www.WATTpoultry.com APRIL 2009 volume 114 number 4

Egg Industry
WATT
News for the Egg Industry Worldwide

Roller coaster ride predicted for egg prices

March egg industry data identifies recent trends and anticipates changes in production and profit.

By Don Bell

The March update of egg industry statistics, including USDA Economic Research Service values assembled by Don Bell of the University of California, Riverside, represents a comprehensive collection of data providing a perspective of the recent history and trends in production and profit.

Don Bell

The key values include:

- ✓Eggs in incubators (35.2 million) during February 2009 represented a 1% decline over the corresponding month in 2008 and a 4% decline over January 2009.
- ✓The hatchery supply flock has remained fairly constant, ranging from 2.6 to 2.7 million hens during the past six months.
- ✓As of Feb. 1 there were 283.5 million hens in lay at an average of 74.9% hen/month production.
- ✓The national flock is forecast to decline to a low of 281.2 million in August 2009 but will show a seasonal rise to 285.0 million in December.
- ✓During February 2009, 25% of the flock had completed a molt.

2009's first quarter has seen decline in egg production and cost, but later year projections indicate a coming rise.

©Argus456 | Dreamstime.com

At the beginning of 2009, the national flock was located in the following states in the proportions as indicated: Iowa (19%); Ohio (10%); Indiana (8%); Pennsylvania (8%); California (7%); Texas (5%).

During January 2009, 5.422 million cases were broken, representing 29.9% of production compared to a monthly

Unlimited INNOVATION

No matter the age, ROVIMIX® HY-D® Makes Hens Stronger

Whether a pullet or a mature hen, peak lay performance requires a well developed skeletal frame built with only the strongest bones. Research indicates that bones with the best strength come from diets supplemented with ROVIMIX HY-D.

Science suggests that ROVIMIX HY-D provides birds with all the 25-hydroxyvitamin D_3 they need to develop and maintain bones that can withstand the stresses of egg production. In young pullets, stronger bones are necessary for optimal lay persistence which can translate into more eggs. As the hen ages, ROVIMIX HY-D will help promote better egg shell quality.

To learn more about how ROVIMIX HY-D can strengthen your flock, call your DSM Nutritional Products Account Manager or visit our website at **www.nutraaccess.com.**

Rovimix® Hy•D®
Building a better bird.

Unlimited. DSM

average of 5.689 million cases during 2008 (31.9% of production).

Exports, consumption down

Exports of shell eggs during 2008 amounted to 1,918 thousand cases or 0.9% of production, down 26% from the record achieved in 2007. Significant markets were Canada (43%) and Hong Kong-PRC (30%) denoting a reliance on these two destinations. Exports of egg products in 2008 were equivalent to 3,108 thousand cases or 1.5% of production. Japan (32%); Germany and Canada (10% each) and Mexico (8%) were the major importers.

For more from Don Bell, please be sure to check out the following items:

Egg industry survey offers data for production benchmark
www.wattpoultry.com/benchmark.aspx

Don Bell responds to Proposition 2
www.wattpoultry.com/proposition.aspx

Over the summer months prices are expected to rise to 95 to 97 cents/dozen and complete the year at 116.4 cents/dozen

Domestic U.S. consumption in 2009 will attain 245.3 per capita, compared to 248.3 and 250.1 eggs in 2008 and 2007 respectively.

Feed is 60% of costs

Average production costs for the first two months of 2009 amounted to 58.7 cents/dozen. The principal components of cost derived from USDA data were:

✓feed (60%);
✓pullet depreciation (14%); and
✓other fixed and variable costs (26%).

Given a two-month average egg price for nest-run of 76.8 cents/dozen, producers generated a contribution margin of 18.1 cents/dozen into their plants. It is noted that the average USDA mid-month egg price declined by 29% from a January value of 89.6 cents/dozen to 63.9 cents/dozen in February 2009. This lowered monthly contribution from 58 cents/hen in January to 8.8 cents/hen in February. The average egg price for 2008 as reported by USDA was 93.4 cents/dozen ranging from a high of 130 cents/dozen in March to a low of 66.8 cents/dozen in July.

