the Brickland name. The facility was mothballed into 2002 due to decreased demand for the strains which were then available. In October 2003, the MFA purchased the hatchery which was extensively renovated, upgraded and expanded.

The hatchery operates under the corpo-

rate entity of Midwest Farms LLC. Currently, the company owns and operates two parent breeder farms but has a number of contractors in Virginia and Pennsylvania. Pullet chicks are distributed to all of the MFA members extending from Texas in the South to upper New York State in the North with the bulk of deliveries to Midwest states. Current output is in the region of 12 million pullet chicks per year. The 28 Chick Master multistage setters retrofitted with Genesis™ controls have a capacity for up to 18 million pullets per year.

The Virginia breeding operation and hatchery is under the management of Neal Martin, a VPI graduate and second generation manager of the Brickland facility, following in the footsteps of his father, C. J. Martin. Hatchery manager Luis Soto has been involved in incubation since 1985 and has been affiliated with Brickland since an expansion completed in 1994.

Despite successive additions, the hatchery has a logical and uninterrupted product flow with setters and hatchers in two wings on either side of a central service core. This arrangement allows separate transfer,

take off and complete decontamination of the two hatching bays. New facilities under construction include an extensive egg store. Future projects will encompass

Read a geneticist's perspective on traits for a sustainable future.

www.WATTAgNet.com/6736.html

new biosecurity facilities, workers' change rooms and other installations contributing to hygiene and efficient operation.

Chick handling includes a carousel for sexing and five Nova-Tech™ modules for beak treatment and subcutaneous vaccination. Separate cabinet vaccinators are available to administer coccidiosis vaccines in addition to aerosol IB/ND vaccines as required by members of the MFA.

Parent farms are serviced by Margaret Coates, a graduate of North Carolina State, with extensive experience in breeder flock management. Both pullet and laying diets fed to parent stock are formulated to exclude animal protein and are supplemented with vitamins and micronutrients to optimize hatchability and chick viability. **EI**



Chick quality is a primary concern. Batches are examined by Neal Martin, vice president of operations (left) and Luis Soto, hatchery manager (right), at Brickland Hatchery in Blackstone, Va.



Interior view of the chick processing room showing feather sexing in progress (background) and beak treatment using Nova-Tech™ installations (foreground) at Brickland Hatchery.



Chick quality and hygiene are important considerations as product is shipped to the Midwest and Texas. Delivery trucks at Brickland Hatchery are decontaminated between trips.

Munters Corp. Aerotech Vortex exhaust fans



Munters Corp. offers the Aerotech Vortex 14-, 16-, 18- and 24-inch exhaust fans. These fans have variable speed and direct drive, plus fiberglass housing and a gel-coat exterior. Other features include cast aluminum airfoil propellers with stall-limiting design and two plastic shutter styles.

Munters Corp.
www.munters.us/aerotech

DSM Food Specialties Maxapal GO4

DSM Food Specialties offers Maxapal GO4. This enzyme is designed to remove sugar from liquid egg-whites, whole eggs and egg yolks

before spray drying. It is a liquid that comes packaged in a 20 kg plastic drum. Since the enzyme is derived through fermentative processes, it is kosher and halal certified.

DSM Food Specialties
www.dsm-foodspecialties.com

DBK 2000



Precision Beak Trimming

- trim 2 birds at a time
- up to 2,000 birds per hour per two man team
- accurately control cauterization time and temperature
- accurately control chick count per cage
- ability to remove cage liners at time of beak trimming
- ability to separate chicks with accurate chick count at time of beak trimming
- operator comfort through air ride seat

From Baer Systems, Inc.

Amos Baer 28802 40th Ave S Lake Park, MN 56554
 Tel: 218-937-5357 Fax: 218-937-5170 baersden@rrt.net

Try it for Free.

We'll send you sample Ziggity Max8 drinkers for your cage system, so you can see improved commercial layer performance and drier pits for yourself!

MAX8 DRINKERS

We're making this bold offer because we know the revolutionary Max8 works! A completely new drinker, the Max8 was designed exclusively for layers. It has many unique features that help deliver the water volume layers need without over supply. This results in drier pits, preventing harmful ammonia releases which could hurt egg production and diminish the welfare of your birds. It also helps reduce costly insect and rodent problems.

Max8 drinkers are easy to retrofit on your existing cage system. Contact your Ziggity distributor to arrange for your **FREE** Max8 drinker samples.



Twin Lock Max8 for Ziggity systems.

J-Lock Aktive Max8 easily upgrades most brands of watering systems.



Tel: + 1 574.825.5849 • www.ziggity.com

The Poultry Watering Specialists

INDUSTRY NEWS

Cal-Maine Foods posts Q4 and FY 2010 results

For the 52 weeks ended May 29, Cal-Maine Foods Inc. posted a net income of \$67.8 million compared with \$79.5 million, a 14.6% decline compared with FY 2009. Earnings per share declined 14.9% from \$3.34 to \$2.85 for FY 2010.

Net sales attained \$910.1 million, 22% less than the \$928.8 million achieved in FY 2009. During FY 2010 Cal-Maine Foods sold 805,399 million dozen (777,885 million dozen FY 2009), of which 79% was derived from Company flocks compared to 77% in the previous year. Net average unit revenue was \$108/dozen compared to a 5% decline from \$1.14 in 2009. Spe-

cialty egg sales increased by 4.3% to represent 14.4% of sales compared to 13.8% in 2009 and generated 21.4% of revenue. From the data presented, generic eggs were sold at an average of \$1.03/dozen compared to \$1.68/dozen for specialty eggs including Egglord's Best, Farmhouse and 4-Grain Brands.

The company generated a gross margin of 21.4%, compared to the 22% margin in 2009. In reviewing the Cal-Maine balance sheet, it is noted that the current ratio improved from a ratio of 2.3 to 3.2 denoting a stronger asset base relative to current liabilities. Long-term debt was reduced by 9.7% to \$104.7 million and shareholder's equity increased by 13% to \$377 million from the previous fiscal year.

Taiwan study implicates free-range eggs

In a comparative study conducted by J.F. Hsu, C. Chen and P.C. Liao in Taiwan, scientists demonstrated significant levels of polychlorinated dibenzo-b-dioxins and dibenzofurans (dioxins) in eggs collected from free-range flocks. An average level of 1.79 ppb was recorded in the free-range eggs with levels ranging from 1.8 to 5.5 ppb. In contrast, a level of 0.3 ppb was determined in eggs derived from caged flocks with minimal variation suggesting that this level may in fact be a threshold.

Free-range hens are susceptible to ingesting toxins in soil. In contrast, caged hens which are housed in environmentally controlled buildings are protected from this contamination. **E**

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 \$130 per inch per insertion (1-time rate), \$120 per inch per insertion (6-time rate), and \$110 per inch per insertion (12-time rate). The production charge is included except for ads with excessive make-up demands.

For more information on how to place your ad, contact:

Ginny Stadel
Tel: 815-966-5591
Fax: 815-968-0941
E-mail: gstadel@wattnet.net

WANTED:

Poultry Farm Manager for a Midwest million bird pullet and layer operation. Duties include farm performance, supervising farm employees, record keeping and compliance with government and industry regulations and standards. Please submit application to poultrymanager@wattnet.net.

Used Diamond Equipment

Graders, loaders, packers, etc.

Buy — Sell — Nationwide

Former Diamond Regional Sales Manager
New replacement parts are also available.

Contact Matt Poole: 804-387-6602

mpoole3447@yahoo.com

Check out our new website at:

www.internationaleggmarketers.com



CO2 MAK cart.
Approved by UEP
for disposal of
spent fowl.



FPM Inc.
Poultry carts & trailers
Ph. 402-729-2264
www.fpmne.com

Egg Industry

CUSTOM REPRINTS

FIND PROFIT IN YOUR EDITORIAL EXPOSURE.

Custom reprint products of articles and features from *Egg Industry* create powerful marketing tools that serve as instantly credible endorsements.

For additional information, please contact Foster Printing Service, the official reprint provider for *Egg Industry*.

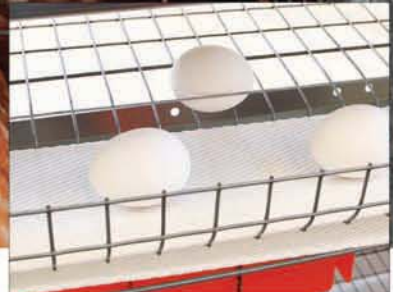
Call 866.879.9144
or sales@fosterprinting.com

FOSTER

PRINTING SERVICE



AVECH™



Egg Saver Wire and Wider Egg Belt (4.5")



Easy Access Doors Nest Curtain Litter Mat



Chain Feeding Perches



Flexible Auger Scratch Pad

ADAPTABLE VERSATILE ENRICHED COLONY HOUSING

With the AVECH (AVEK) Enriched Colony Housing System you can rest easy knowing it's the only system with the Seal Of Approval from American Humane Association.