Variable prices throughout 2009

Urner-Barry, Mid-West, Large grade prices are forecast to decline from a projected price of 111.1 cents/dozen in March to a seasonal low of 88.8 cents/dozen in May. Over the summer months, prices are expected to rise 95 to 97 cents/dozen but complete the year at 116.4 cents/dozen through November and December. **EI**

Don Bell can be contacted at Don.Bell@ucr.edu. Visit his web site http://animalscience.ucdavis.edu/Avian.

EggIndustry
published monthly by WATT
303 N Main St Ste 500, Rockford, Illinois 61101-1018 USA
Tel: (815) 966-5574, Fax: (815) 968-0941,
http://www.wattpoultry.com

SUBSCRIPTIONS:
Subscription print edition prices: USA $84.00/yr, Canada $102.00/yr, Outside USA & Canada via Airmail $144.00/yr; $14/copy unless marked. Digital edition sent by e-mail: $36.00/yr. Prices in US Dollars. Business or occupation information must accompany each subscription order.

CONTENT DIRECTOR — POULTRY
Gary Thornton: gthornton@wattnet.net

PUBLISHER
Steve Akins: sakins@wattnet.net

EDITOR
Simon M Shane: sshane@nc.rr.com

EDITORIAL CONSULTANT
Ed Clark: eclark@wattnet.net

SENIOR CONTENT EDITOR
Sue Roberts: sroberts@wattnet.net

MANAGING ART DIRECTOR
Tess Stukenberg: tstukenberg@wattnet.net

TO ADVERTISE CONTACT: US/CANADA
Pam Ballard: pballard@wattnet.net
Sue Snyder: ssnyder@wattnet.net
Ginny Stadel: gstadel@wattnet.net

TO ADVERTISE CONTACT: SOUTHEAST ASIA
Dingding Li: dingdingli@vip.163.com

TO ADVERTISE CONTACT: INTERNATIONAL
Michael van den Dries: driesmvd@xs4all.nl
Bram Westers: bwesters@xs4all.nl
Frans Willem van Beeman: beemenfw@xs4all.nl
Tineke van Spanje: spanje@xs4all.nl

CHANGE OF ADDRESS:
Please report change of address to EGG INDUSTRY, WATT, 303 N Main St Ste 500, Rockford, Illinois 61101-1018 USA, Fax: (815) 968-0513, E-mail: jwessel@wattnet.net. Give BOTH old and new address.

EDITORIAL

WITH DR. SIMON SHANE

Egg value mirrors economic demand

Simon Shane

This edition of *Egg Industry* considers future egg prices based on research and experience of Don Bell, University of California at Riverside.

Egg revenue is a function of supply, which we can influence as individual producers and, on the other hand, by demand which is largely conditioned by economic factors beyond our control. Reducing production costs by enhancing efficiency is a significant contributor to margins.

Avoiding feed wastage, the subject of Prof. Sheila Scheideler's article, should be of interest to all readers.

The interview with Prof. Pat Curtis of the National Egg Nutrition Center provides a perspective on studies to extend product diversity and to improve consumer awareness of the value of eggs. This is important in relation to the demand for our products.

It is hoped that *Egg Industry* is contributing to a wider understanding of the forces which affect the profitability of egg production. Please remit any questions, suggestions or comments for the guidance of our editorial and production team.

Simon

sshane@nc.rr.com

Trusted Expertise

From our sales force and experienced veterinarians out in the field, to our CEO, and even the chairman of our board, the LAH team serving you has a wealth of real-world experience in nearly every aspect of the poultry industry. We truly are poultry people, with rich backgrounds including everything from hatchery manager to broiler and breeder technicians.

We've all walked in your shoes, which is why we are so focused on providing products and solutions that not only fit your individual operation's needs, but that address the ever-changing challenges to poultry health. Like you, we are avian professionals, and it's our job to arm you with the people, products and expertise that you can trust. We are your poultry health partner.

Imagine – expertise, reliability and strength, all under one umbrella of protection. AviPro from LAH. Your Avian Professionals.

In photos left to right are Lohmann Technical Veterinarians:
Dr. Ivan Alvarado, Dr. Mariano Salem with customers and Dr. Andy McRee with customer.

LOHMANN ANIMAL HEALTH

LOHMANN ANIMAL HEALTH
207.873.3989 ■ 800.655.1342 ■ 375 China Road ■ Winslow, ME 04901 ■ www.lahinternational.com

The Avian Professionals

Focal Duodenal Necrosis (FDN) in table egg flocks

By Eric Gingerich, DVM ACPV

Focal duodenal necrosis (FDN) is an intestinal disease of table egg flocks first described by Dr. Patricia Dunn of the Diagnostic Laboratory at Pennsylvania State University in a cage-free layer flock in 1997. Since then, FDN has been observed by poultry health workers in most of the states in the United States. Layers of all ages are susceptible but FDN has not been observed in pullets prior to maturity. FDN has also been found in organic flocks.

Eric Gingerich, DVM ACPV

Various names have been used to describe the disease such as "gray gut", "MUD" (multifocal ulcerative duodenitis), and FND which is the original acronym which is most commonly used.

FDN impacts production goals

The condition is characteristically associated with an inability of a flock to attain standard egg weight or egg production goals or a combination of these parameters. Egg weight lags behind normal by up to two pounds per case in young flocks. Peak egg production may be 2% or 3% below standard or flocks may show a post-peak drop of 1% to 10%.

The only clinical sign reported is that some of the birds show pale combs.

Financial loss depends on the severity of the disease but will be at least 1 to 2 cents per hen for each outbreak if only egg size is affected for a three week period, and an additional 3 cents per hen for each 1% drop in egg production, assuming a depression of three weeks in duration.

Duodenal lesions indicate FDN

Diagnosis is based on observations made when performing post mortem examinations of freshly euthanized birds. Necropsy of birds that have died naturally is not appropriate as the duodenum, the site of FDN lesions, decomposes quite rapidly after death.

Active surveillance for FDN is performed in one major egg production operation by sacrificing six birds from flocks every two weeks for necropsy to ascertain the presence of FDN lesions. The duodenal loop is the site of FDN lesions which consist of single to multiple, dark, irregularly shaped, 5- to 15-mm diameter areas in the mucosa that can be seen from the serosal surface. Upon opening the duodenum, the grey areas can be visualized on the surface.

Duodenal loop of a hen affected with fdn showing darkened areas which are visible through the serosa.

A "rotten-egg smell" due to the evolution of hydrogen sulfide from the lesions is noted emanating from the surface of the intestine. Histologically, a heterophilic infiltration of the duodenal villus tips is observed with numerous bacteria visualized on the surface.

Cause not confirmed

Originally the condition was ascribed to recycled feed ingredients such as bakery waste, animal byproducts or certain sources of calcium carbonate but this was disproved by finding FDN at the same incidence rate in flocks irrespective of being fed these ingredients. The presence of tapeworms was also considered to be a factor but flocks both with and without cestode infestation appear to be equally affected.

The cause of FDN is currently attributed to the Gram positive bacterium *Clostridium colinum* which is responsible for ulcerative enteritis in quail and is frequently isolated from cases of necrotic enteritis in broilers and breeders.

At this time the specific cause has not been confirmed as it is not possible to satisfy Koch's postulates by reproducing FDN with pure isolates of *Cl. colinum*. This finding is not unusual for *clostridial enteropathies* which require predisposing nutritional, environmental, managemental or as yet non-defined factors. The current theory is that the microenvironment of the intestinal lumen may undergo changes which lead to proliferation of *Cl. colinum* which produces toxins. This may be stimulated by suboptimal numbers of beneficial competitive

bacteria which occur naturally in the intestinal flora. Studies have been conducted by Agtech Products Inc. in cooperation with a Pennsylvania egg producer using PCR technology to examine samples of duodenal tissue from both affected and normal flocks.

Antibiotics are effective

Antibiotics that are effective against Gram positive bacteria are able to suppress clinical FDN. Compounds such as bacitracin, tylosin or oxytetracycline can be added in accordance with label instructions and restrictions.

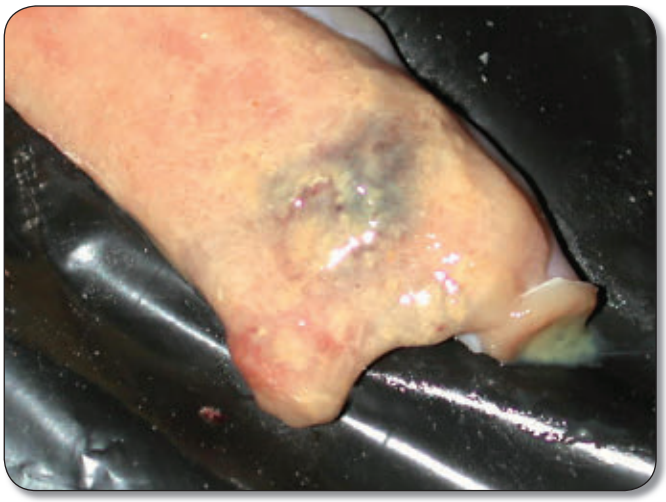
Preventive measures include the addition of an antibacterial agent in the feed with or without a probiotic.