The AVECH is designed to meet and adapt to the complexities of the different markets you serve, and the continued regulatory changes your business faces.



With millions of birds living in these systems throughout the world, and with the Seal Of Approval from American Humane Association, you can be confident in the proven performance, reliability and industry acceptance of the AVECH system.

Contact a Big Dutchman representative to learn more, or go to www.bigdutchmanusa.com



Big Dutchman.
Innovation Breeds Success

Making a world of difference one client at a time.
+1 616 392 5981 • e-mail bigd@bigdutchmanusa.com
www.bigdutchmanusa.com



**IT'S TIME TO COMPARE APPLES TO APPLES
CONFUSED ABOUT PHYTASE? LET US SET THE RECORD STRAIGHT**



DSM Nutritional Products
1 (800) 526 0189
www.unlimitednutrition-na.dsm.com
RP2010A Copyright ©2009 All rights reserved.

There are plenty of phytase choices in the market, each trying to break through the clutter by introducing a unique “benefit” that may not be any benefit to you at all. At DSM we’ve decided to level the playing field. The bottom line: when comparing phytase sources, all that matters is the cost of grams of product form to release equivalent amounts of phosphorus. You can learn more about how to evaluate phytase by going to www.phytasefacts.com.

Unlimited. DSM

Egg Industry

115th ANNIVERSARY
WATT
News for the Egg Industry Worldwide

Your leading agribusiness resource

WATTAgNet.com

Inside

- 3 Editorial by Dr. Simon M. Shane
- 4 Producers have a choice among strains
- 6 Trends in breeding layer hens
- 8 Current health of U.S. egg production flocks
- 12 The moving force behind HumaneWatch.org
- 14 Egg prices down from 2009
- 16 Midwest Foods' Brickland Hatchery
- 17 Products
- 18 News
- 18 Marketplace

p4

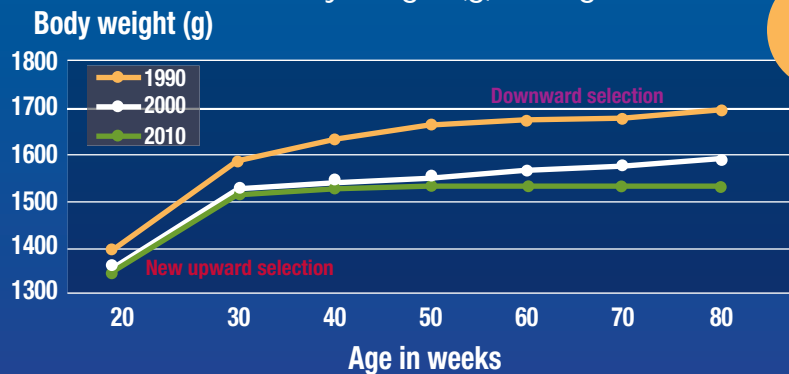
Producers have a choice among strains



Global poultry companies offer range of breeds.

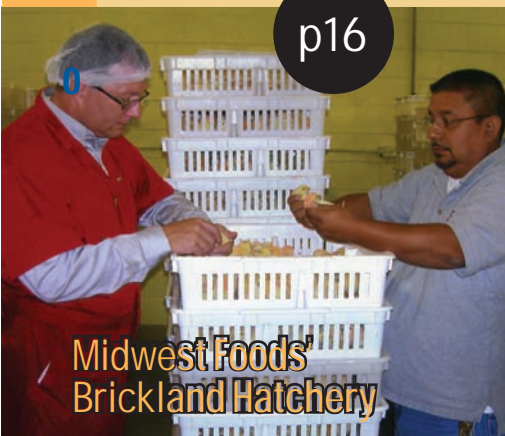
p6

W36 Body weight (g) changes



Current top goal in the industry is to increase immature pullet weight.

p16



Midwest Foods' Brickland Hatchery

Brickland Hatchery set to supply Shaver White and ISA Brown strains.

Specht

QUALITY WORLDWIDE



• Drinking system



• Feeding system



• Group cage system



• Cage floor



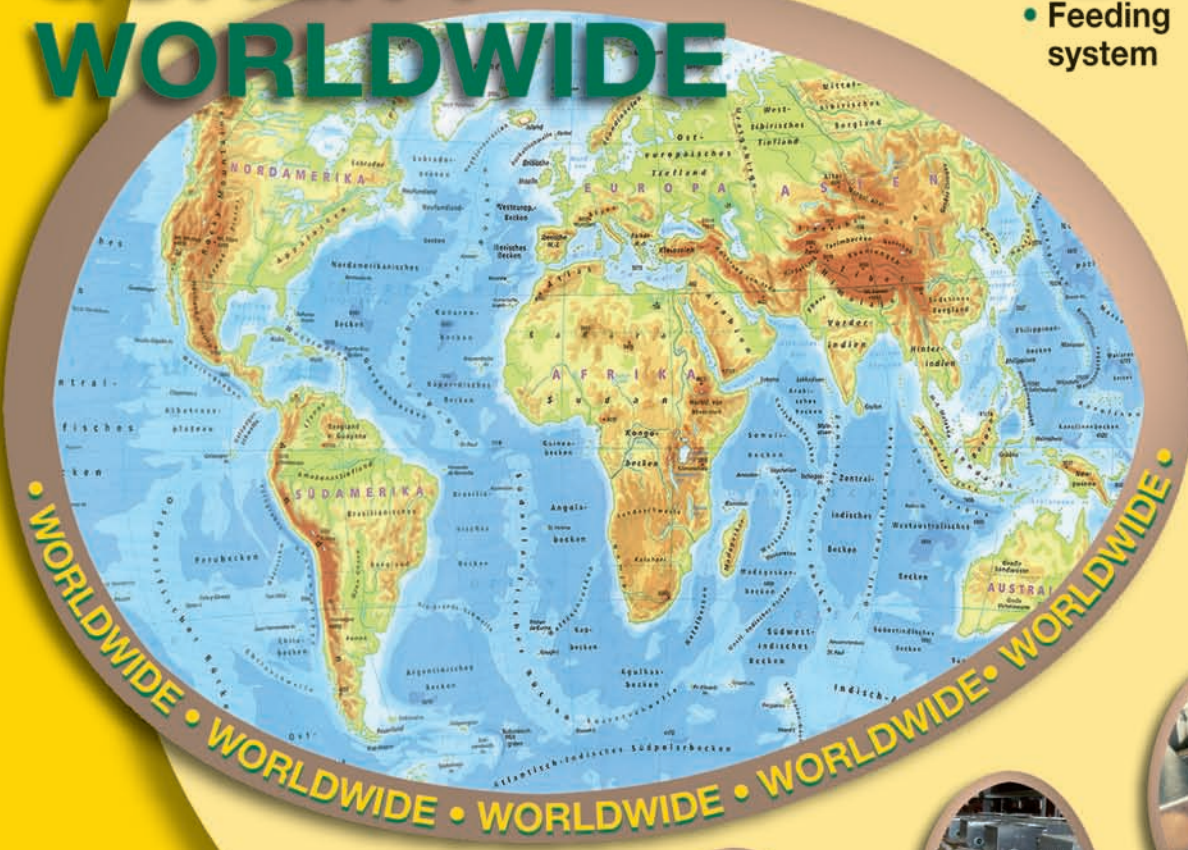
• Egg belt



• Egg collecting system



• Manure drying system



ORIGINAL
Specht
POULTRY EQUIPMENT

Poultry Equipment · Equipment Avicole



Ten Elsen GmbH & Co. KG

Dassendaler Weg 13 • D-47665 Sonsbeck (Germany)
Telefon +49 (0) 28 38 912-0 • Telefax +49 (0) 28 38 27 91
Ten_Elsen@t-online.de • www.specht-tenelsen.de



EDITORIAL

BY DR. SIMON M. SHANE

Breeds, genes and disease

Egg Industry reviews the current status of poultry breeding

Breeding is the focus of the August 2010 edition of *Egg Industry*. During the past decade, a succession of mergers and acquisitions has narrowed the range of suppliers of commercial level stock to two primary breeding companies each with multinational scope. This is a reflection of the high cost and technical complexity of maintaining progress



Simon M. Shane

in diverse genetic traits which contribute to profit. Fortunately, the major breeders have seen fit to preserve the bloodlines they obtained and are able to supply branded strains of both brown and white-feathered stock to satisfy the needs of franchise hatcheries, distributors and producers as noted in the overview.