Since FDN usually affects egg weight early in production, an antibiotic is normally fed until a target egg weight is reached followed by withdrawal of medication.

A recurrence of FDN is normally seen six to eight weeks after termination of administering an antibiotic. A decision is made at that time whether or not to treat depending on the production parameters of the flock.

Bacitracin at 25 grams per ton in feed, is the most commonly used product for prevention with or without a probiotic supplement. Probiotics, such as Primalac (Star-Labs) or Avicor (AgTech), and prebiotics, such as Bio-Mos (Alltech) or Diamond V XPC, or botanical products, including Apex (BFI) or Regano Poultry (Ralco Nutrition), are used alone or in combination but have not been thoroughly tested for their effect on FDN.

Organic or antibiotic-free egg producers must, however, rely on NOP-approved products for prevention. EI



Mucosa of duodenal loop showing characteristic necrosis indicated by dark discoloration.

Dr. Eric Gingrich is a staff veterinarian and Adjunct Assistant Professor at the University of Pennsylvania, School of Veterinary Medicine in the poultry laboratory located at the New Bolton Center.

He has extensive experience as a diagnostic pathologist having served as Head of Veterinary Services for DeKalb Poultry Research. He is actively involved in field diagnostic and applied research activities, instruction and service to poultry producers in the Northeast. He serves on a number of working committees and contributes his time and energy to professional associations.

7 ways to reduce feed wastage in caged flocks

By Sheila E. Scheideler Ph.D., Professor, Dept. of Animal Science, Lincoln, Nebraska

Feed wastage can quickly add to feed costs. There are a number of factors that can contribute to waste in a caged layer facility, including genetics, environmental control and feed quality. The following checklist is a logical starting point to implement a quality control program to reduce feed wastage:

1 Reduce physical wastage in the system. Adjust augers and chains to reduce any feed spills. Make sure that all feed troughs are adjusted as to height and that any holes or imperfect joins are repaired to avoid spillage. Check time clocks to ensure full delivery is made to all hens without over-filling of troughs and spillage over the outer lip. If feed accumulates on the floor there is spillage.

Dr. Sheila E. Scheideler Ph.D.

2 Monitor flock feed intake. Ensure that there are no sudden increases in feed intake in your flock. Sudden increases could indicate a defect resulting in spillage. Keep records to compare actual intake with breed standard. Irregularities and deviations from standard must be investigated. Have hens gained weight? Is the house cold? Are spills evident?

3 How often are feed lines operated? Research has shown that running the line more than twice daily will improve access to feed by all hens and enhance feed efficiency. Care must be taken to avoid an accumulation of fines and unconsumed feed in the troughs.

4 Provide high quality feed free of mycotoxins, mold and feedstuffs that have low palatability. If hens refuse to eat normal quantities, a prob-

lem exists. Unconsumed feed is a problem that needs to be addressed quickly to avoid deterioration in quality and mold growth.

5 Monitor house insulation and ventilation systems for ideal temperature control. Insulation is much less expensive than having to heat the house through the production of metabolic heat from feed. Usually insulation is maximized at the time of construction or during remodeling. If house temperatures are not maintained between 70-80 F, the flock will consume up to 2 lbs/100/day more feed than at a lower temperature. As the industry increases cage space allowance to meet Animal Welfare guidelines, maintaining house temperature has become more challenging.

6 Monitor body weight and gain, case weight and grade distribution. Overfeeding hens to achieve excessive body weight gain and egg size is in reality a waste of feed if there is no incremental return for extra large eggs. This consideration does not necessarily apply to breaker operations. Research supports maximum egg mass when hens are producing large grade eggs with optimum rates of egg production. Maintaining heavy hens to produce larger grades is not an efficient use of feed.

7 Evaluate strains of hen to select the lowest feed maintenance cost to optimize egg mass given specific housing and environmental conditions. Management of hens and selection of strain and body weight differ considerably between a breaker and a shell egg operation.

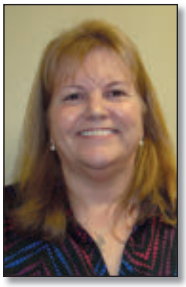
There will be some low-hanging fruit to pick in order to reduce feed wastage. After the mechanical defects and leaks are repaired, emphasis needs to be given to fine tuning record-keeping, quality control, and adherence to goals for egg mass. **EI**

Dr. Sheila Scheideler is a Professor and Extension Poultry Specialist and currently the interim Head of the Department of Animal Science at the University of Nebraska. She has published on a wide range of topics including management and nutrition since earning her Ph.D. from Iowa State University in 1986. She was the recipient of the PSA Helen Cecil Leadership Award in 2007 and was inducted into the Nebraska Poultry Hall of fame in 2008.

To hear Alltech's Aiden Connolly discuss the importance of new technologies for improving poultry nutrition from this year's International Poultry Expo & International Feed Expo visit: www.wattpoultry.com/technology.aspx

Advancing egg quality and safety through research and education

Dr. Patricia (Pat) Curtis is a professor at Auburn University, director of the Poultry Product Safety and Quality Peak of Excellence Program and director of the National Egg Processing Center. Dr. Curtis received her Ph.D. at Texas A&M and was appointed to the faculty at North Carolina State University before transferring to Auburn University. She is the recipient of a Poultry Science Association Poultry Products Research Award and the Helene Cecil Leadership Award for contributions to the field of Poultry Science.



Dr. Patricia Curtis

Her areas of interest include research on egg products relating to microbial safety, processing technology and functionality of egg products.

She has a special interest in food laws and regulations and has published extensively in texts, peer reviewed journals and industry periodicals.

Egg Industry: Your primary focus is the National Egg Processing Center. What are the objectives of this organization?

Pat Curtis: The National Egg Processing Center (NEPC) is responsible for three activities. Through our research we aim to enhance efficiency, safety and quality of shell eggs and egg products. Our outreach activities will provide educational training programs and customized workshops focused on egg-related topics. Our educational component will involve courses for agricultural college curriculums including participation in a consortium, the Great Plains Interactive Distance Education Alliance, which will provide online courses using the best faculty and specialists available.

EI: Which institutions are affiliated with the National Egg Processing Center?

PC: The Center is a partnership between scientists at seven land grant institutions, the Agriculture Research Service Egg Safety and Quality Research Unit in Athens, Ga., and the Food Safety Intervention Technologies Unit at the Eastern Regional Research Center in Wyndmoor, Penn. The NEPC operates in conjunction with an Industry Advisory Council comprising 13 active individuals representing primary breeders, egg producers, equipment manufacturers and egg processors.

EI: Please describe planned research activities by the Center.

PC: The long term research goal for the NEPC is to enhance the efficiency, safety and quality of shell eggs and egg products.

During the next two years we will evaluate the feasibility of using cold water to wash shell eggs, determine the impact of specific added ingredients on pasteurization temperature of liquid eggs and a comparison of eggs from range and traditional housed birds.

EI: You mentioned outreach and teaching as important functions of the Center. Could you please provide some examples?

PC: The Center will maintain and provide an extensive web-based technological information resource for the industry and provide a national clearinghouse and repository for advanced egg technology. We plan to provide direct education through industry-oriented short courses, webinars and seminars. We will distribute technical literature and act as a catalyst in developing partnerships among industry, government and academia.

At present the Center co-sponsors, with the American Egg Board and the National Egg Products School, a four-day workshop on the functional properties of eggs. The school is taught by 13 instructors from across the country. Scientists from the Center teach introductory and advanced HACCP training programs as well as delivering customized in-company instruction.

We are also working with the American Egg Board to create podcasts which will be available online to provide information related to egg products.

EI: What do you view as significant challenges facing the industry?

PC: The approval of Proposition 2

> ***The egg industry will be expected to design, implement and document food safety programs.***

by the electorate of California confirms the attention devoted to animal welfare issues. The changes as mandated by Proposition 2 will impact food cost not only in California but over a wider area especially if extended to other states. Non-confined egg production is not necessarily more humane than optimal caged housing as demonstrated by production and mortality data. Food safety also remains a high priority.