Advances in genetic selection are explained by Dr. Neil P. O'Sullivan with special emphasis on biotechnology as an adjunct to traditional phenotypic selection. The current disease situation is described by Dr. Kenton S. Kreager with reference to preventive strategies to maximize performance. It is recognized that

challenge by infectious agents, improper nutrition, toxins, climatic extremes and deviations from optimal management all detract from the inherent genotype of available egg-producing strains.

During the past month, there have been a number of events which will influence the future of the industry. The apparent resolution of the anticipated 2010 ballot in Ohio, passage of legislation to limit import of eggs into California other than from housing in compliance with Proposition 2 and the initiation of the FDA Final Rule on suppression of SE will affect all producers. These events are reviewed with appropriate commentary. Responses in support or disagreeing with the editorial opinions expressed in *Egg Industry* are welcome.

It is hoped that the unseasonably hot weather has not materially affected production either in livability of flocks or quality of product. Grain yields will most likely be affected by weather patterns, which will inevitably result in elevated feed costs. Fortunately, stability in feed price over the past few months as documented in industry statistics has reduced the impact of the seasonal post-Easter depression in revenue for generic eggs.

Simon

sshane@wattnet.net

Egg Industry

www.WATTAgNet.com

CORPORATE HEADQUARTERS

WATT

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

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: Simon M Shane
sshane@wattnet.net Tel: +1 919 806 8695

COPY DESK TEAM

Managing Content Editor: Ken Jennison

Community Manager/
SEO Editor: Kathleen McLaughlin

Senior Content Editor: Tara Leitner
Associate Editor: Andrea Saladino

Associate Editor: Kayla Kling

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
Sue Snyder, ssnyder@wattnet.net
Tel: +1 815 966 5523; Fax: +1 815 968 0941
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, spanje@xs4all.nl
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

To order reprints contact FosteReprints
+866 879 9144 www.fosterprinting.com.

SUBSCRIPTION INQUIRIES / CHANGE OF ADDRESS:
www.WATTAgNet.com or contact customer service at +1.800.869.6882 or +1.763.746.2792. Business and occupation information must accompany each subscription order. Single copy price US\$14.00 unless otherwise marked. Change of address: Give both old and new address when reporting change of address to EGGI@KMPSGROUP.COM or fax to +1.866.658.6156

POSTMASTER: Please send change of address to KMPS, 15301 Highway 55, Suite #3A, Plymouth, MN 55447 Periodicals postage paid at Rockford, IL, USA and additional post offices.

© Copyright 2010 WATT Publishing Co. All rights reserved. EGG INDUSTRY (ISSN 0032-5805) is published monthly by WATT, 303 N Main St Ste 500 Rockford, IL, 61101 USA. All rights reserved. Reproduction in whole or in part without written permission from the publisher is strictly prohibited. Egg Industry and its logos are registered trademarks of WATT Publishing Co.



WATTAgNet: News feeds from around the world.
The latest animal agribusiness, poultry, nutrition and pig news.
www.WATTAgNet.com

Producers have a choice among strains

Global poultry companies offer range of breeds.

By Simon M. Shane

U.S. egg producers have a wider selection of strains although these are supplied by two dominant primary breeders. Consolidation within the industry over the past twenty years has resulted in the demise of a number of independents both in the U.S. and Europe. Fortunately, the large companies, which acquired their smaller competitors, retained their gene pools and judiciously incorporated beneficial traits into their programs.

Hy-Line International

Hy-Line International is a subsidiary of Lohmann Tierzucht (Lohmann Breeding Company) of Germany. The holding company recently celebrated its 50th anniversary and has attained the status of a major world force in poultry breeding in both egg and broiler segments. Hy-Line International, the U.S. company, operates an independent breeding program, but the technical resources of the parent company are combined in some joint projects which have mutually beneficial advantages to all stakeholders.

edge genetic technology, maximization of disease control and partnering with the industry with respect to selecting and evaluating performance and strain characteristics. Their product profile consists of the Hy-Line W-36 white egg strain, the Hy-Line brown egg strain and the Hy-Line W-98, which is selected for optimal egg mass.

Hendrix Genetics

Hendrix Genetics is a multi-species breeder of egg production strains, turkeys and swine, with headquarters in Holland. The company has expanded its operations since re-acquiring the breeding business previously operated by Nutreco, with a current portfolio of brands including ISA of France and DeKalb, Shaver and Babcock of the U.S. Currently the company operates primary breeding programs for egg production strains in the Netherlands, France and Canada.

Hendrix Genetics has centralized operations in Canada for North and Central America, Japan, New Zealand and other

their area of operations. These include the Midwest Food Association, Morris Hatchery in Georgia, West Wind Farms in New York and Merrill Farms in Idaho, among others.

The situation with regard to the current Hendrix Genetics strains in North America has been recently rationalized. Midwest Foods Association, a cooperative purchasing group, operates parent stock farms and makes use of company farms and contractors to produce Shaver and ISA brown commercial chicks hatched and distributed from Midwest Farms located in Blackstone, Va. Centurion Poultry operates parent stock under the Bovans white and brown strains, white egg strain and the Amberlink brown egg strain in DeKalb, Texas.

Challenges facing primary breeders

The major traits of concern to the industry are incorporated into sophisticated selection programs, which weight attributes to, such as egg numbers, livability, feed conversion efficiency, shell and internal quality, egg mass and yield. Changes in the structure of the industry also require attention to less heritable characteristics including behavior, adaptability to floor and cage systems, use of nests, pullet weight gain and conformation, retention of plumage and the ability to efficiently convert critical amino acids in feed into eggs.

In addition to conventional index selection, geneticists are now applying

More on genetics: "Feed Efficiency from a Breeding and Genetic Viewpoint." www.WATTAgNet.com/5148.html

Lohmann and its U.S. subsidiary base their activities on three pillars which comprise of the application of cutting

nations of the Pacific Rim. Parent stock chicks are distributed from Ontario to affiliated hatcheries and customers in

molecular biology to identify individuals, families and lines with desired characteristics. Application of SNIP (single nucleotide polymorphism) analyses is contributing to an advance in the rate of selection for desirable characteristics. Both major breeding companies have extensive in-house and cooperative programs with universities and research institutions.

Based on the reality that 30% of eggs produced in the U.S. are broken for further processing, breeders are attempting to address the needs of this significant segment of the market. It is possible that

duction, yield and quality characteristics.

All breeders maintain cooperative evaluation programs with selected representative producers. New strains are tested under field conditions and the results are correlated with data from controlled studies. This ensures that both beneficial and adverse traits can be quantified in the field using large flocks under diverse climatic and housing conditions before general release.

It is axiomatic that the genetic potential of available breeders is seldom achieved under commercial conditions. Restraints

from optimal production. The technical service activities of the primary breeders are extended to producers in an attempt to bridge the gap between genotype and phenotype. This is constantly narrowing even as genetic progress is made.

Conclusion

The primary breeders have a considerable investment in personnel, facilities and equipment. It is necessary to commit resources and establish parameters for a selection program at least four years in advance of marketing commercial level stock.

Geneticists have to integrate advanced science, practical selection and forecasts of consumer trends in making decisions which may represent the difference between commercial acceptance or relegation to a non-viable status. The complexity and cost associated with breeding relative to the return in a competitive environment has been the major driver for consolidation and acquisition. E1

The major traits of concern to the industry are ... egg numbers, livability, feed conversion efficiency, shell and internal quality, egg mass and yield.

within five to ten years specific strains will be developed to satisfy the requirements for breaking with respect to pro-

duced by disease challenge, housing, nutrition, climatic extremes, parasites and management deficiencies all detract

A Balanced Immune System:

ORIGINAL
XPC™

UNIQUE NUTRITIONAL METABOLITES



It's What All Poultry Need.

Intestinal function determines bird health and performance. Our unique nutritional metabolites support robust digestive health. How? By balancing gut microbiota, gut morphology and the immune response. You can measure the value of Original XPC™ in three ways:

PRODUCTION PERFORMANCE | FEED EFFICIENCY | OVERALL FLOCK HEALTH

In poultry research trials*, feeding all-natural, science-based Original XPC™ consistently proved to be the healthy decision.

*Data available at www.diamondv.com or 1-800-373-7234.
©2010 Diamond V Mills, Inc. All rights reserved.
Diamond V® is a registered trademark and Original XPC™ is a trademark of Diamond V Mills, Inc.

 **Diamond V®**
Research Tested. Performance Proven.™

For more information call 800-373-7234 or visit www.diamondv.com

Trends in breeding layer hens

Current goal is to increase pullet weight.

By Dr. Neil P. O'Sullivan



Hens have the lowest carbon footprint of all farm animals with 2.1 lbs. of carbon used to produce 1.0 lb. of eggs.

Annualized Genetic Gain

Trait	Hy-Line Brown	Hy-Line W36
Age @ 50% Pr	0.6	0.7
Livability in Lay	0.2%	0.1%
Livability in Grow	0.04%	0.05%
HH Eggs	2.5	2.3
First Egg Weight	0.25g	0.20g
Egg Weight @ 26 W	0.10g	0.15g
Egg Weight @ 56 W	0.00g	0.01g
Shell Strength	4g	5g
Haugh Units	0.6	0.6
Body Weight @ 20 W	25g	20g
Feed Conversion	1.3%	1.2%

After many generations of selection, breeders have now developed layers which mature at a young age. The rate in advancing onset of sexual maturity corresponds to a half day earlier each year. Changes in egg weight from initial production to maturity have increased by as much as 0.35 g. per year.

The first egg which once weighed 40 g. now weighs 47 g., and a mature 60 g. egg weight (47.5 lb. case weight) is now attained between 30 and 36 weeks of age. This has all happened while mature body weights have been declining. Mature weight of Leghorn strains has decreased by 5 to 15 g. per generation, but this has had a negative influence on the weight of immature pullets.

Breeders have now adopted quantitative

ing mature hen size. This will enable the mature flocks to have low maintenance costs. The immature pullet will be able to achieve the needed body size to enter production at the correct age and weight to maintain high levels of peak production and persistence.

Pullets are now subjected to more intensive vaccination programs which impose stress and divert nutrients from accretion of body mass to developing an immune response. As pullets are prepared for cage-free egg production, demands on muscle development are very high.

This requires the selection of more robust pullets which then enter lay and continue growing to 32 weeks of age.

Increasing performance, wellbeing

Geneticists are continuing in their efforts to achieve improvements in both performance and wellbeing. Some of the considerations in contemporary selection programs include:

- ✓Upgrading flock wellbeing through enhanced livability;
- ✓Improved social interactions within the flock, for both non-confined and caged egg hens;
- ✓Selection for improved feather cover; and
- ✓Appropriate nest egg laying behavior.

All of these traits are characterized by moderate to low but sustainable rates of progress.

Currently, commercial hens have the lowest carbon footprint of all farm animals with 2.1 lbs. of carbon used to produce 1.0 lb. of eggs. The rate of improvement in feed conversion has attained a consistent improvement of 1.3% per annum.

More efficient feed conversion is due to consistent advances in rates of lay, egg mass produced, lower adult maintenance cost, better feather cover, and superior egg quality. This translates into a higher percentage of eggs, which are marketable for each successive generation.

Dr. Neil P. O'Sullivan is Director of Research and Development for Hy-Line International.

Read about common issues in layer pullet care.

www.WATTAgNet.com/8490.html

methods which allow the body weight curve of hens to be described statistically. One way to do this is to use random regression models, which have been applied to changing the shape of the curve in egg weight in breeding programs for many years.

The goal of breeders today is to increase immature pullet weight. Targets at Hy-Line are to increase pullet weight by 5 to 20 g. while controlling or still lower-

**BALANCED
FROM THE INSIDE OUT**

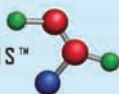


CloSTAT® ACTIVE MICROBIAL
For ideal gastrointestinal balance

CloSTAT supports the population of beneficial bacteria while maintaining microbial balance in the digestive tract.



INSPIRED MOLECULAR SOLUTIONS™



WWW.KEMINCLOSTAT.COM

Current health of U.S. egg production flocks

A review of top diseases, including *E. coli*, infectious laryngotracheitis and focal duodenal necrosis.

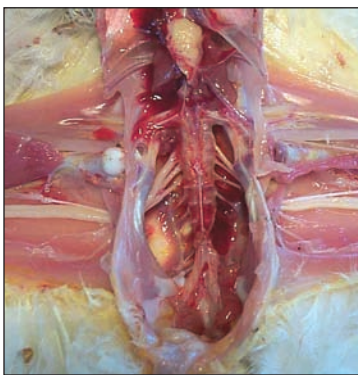
By Kenton S. Kreager, DVM, ACPV



Paralysis from Marek's disease.



Trachea showing inflammation of the mucosa and the presence of exudate, characteristic of ILT.



Sciatic nerve tumors.

The U.S. egg production industry is enjoying a period of relative calm regarding health and infectious disease. We are fortunate that neither the Asian H5N1 avian influenza nor the H1N1 human influenza pandemic were ever introduced into the U.S. poultry industry. There are no current influenza issues and accordingly routine vaccination against influenza is unnecessary.

It is also fortunate that what appeared to be an introduction of very virulent IBD in the U.S. in early 2009 has not extended beyond the index area as was initially feared. There are no other prevalent disease issues causing serious mortality or production losses for the majority of egg producers.

Routine vaccinations are used by most U.S. producers against Marek's disease, IBD (Gumboro), Newcastle, bronchitis, AE and pox. Depending on farm history and location, other vaccinations may include ILT, MG, *E. coli*, coccidiosis and coryza. Layer mortality should generally remain at less than 0.12% per week throughout most of the production cycle. In older flocks, physical vent injury (prolapse, cannibalism, difficulty passing large eggs) can raise mortality rates to a range of 0.15% to 0.20% per week. Routine postmortem examinations and laboratory investigations are recommended to ascertain causes of mortality, especially when loss rate exceeds the normal range.

***E. coli* peritonitis**

For many years, the layer industry has considered *E. coli* peritonitis as the most challenging cause of mortality. The characteristic lesion is either an accumulation of wet yolk-like material with acute mortality or a caseous deposit of exudate on the viscera of the body cavity in chronic cases. Bacterial cultures from fresh dead birds will reveal contamination with *E. coli* bacteria.

Mortality tends to occur at two peaks during the production cycle. The first is in early production, around peak, and the second appears later in lay, typically after 50 weeks of age. Early-lay peritonitis is often associ-

ated with respiratory diseases occurring shortly after housing in multi-age complexes. These include mycoplasmosis (MG or MS) and bronchitis, which have become endemic in large layer complexes and induce respiratory stress shortly after housing. This can easily be demonstrated by serology and confirming mycoplasma seroconversion or an increase in bronchitis titer.

Poor air quality contributes to the respiratory challenges and high levels of dust and ammonia exacerbate the condition. Peritonitis at a later stage in the cycle is more often associated with vent-related trauma (prolapse and cannibalism) that the hen initially survived, but resulted in an ascending infection of the oviduct to the ovary and then extension to surrounding organs.

Peritonitis can be a frustrating disease to control because it is usually a secondary infection to the factors

Watch an interview with Dr. Bruce Calnek on his role in Marek's disease vaccines.

www.WATTAgNet.com/9496.html

discussed above, which are difficult to eliminate from the environment of the flock. Antibiotics can be ameliorative, although restricted in use by FDA rules. The early type of peritonitis is most amenable to antibiotic treatment, and is most successfully treated early in the course of the disease.

Recently, a live genetically-modified gene deleted *E. coli* vaccine was licensed by Fort Dodge Animal Health (now Pfizer Animal Health) that is much easier to administer, provides a good spectrum of cross-protection against multiple types of *E. coli*, and has been commonly adopted by the U.S. layer industry. Most egg producers consider that this vaccine and possibly improved environmental conditions resulting from upgraded ventilation and chlorination of drinking water have

Dr. Kenton S. Kreager is the Senior Technical Service Veterinarian at Hy-Line International.



**Announcing NEW
INNOVAX®-ILT-SB!**

*Provides extended protection against
both ILTV and very virulent MD.*

**Also approved for
in ovo application.**

**A New World of ILT Protection.
Without Reactions.
Now Approved for *In Ovo* Application.**

INNOVAX®-ILT Vaccine



Professional producers know that ILT can have a great impact on time, labor and production costs. And most methods of protection against ILT can present other problems for your flock.

But healthy day-old chicks treated with INNOVAX®-ILT show no adverse reaction to the vaccine. Because INNOVAX-ILT does not use conventional live ILT virus,

the potential for vaccine induced outbreaks is eliminated.

So protect your flock from ILT without adverse reaction. With INNOVAX-ILT.

For more information, contact your Intervet/ Schering-Plough Animal Health sales representative or vaccine distributor.

Visit us on the web at www.intervetusa.com/species/poultry

INNOVAX is property of Intervet International B.V. or affiliated companies or licensors and is protected by copyrights, trademark and other intellectual property laws.
Copyright © 2007, 2009 Intervet International B.V. All rights reserved. 6/09 PO-IN-31956R

innovax
ILT

 **Intervet**
Schering-Plough Animal Health

reduced the incidence rate and severity in their flocks.