It is anticipated that the long-awaited FDA regulations will be issued after the new administration is installed. The egg industry will be expected to design, implement and document food safety programs. The SQF system will be adopted by most of our industry as a way of demonstrating to our customers that we are doing all we can to produce the safest eggs possible.

Furthermore, as environmental regulations become stricter they will impose additional costs for installation and operations. It is evident that today's customers require "green" products.

For more information on NEPC and its activities, contact Dr. Curtis at (334) 844-2639 or Pat_Curtis@auburn.edu, or visit www.ag.auburn.edu/nepc.

EI: How will we introduce and integrate SQF systems into live bird production and processing?

PC: It would appear that the easiest way to introduce and integrate SQF systems into live bird production would be to adopt a HACCP approach, encompassing structural and operational biosecurity programs and good management practices.

As we learned in implementing HACCP programs in plants processing agricultural products, each operation has its own unique culture and infrastructure which requires a customized approach to food safety.

The SQF system provides a comprehensive structure for planning and implementing both safety and quality while requiring a program of verification and validation through internal and external audits.

EI: Where do you see our industry in five years?

PC: I am confident that the egg industry will continue to produce safe and high quality eggs and egg products. Also, there will be a coordinated progression to enhance animal welfare and environmental protection. **EI**

INDUSTRYNEWS

WATT announces online community for poultry industry

WATT has announced the beta launch of AnimalAgNet.com, an online social networking community for those involved in animal agriculture. The site is created for producers, processors and marketers and others working in any phase of animal agriculture, including poultry.

"AnimalAgNet is designed as a place for animal agribusiness professionals to network and share knowledge in a safe, business-only environment," said WATT Vice President of Content Bruce Plantz.

Members of the animal agriculture community are encouraged to visit AnimalAgNet.com and join a community of their interest, make a comment, or post photos and videos.

Groups exist for poultry production, regulatory issues, animal health, feed trends, environmental issues and pig production.

Community members are invited to start their own blog, or form their own groups.

Land O'Lakes Posts Profits from Eggs

The financial report for Land O'Lakes (LOL), the Minnesota-based agriculture cooperative, posted a net contribution of $29.9 million for fiscal year ending December 31, 2008. This compares with $19.9 million in 2007. The egg production segment generated total sales of $606 million in 2008, ($514 million, 2007) representing 5.0% of total LOL revenue. According to information in the company 10K report, eggs are produced in 21 facilities owned by the company and 29 leased operations. Moark LLC owns 15 million of the 24 million hens producing egg which are marketed by Moark LLC. For fiscal 2008 LOL earned $159.6 million on total sales of $12.04 billion. The company also reported unrealized hedging losses of $52 million in 2008 compared to $13 million in 2007.

During the fourth quarter of fiscal 2008, egg sales amounted to $151 million, generating a negative contribution of $3.2 million ($5.1 million positive contribution in 2007). Eggs represented 15.5% of company profits including dairy foods, feed, seed and agronomy divisions. Although egg volume for the year fell by 5%, management reported that volume in the specialty and branded lines increased by 18%, confirming a move from lower-priced generic product.

Moark expended $18 million on capital improvements in the egg segment in 2008 compared to $5.1 million in 2007. The outlook expressed by President and Chief Executive Officer Christopher J. Policinski indicated that the current downturn in the economy and consumer spending might adversely affect results and that the current credit crisis will negatively influence liquidity. EI

PRODUCTNEWS

Cable guide for inlet systems

Chore-Time's easy-to-install plastic cable guide is for use with tunnel door or air inlet applications. The guide, which accommodates cables or cords, moves the pivot point for the cable closer to the wall. The cable guide eliminates the need to use pulleys or screw hooks to achieve sufficient pull for inlet or tunnel door operation. It also features tabs which hold the lag screw in place for one-handed installation.

Chore-Time
www.choretimepoultry.com

Alarm notification

Phonetics Inc. offers the Sensaphone Web600 alarm notification system designed to protect products in the event of malfunction of refrigeration installations. The Web600 connects to a local network and allows remote programming of sensors and monitoring of temperature and other parameters including humidity, water leaks and power outage.

Sensaphone
www.sensaphone.com

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 $120 per inch per insertion (1-time rate), $110 per inch per insertion (6-time rate), and $100 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