Laryngotracheitis

Many unprotected U.S. layer flocks undergo ILT (infectious laryngotracheitis) challenge and therefore it is now a routine to vaccinate with one of several types of available products. ILT can be difficult to distinguish

clinically from the diphtheritic ("wet") form of fowl pox affecting the trachea. Microscopic examination of affected tracheas should always be done to arrive at a firm diagnosis before making significant decisions regarding treatment or vaccination.

Live CEO (chick embryo origin) vaccines have the potential to spread between vaccinated and susceptible birds and regain virulence as they continue to spread among and within flocks. For this reason, if the adminis-

tration of vaccine does not achieve adequate uniformity in protection, there can be excessive post-vaccination reaction and clinical outbreaks will occur.

Safer alternative vaccines include a TC (tissue culture) live product that does not appear to spread and gain virulence (Intervet Schering Plough LT-I-Vax) but a single dose is frequently inferior to CEO vaccines in providing protection against severe challenge.

Two live vectored vaccines, a pox vectored product from CEVA-Biomune (Vectormune FP-LT) and an HVT vector from Intervet Schering Plough (Innovax HVT-LT) are now available. These relatively new vectored products contain only some genes of the ILT virus that have been genetically engineered into the host pox or HVT virus and are therefore completely free from any ILT reaction or potential for reversion and spread.

For optimal protection using these vectored products, the pox or HVT vector vaccine virus should be the first ILT product to be administered and should not be mixed with either pox or HVT viruses as applicable at the same time. The U.S. layer industry has adopted vectored vaccines as a safe and effective alternative for many situations.

Focal duodenal necrosis

FDN (focal duodenal necrosis) is a relatively newly recognized disease in U.S. layers. Lesions are relatively minor compared to some other types of enteritis and consist of small dark patches (described as looking like a cigarette burn) in the mucosa of the duodenum, the first loop of intestine surrounding the pancreas. Lesions are normally not visible in birds that have died, so representative live birds must be sacrificed and immediately examined for the presence of these gut lesions.

The disease does not seem to cause any mortality, but was initially associated with a reduction in egg size. More recently, some affected flocks have demonstrated substandard rates of egg production.

The cause of this disease has not been clearly identified, but there is suspicion it may be associated with a *Clostridium spp.* infection. Antibiotics such as tylosin and bacitracin are effective in treating the disease, and some work suggests that competitive exclusion products or combinations of pre- and probiotics may be effective in preventing or reducing the impact of infection. U.S. egg producers are becoming more aware of this condition and examine flocks when egg size

AJINOMOTO

BREAK THROUGH FEED FORMULATION CONSTRAINTS

ARE YOUR FORMULATION CONSTRAINTS LIMITING PROFITABILITY?

Relax your constraints and stop squeezing profitability. Allow your formulation software to minimize diet costs through the optimal use of L-Lysine and L-Threonine.

To learn more about the effective utilization of Ajinomoto amino acids in your feed, contact us for assistance on setting up your formulations, and for additional data on their economic advantages.

AJINOMOTO HEARTLAND LLC
www.lysine.com • 773.380.7000
ISO 9001:2000 ISO 14001:2004
Ajinomoto® is the registered trademark of Ajinomoto Co. Inc.
Copyright © 2009 Ajinomoto Heartland LLC

or production problems emerge.

Osteomalacia

Soft bones (osteomalacia) are often identified as a cause of mortality, perhaps in just one or a few dead birds when routinely screening mortality. In some cases osteomalacia may be responsible for excessive losses within a flock. Lesions consist of a rubbery, crooked keel bone, often in the shape of an “S”, a collapsed rib cage with enlarged cartilage joints, and weak, easily broken long bones (the head of femur breaks off when disarticulating the hip joint).

It is clear that affected flocks show decreased mineralization of bones but post-mortem examination cannot distinguish among calcium, phosphorus, or vitamin D3 deficiency as possible causes. If calcium or vitamin D3 are the predominant deficiencies egg shells are poorly mineralized and are thin.

It is also unknown why some hens become so severely affected that reabsorption of mineral from the spinal column and legs results in paresis progressing to paralysis and recumbency, followed by death from dehydration. This may occur while the bulk of the flock is totally unaffected. Most nutrient needs of layers are expressed in grams/bird/day and vary by breed and age of the flock.

By accurately measuring the feed intake of a flock, the percentage of each nutrient needed in the feed can be calculated. For example, if we accept the Hy-Line W-36 Management Guide recommendation that a 26-week-old flock should consume 4.0 gm of calcium per hen per day, and we know the flock is consuming 20 lbs/100/day (91 gm/bird/day), the feed should contain 4.4% calcium (4.0/91x100) in order to meet required daily intake. This approach should be applied to all the major nutrients as outlined in the breeders' management guides.

When an unusual incidence of soft bones is observed among mortality, the levels of calcium, phosphorus, and vitamin D3 in the diet should be examined with appropriate assay to confirm accuracy of mixing and conformity to formulas. Water quality should be assayed with special reference to pH, hardness and electrolyte content in comparison to accepted standards.

Marek's disease

Prior to the 1980s, Marek's disease (MD) would have been considered the principal disease problem in the U.S. layer industry. At

present, MD is fortunately well controlled. Most of the current success can probably be attributed to the effective vaccine protection provided by the Rispens CVI-988 vaccine that most U.S. egg producers now use. This Type-1 MD vaccine has been shown in Hy-Line challenge trials to provide much better protection than the previously used HVT/SB-1 vaccine combination.

Vaccine alone does not provide complete protection to prevent future clinical emergence of MD infection. Early exposure before immunity is established is a cause of “breaks” and all-in-all-out placement is advised in areas with a high potential for challenge with virulent strains of MD.

The field virus has previously shown the ability to adapt to HVT vaccines and eventually become resistant leading to increasing frequency of field outbreaks. It is hoped that will not happen with Rispens vaccine, but the industry has to be ready in the event of the emergence of new and more virulent strains.

Research will likely lead to the next generation of improved Marek's vaccines, but good flock management to limit the cycling of this virus between susceptible chicks that are not yet immune and older pullets or layers that are likely shedding the virus.

Suppression of the Marek's virus relies on a functional immune system, which must be protected against damage caused by IBD (Gumboro) or CAV (chick anemia virus). Thorough cleaning and disinfection of brooder houses will allow young flocks to establish vaccine-induced immunity to Marek's and IBD before there is significant field challenge.

Deficiencies in basic management and biosecurity will lead to a cascade of disease events and result in flocks producing at less than their genetic potential.

Summary

Egg producers in the U.S. are currently fortunate that catastrophic diseases (HPAI and VVND) have been eradicated and are excluded from our industry. Erosive diseases are controllable by applying immunization and biosecurity in combination with adequate nutrition and acceptable housing and environmental management.

A comprehensive approach to flock health requires a coordinated application of modalities to obtain optimal production reflecting the genetic potential of commercially available breeds. E1

Egg Case Packer



Durability
Reliability
Innovation

Massman's **simplicity of design** means virtually no changeover, as the specially-designed load heads handle trays or cartons without change parts. **Simplicity of operation** contributes to ease of maintenance through accessible placement of the few essential serviceable components.

FEATURES:

- Packs 20- and 30-count trays, 12- and 18-pack cartons of eggs!
- Two independent packaging lanes.
- Servo drives on the loaders are fast, accurate and quiet.
- Capable of 25,000 eggs per hour, per lane.

For innovative solutions to your packaging needs call Massman Automation Designs, LLC; designers and manufacturers of precision automated packaging machinery.



MASSMAN
Automation Designs, LLC

Tel: 320-554-3611

Fax: 320-554-2650

MassmanLLC.com

sales@massmanllc.com



The moving force behind HumaneWatch.org

Director of Research David Martosko explains his organization's fight against misinformation about the animal agriculture industry.

The Center for Consumer Freedom and its website, HumaneWatch.org, have emerged as an effective counter to the misinformation and hypocrisy disseminated by the Humane Society of the United States. David Martosko of Berman and Company, a leading Washington-based research and communications firm, serves as Director of Research for the Center and the principal editor of HumaneWatch.org.



David Martosko

Egg Industry recently had an opportunity to discuss current issues relating to the welfare environment.

Egg Industry: Could you provide our readers with a brief background to your professional activities?

David Martosko: I earned my bachelor's degree from Dartmouth College in 1991, and followed it with an M.A. from Johns Hopkins University. Although my early training was in music, I moved into other forms of communication, including advertising and broadcasting. I served with ABC as a producer, later joining the campaign of New York Sen. Rick Lazio. You can say that I am a media animal.

EI: What is the Center for Consumer Freedom?

DM: CCF is an independent 501(c)(3) organization established about 15 years ago. Its goal is to provide information to consumers about the politics of food. The hot-button issues include obesity, food toxicology, food technology and the "organic" debate, the demonization of individual food ingredients, and of course the impact of the animal rights movement. We believe it's necessary to educate the public about controversial issues, especially when sound science is regularly distorted by advocacy

groups for their own narrow purposes.

EI: How is the Center for Consumer Freedom funded?

DM: There are a variety of funding sources, including more than 100 companies that represent a broad spectrum of food producers, retailers, restaurants, and agriculture. And we get an amazing number of small contributions from individual professionals and consumers. The center's budget is relatively modest, hovering at around \$3 million per year. By way of contrast, the income of the HSUS exceeds ours by a 30-fold factor.

EI: Does the Center for Consumer Freedom have any overriding philosophy?

DM: We oppose limits on the range and extent of the public's responsible access to food and beverages of their choosing. We support every consumer's right to pursue his or her own options, be it vegetarian, vegan, Atkins, or a conventional diet. We recognize that eating nothing but donuts (the "Homer Simpson diet") is a stupid way to go through life, but it's also not the government's place to take that éclair out of anyone's hands. As the Center for Consumer Freedom's name implies, it serves

Street Journal ran an article about the HSUS's politicking, documenting the considerable amount of money the group expended in its political campaigns. The HSUS spent more in that year's election cycle, the WSJ reported, than Exxon Mobil. And it contributed more to candidates for Congress than Halliburton. After that wake-up call, we saw Proposition 2 unfold in California. And it became painfully clear that unless someone educated the public about just what the HSUS is (and what it isn't), the group would run the table everywhere it went. So HumaneWatch.org was launched in February of this year to expose the HSUS's unseen hand and try to bring the public's perceptions back in line with reality. In short, we're putting the HSUS, its finances and its practices under a magnifying glass. And it's becoming clear that the organization's carefully preened public image is a sham.

EI: What lessons can we learn from the recent settlement in Ohio?

DM: First and foremost, we learned that the HSUS can pull the wool over anyone's eyes. I confess that at first blush, I thought Ohio farmers were getting a good deal. I even wrote about it. But by the time the

See what Dr. Simon Shane has to say about the establishment of the Ohio Livestock Care Standards Board. www.WATTAgNet.com/17046.html

as a counter to the "food fascists" who seem to derive a perverse pleasure from imposing their views on the unwilling and the uninformed.

EI: How did HumaneWatch.org come into being?

DM: After the 2006 election, The Wall

actual text of Gov. Strickland's "Buckeye Compromise" was released the next day, the whole thing started to smell like day-old fish. The other thing we must learn is that the HSUS is playing a much longer game than farmers are. Livestock producers, like most businessmen and women, are busy thinking about the next quarter, the

next slaughter, the next auction. The HSUS is looking 20, 30, even 40 years down the road and figuring out how far it can move Americans' perceptions and preferences by then. This time, not only did Ohio farmers get a raw deal in the short term, but the HSUS also advanced one step closer to its long-term objectives.

EI: Do you consider that the HSUS may "go federal" if it's rebuffed at the state level?

DM: A federal approach does not seem likely in this Congress, and if the pollsters are right, things will be quite difficult for the HSUS in the next one. But I think yes, the next time the HSUS senses a political majority on its hands, it's going to parlay its intermediate state-by-state victories into a federal bill. Whether that goes over like a lead balloon, it's too soon to say. It's also worth noting that the HSUS may be hoping for as many states as possible to emulate Ohio's "livestock care standards board" strategy. With a dozen or so different boards, we're going to see a dozen or so different standards. It's just a matter of time before the HSUS argues (to the USDA, for starters) that we need a single nationwide standard to reconcile all those differences. If that happens, I don't think livestock producers will like the result.

EI: What can producers do to protect their public image?

DM: Based on recent events the egg industry should redouble its efforts to ensure that housing, procedures and actions are consistent with the highest standards of welfare and husbandry. There's no doubt in my mind that the HSUS was planning a few "October Surprise" moments for Ohio this year. In general, when animal welfare rears its head as a PR issue, animal ag industries don't react with enough vigor. They need to run the bad actors out of town on a rail, so no one (not even "Humane Wayne" Pacelle) can claim that animal abuse is an everyday occurrence on American farms. And above all, livestock farmers and ranchers should demonstrate greater unity in the face of the HSUS and other antagonists. Wouldn't it be great if the next time the HSUS rolled out a heavily spliced piece of video, we saw full-page ads in The New York Times the very next day, signed by 100 of America's biggest

players in the field? The ads could carry the message that "if you attack one of us, you're attacking all of us." Call it a mutual-defense pact. Sort of like NATO.


EI: How can the industry assist the Center for Consumer Freedom in its activities?





DM: We're grateful for as much support as we can attract, including

funding, technical and scientific assistance, and media opportunities. The forces aligned against farmers are well financed, they draw on an immense reservoir of pro bono legal assistance, and they have media savvy staff and volunteers. We get a lot of bang for our buck, but this is still a David vs. Goliath battle. And we're the ones holding the slingshot. EI

SALMET®

YOUR PROFESSIONAL PARTNER FOR SUPERIOR POULTRY EQUIPMENT!




SALMET has been manufacturing, since 1961, high performing poultry equipment. The superior quality of the materials used, combined with legendary German precision and craftsmanship, creates a product that guarantees long lasting and reliable performance with minimum maintenance and low energy requirements. Prior to series production all SALMET products undergo extensive field tests of functionality, reliability and efficiency. SALMET is a well known worldwide manufacturer of:

- Rearing cages (for day-old chicks and pullets)
- Layer breeder cages
- Broiler cages
- Laying cages
- Alternative (nest) systems
- Composting units
- Manure drying tunnels

North America:
 Salmel International
 PO Box 177
 Raymond, OH 43067 USA
 PH: (937) 358-2260
 kim.horch@salmel.us

Europe:
 SALMET Poultry Equipment B.V.
 Rijksstraatweg 324D III
 NL-2242 AB Wassenaar
 The Netherlands
 office@nl.salmel.com

www.salmel.com



Go to www.WATTAgNet.com/17130.html for the rest of the statistics.

Egg prices down from 2009

The ex farm egg price increases to 42.2 cents per dozen in May.

Maro Ibarburu, program manager for the Egg Industry Center located at Iowa State University released the May-June Statistical Report on July 1.

The current report is summarized for readers of *Egg Industry*.

✓ The U.S. estimated cost of production for June 2010 was 57.0 cents per dozen *ex farm*, 0.8 cents per dozen less than the previous month. The six-month average production cost for 2010 attained 58.4 cents per dozen, 1.9 cents per dozen (3.2%) less than the 59.7 cents per dozen

recorded during the first six months of 2009.

✓ The June *ex farm* egg price estimated by the USDA-NASS was 42.2 cents per dozen, compared to 38.6 cents per dozen for May 2010 and a six-month average of 70.0 cents per dozen for 2010 to date.

✓ The margin represented by “income minus cost” for June was -14.8 cents per dozen continuing the negative trend from May at -12.5 cents per dozen. For the first six months of 2010 the average margin was 12.2 cents per dozen. The June margin

was 10.3 cents per dozen below the equivalent value in June 2010.

✓ In evaluating the low margin for June it was noted that feed cost was 33.8 cents per dozen, with pullet depreciation at 8.5 cents per dozen and other fixed and variable costs of 14.7 cents per dozen, applying the standard cost factors used by the EIC. These values remained virtually unchanged through the first six months of 2010. Contribution per hen, based on June figures remained negative at -27.3 cents per bird which followed the -26.1 cents per bird value in June.

Smart Solutions



360 Dozen Egg Cart

- Available with Zinc Plated or Stainless Steel Shelves
- 5" Phenolic Casters
- Rust Resistant finish

Model 22-118

240 Dozen Egg Cart

- All Zinc Plated
- 5" Phenolic Casters
- Name Plates available

Model 22-120

Cart-Mart
A Division of Matco Distributors, Inc.

America's Leading Supplier of Material Handling Equipment

Serving planet Earth for over 65 years

Contact Bob Grimm for details.
1-877-332-9898 or 219-531-8787
fax: 219-531-8747
rgrimm@comcast.net
www.martforcarts.com

Innovative Compost Systems From Farmer Automatic! COMPOSTCAT™

- 57hp Duetz Diesel Turbo Charged Engine
- 5mph Tracks w/Piston Drive Motors
- Flow Thru Drag Chain Conveyor
- Industrial Duty Hydraulic Pump
- Rugged Steel Construction & Epoxy Paint Finish
- Skid Steering
- Industrial Duty Oil Filtration
- Second Beater Auger



New technology for better performance and reliability

COMPOST-A-MATIC Automated In-Vessel Compost System

The cost-effective way to convert manure into pathogen-free compost!



- In-vessel, agitated bed design
- Automatic & computerized operation
- Reduces ammonia & foul odors
- Proven performance with installations worldwide

Resolving Tomorrow's Issues Today!
"Our Innovation Is Your Success!"



Farmer Automatic
OF AMERICA, INC.

P.O. Box 39 • Register, GA 30452
(912) 681-2763
Fax (912) 681-1096
www.farmerautomatic.com
Email: fa@farmerautomatic.com

The cumulative six-month hen contribution now stands at 137.4 cents per bird.

- ✓ The Urner Barry (UB) simple average price for six U.S. regions, assuming 80% large eggs, was 44.3 cents per dozen for June compared to 45.7 cents per dozen in May 2010. The six-month simple average UB price was 69.3 cents per dozen.
- ✓ In reviewing retail prices for table eggs, the Bureau of Labor Statistics and the Department of Commerce estimated a May average of 152.3 cents per dozen, 14.3% lower than the April 2010 value of 177.9 cents per dozen but almost equivalent to the 150.1 cents per dozen recorded in May 2009. The simple average retail egg price for the first five months of 2010 was 175.7 cents per dozen.
- ✓ The large- to medium-grade white egg price spread over six regions was 17.0 cents in June compared to 10.8 cents per dozen in May with an average of 17.5 cents per dozen for the

first six months of 2010. Regional spreads ranged from 14.7 cents per dozen in the Midwest to 20.0 cents per dozen in the South Central region.

- ✓ During June 2010, layer feed averaged \$197.80 per ton, which is 1.4% lower than the six-month average of \$200.60 per ton based on six regions. During June the price range among regions was \$173.60 per ton in the Midwest rising to \$219.40 per ton in California. The differential of \$45.80 is equivalent to 7.8 cents per dozen applying realistic industry production parameters.
- ✓ For the first five months of 2010, commercial-pullet strain eggs in incubators have remained almost constant at 39.29 million compared to 2009. Straight run hatch for May increased by 5.7% over the corresponding month in 2009. As of May 1, egg-type pullet hatch decreased by 9.3% over April 2010 to 21.537 million.

✓ Projections for pullets to be housed in future months based on the five months-previous hatch and incorporating a 5% mortality factor, include a range in the increase in placements from 15.75 million pullets in April to 21.44 million pullets in September 2010. The 10-month average of 18.2 million pullets per month for 2010 is 6.3% greater (1.11 million pullets) than the 10-month average of 17.11 million per month for 2009. The 2005 to 2009 monthly average was 16.6 million pullets placed each month.

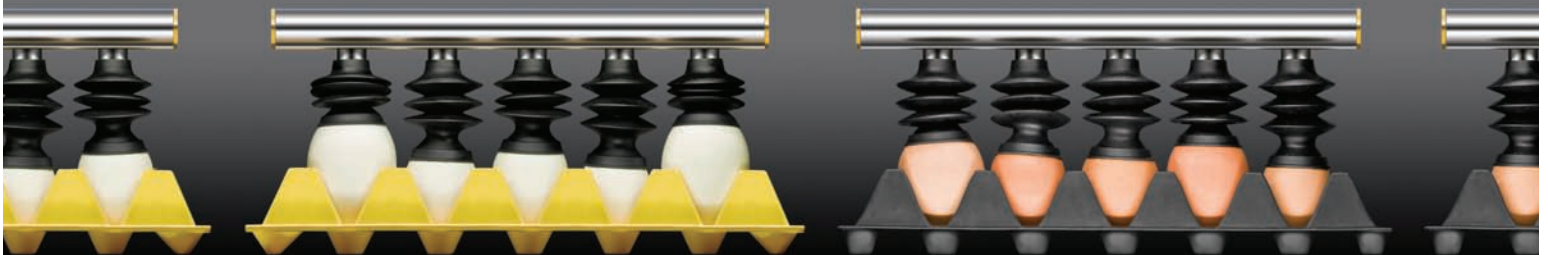
- ✓ The EIC projects an Urner-Barry Large Midwest price of 84.8 cents/dozen for July with prices in November and December attaining approximately 110.0 cents per dozen. **EI**

Egg Industry is indebted to Don Bell and Maro Ibarburu for the collection and presentation of detailed data which form the basis of this summary.

SANOVO STAALKAT

Lift Your Profits

with a new SANOVO Egg Breaker and STAALKAT Grader



www.sanovogroup.com

STAALKAT Graders, Farmpackers and Hatchery Packers will deliver the highest quality final pack for your egg markets. We have a world of experience with superior results that will help grow your business.

The SANOVO loaders, egg breakers, pasteurizing systems and spray driers will deliver the highest yields, best functional product properties with the highest quality extended shelf life in the industry.

SANOVO 
TECHNOLOGY GROUP

Sanovo Technology - Staalkat International - Sanovo Process Solutions - Rame-Hart - FoodCraft - Sanovo Environmental Solutions

Midwest Foods' Brickland Hatchery

Brickland Hatchery set to supply the MFA with Shaver White and ISA Brown strains.

By Simon M. Shane

The Midwest Foods Association, founded in 1975 as a buying cooperative, has standardized on the New Shaver white-feathered strain for their sixteen members. According to Bruce Lackey, general manager of the MFA, the decision was made on the basis of anticipated performance of the strain which was extensively modified in 2005. Traits which are considered to be of importance to the membership include high egg yield per pullet housed, acceptable shell quality, efficient feed conversion and good livability.

Brickland Hatchery will serve as the production center for both Shaver White and ISA Brown strain hens. Parent stock will be supplied by Hendrix Genetics in Canada. The unit located in Blackstone, Va., has been in operation since the 1940s originally as Clay's Hatchery and then subsequently under the Brickland name. The facility was mothballed into 2002 due to decreased demand for the strains which were then available. In October 2003, the MFA purchased the hatchery which was extensively renovated, upgraded and expanded.

The hatchery operates under the corpo-

rate entity of Midwest Farms LLC. Currently, the company owns and operates two parent breeder farms but has a number of contractors in Virginia and Pennsylvania. Pullet chicks are distributed to all of the MFA members extending from Texas in the South to upper New York State in the North with the bulk of deliveries to Midwest states. Current output is in the region of 12 million pullet chicks per year. The 28 Chick Master multistage setters retrofitted with Genesis™ controls have a capacity for up to 18 million pullets per year.

The Virginia breeding operation and hatchery is under the management of Neal Martin, a VPI graduate and second generation manager of the Brickland facility, following in the footsteps of his father, C. J. Martin. Hatchery manager Luis Soto has been involved in incubation since 1985 and has been affiliated with Brickland since an expansion completed in 1994.

Despite successive additions, the hatchery has a logical and uninterrupted product flow with setters and hatchers in two wings on either side of a central service core. This arrangement allows separate transfer,

take off and complete decontamination of the two hatching bays. New facilities under construction include an extensive egg store. Future projects will encompass

Read a geneticist's perspective on traits for a sustainable future.
www.WATTAgNet.com/6736.html

new biosecurity facilities, workers' change rooms and other installations contributing to hygiene and efficient operation.

Chick handling includes a carousel for sexing and five Nova-Tech™ modules for beak treatment and subcutaneous vaccination. Separate cabinet vaccinators are available to administer coccidiosis vaccines in addition to aerosol IB/ND vaccines as required by members of the MFA.

Parent farms are serviced by Margaret Coates, a graduate of North Carolina State, with extensive experience in breeder flock management. Both pullet and laying diets fed to parent stock are formulated to exclude animal protein and are supplemented with vitamins and micronutrients to optimize hatchability and chick viability. **EI**



Chick quality is a primary concern. Batches are examined by Neal Martin, vice president of operations (left) and Luis Soto, hatchery manager (right), at Brickland Hatchery in Blackstone, Va.



Interior view of the chick processing room showing feather sexing in progress (background) and beak treatment using Nova-Tech™ installations (foreground) at Brickland Hatchery.



Chick quality and hygiene are important considerations as product is shipped to the Midwest and Texas. Delivery trucks at Brickland Hatchery are decontaminated between trips.

▶ PRODUCTNEWS

Munters Corp. Aerotech Vortex exhaust fans



Munters Corp. offers the Aerotech Vortex 14-, 16-, 18- and 24-inch exhaust fans. These fans have variable speed and direct drive, plus fiberglass housing and a gel-coat exterior. Other features include cast aluminum airfoil propellers with stall-limiting design and two plastic shutter styles.

Munters Corp.
www.munters.us/aerotech

DSM Food Specialties Maxapal GO4

DSM Food Specialties offers Maxapal GO4. This enzyme is designed to remove sugar from liquid egg-whites, whole eggs and egg yolks

before spray drying. It is a liquid that comes packaged in a 20 kg plastic drum. Since the enzyme is derived through fermentative processes, it is kosher and halal certified.

DSM Food Specialties
www.dsm-foodspecialties.com

DBK 2000



Precision Beak Trimming

- trim 2 birds at a time
- up to 2,000 birds per hour per two man team
- accurately control cauterization time and temperature
- accurately control chick count per cage
- ability to remove cage liners at time of beak trimming
- ability to separate chicks with accurate chick count at time of beak trimming
- operator comfort through air ride seat

From Baer Systems, Inc.

Amos Baer 28802 40th Ave S Lake Park, MN 56554
 Tel: 218-937-5357 Fax: 218-937-5170 baersden@rrt.net

Try it for Free.

We'll send you sample Ziggity Max8 drinkers for your cage system, so you can see improved commercial layer performance and drier pits for yourself!

MAX8 DRINKERS

We're making this bold offer because we know the revolutionary Max8 works! A completely new drinker, the Max8 was designed exclusively for layers. It has many unique features that help deliver the water volume layers need without over supply. This results in drier pits, preventing harmful ammonia releases which could hurt egg production and diminish the welfare of your birds. It also helps reduce costly insect and rodent problems.

Max8 drinkers are easy to retrofit on your existing cage system. Contact your Ziggity distributor to arrange for your **FREE** Max8 drinker samples.



Twin Lock Max8 for Ziggity systems.

J-Lock Active Max8 easily upgrades most brands of watering systems.



Tel: + 1 574.825.5849 • www.ziggity.com

The Poultry Watering Specialists

► INDUSTRYNEWS

Cal-Maine Foods posts Q4 and FY 2010 results

For the 52 weeks ended May 29, Cal-Maine Foods Inc. posted a net income of \$67.8 million compared with \$79.5 million, a 14.6% decline compared with FY 2009. Earnings per share declined 14.9% from \$3.34 to \$2.85 for FY 2010.

Net sales attained \$910.1 million, 22% less than the \$928.8 million achieved in FY 2009. During FY 2010 Cal-Maine Foods sold 805,399 million dozen (777,885 million dozen FY 2009), of which 79% was derived from Company flocks compared to 77% in the previous year. Net average unit revenue was \$108/dozen compared to a 5% decline from \$1.14 in 2009. Spe-

cialty egg sales increased by 4.3% to represent 14.4% of sales compared to 13.8% in 2009 and generated 21.4% of revenue. From the data presented, generic eggs were sold at an average of \$1.03/dozen compared to \$1.68/dozen for specialty eggs including Eggland's Best, Farmhouse and 4-Grain Brands.

The company generated a gross margin of 21.4%, compared to the 22% margin in 2009. In reviewing the Cal-Maine balance sheet, it is noted that the current ratio improved from a ratio of 2.3 to 3.2 denoting a stronger asset base relative to current liabilities. Long-term debt was reduced by 9.7% to \$104.7 million and shareholder's equity increased by 13% to \$377 million from the previous fiscal year.

Taiwan study implicates free-range eggs

In a comparative study conducted by J.F. Hsu, C. Chen and P.C. Liao in Taiwan, scientists demonstrated significant levels of polychlorinated dibenzo-b-dioxins and dibenzofurans (dioxins) in eggs collected from free-range flocks. An average level of 1.79 ppb was recorded in the free-range eggs with levels ranging from 1.8 to 5.5 ppb. In contrast, a level of 0.3 ppb was determined in eggs derived from caged flocks with minimal variation suggesting that this level may in fact be a threshold.

Free-range hens are susceptible to ingesting toxins in soil. In contrast, caged hens which are housed in environmentally controlled buildings are protected from this contamination. EI

► 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 \$130 per inch per insertion (1-time rate), \$120 per inch per insertion (6-time rate), and \$110 per inch per insertion (12-time rate). The production charge is included except for ads with excessive make-up demands.

For more information on how to place your ad, contact:

Ginny Stadel

Tel: 815-966-5591

Fax: 815-968-0941

E-mail: gstadel@wattnet.net

WANTED:

Poultry Farm Manager for a Midwest million bird pullet and layer operation. Duties include farm performance, supervising farm employees, record keeping and compliance with government and industry regulations and standards. Please submit application to

poultrymanager@wattnet.net

Used Diamond Equipment

Graders, loaders, packers, etc.

Buy — Sell — Nationwide

Former Diamond Regional Sales Manager

New replacement parts are also available.

Contact Matt Poole: 804-387-6602

mpoole3447@yahoo.com

Check out our new website at:

www.internationaleggmarketers.com



CO2 MAK cart.
Approved by UEP
for disposal of
spent fowl.

FPM Inc.
Poultry carts & trailers
Ph. 402-729-2264
www.fpmne.com



Egg Industry CUSTOM REPRINTS

FIND PROFIT IN YOUR EDITORIAL EXPOSURE.

Custom reprint products of articles and features from *Egg Industry* create powerful marketing tools that serve as instantly credible endorsements.

For additional information, please contact Foster Printing Service, the official reprint provider for *Egg Industry*.

Call 866.879.9144

or sales@fosterprinting.com

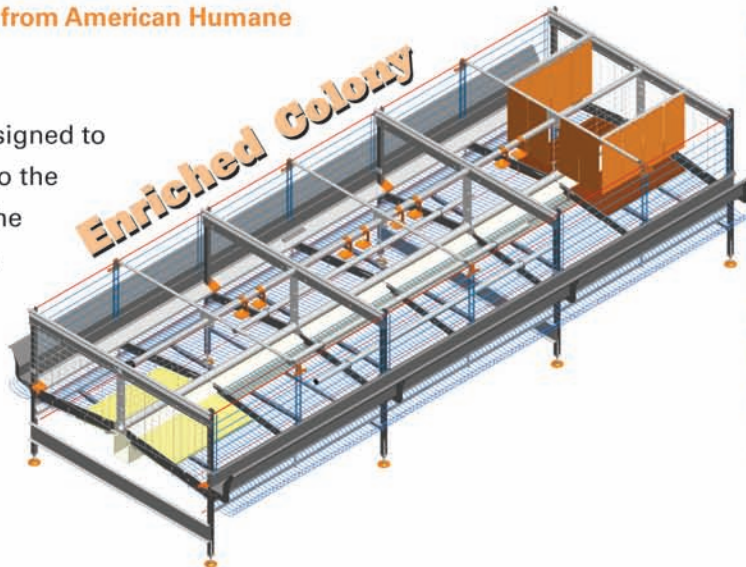
F O S T E R
PRINTING SERVICE



**ADAPTABLE VERSATILE
ENRICHED COLONY HOUSING**

With the AVECH (AVEK) Enriched Colony Housing System you can rest easy knowing it's the only system with the Seal Of Approval from American Humane Association.

The AVECH is designed to meet and adapt to the complexities of the different markets you serve, and the continued regulatory changes your business faces.



With millions of birds living in these systems throughout the world, and with the Seal Of Approval from American Humane Association, you can be confident in the proven performance, reliability and industry acceptance of the AVECH system.

Contact a Big Dutchman representative to learn more, or go to www.bigdutchmanusa.com



Egg Saver Wire and Wider Egg Belt (4.5")



Easy Access Doors Nest Curtain Litter Mat



Chain Feeding Perches



Flexible Auger Scratch Pad



Big Dutchman.
Innovation Breeds Success

Making a world of difference one client at a time.
+1 616 392 5981 • e-mail bigd@bigdutchmanusa.com
www.bigdutchmanusa.com

RONOZYME® P



IT'S TIME TO COMPARE APPLES TO APPLES
CONFUSED ABOUT PHYTASE? LET US SET THE RECORD STRAIGHT



DSM Nutritional Products
1 (800) 526 0189
www.unlimitednutrition-na.dsm.com
RP2010A Copyright ©2009 All rights reserved.

There are plenty of phytase choices in the market, each trying to break through the clutter by introducing a unique “benefit” that may not be any benefit to you at all. At DSM we’ve decided to level the playing field. The bottom line: when comparing phytase sources, all that matters is the cost of grams of product form to release equivalent amounts of phosphorus. You can learn more about how to evaluate phytase by going to www.phytasefacts.com.

Unlimited. DSM