Poultry News
LOHMANN TIERZUCHT
3/2009

A journey through time

50 years of layer breeding in Cuxhaven

In 1959 the first "HNL Nick Chick" chicks hatched in Cuxhaven on the basis of a licence agreement between H&N and Lohmann and were distributed to progressive multipliers. At that time nobody could imagine that Lohmann Tierzucht would advance to become a market leader worldwide as primary breeder of laying hens and to make history within the following 50 years.

The licence agreement included important conditions for this development: Above all the faith that the licensor H&N had in Lohmann, combined with the transfer of the entire know-how of modern layer breeding and marketing under the name of HNL (Heisdorf & Nelson – Lohmann).

LOHMANN ... Editorial

Lohmann Tierzucht succeeded in setting standards in the field of layer breeding for a period of more than 50 years essentially for two good reasons: A competent and highly motivated team and a continuous and constructive dialogue with our customers and partners.

This constant dialogue is important to assure that we understand customer preferences and requirements while focusing on the development of the right hen for every management system and the right egg for every market. The most recent development: breeding high-performance layers for non-cage management systems, which is gaining more and more importance worldwide.

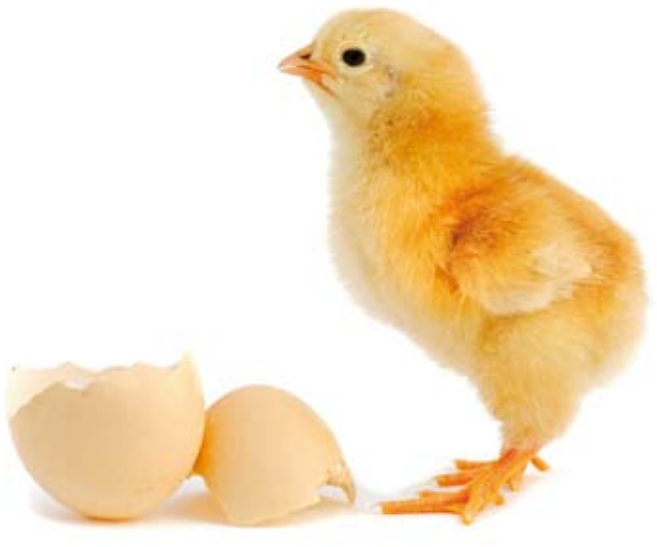
We always emphasise this dialogue with our customers and partners, especially in our anniversary year. Examples are the veterinary congress in Bremerhaven and the Franchise Hatchery Meeting in Würzburg this year, our first seminar with egg producers in the USA and numerous participations in fairs and local discussions with franchise hatcheries and egg producers.

This dialogue is a strong supporting pillar of our slogan: "Breeding for success ... together" and the basis for common economic success.

Sincerely yours
Dr. Hans-Friedrich Finck

Continued from page 1

50 years of successful layer breeding



Starting with a line cross which had established its superiority in the USA, the breeding goals were adapted to preferences in the licensed territory and the breeding programs were further developed during the time of the license agreement.

When the license agreement expired in 1978, Lohmann acquired the pure lines and expanded the breeding activities to compete in the global market for parent-stock of white and brown layer hybrids.

In order to remain successful during such a long period of time and to gain market shares, Lohmann had to adapt breeding goals and focus of selection to the changing requirements of the respective markets and to improve procedures of performance testing and estimation of breeding values.

Continuous adaptation

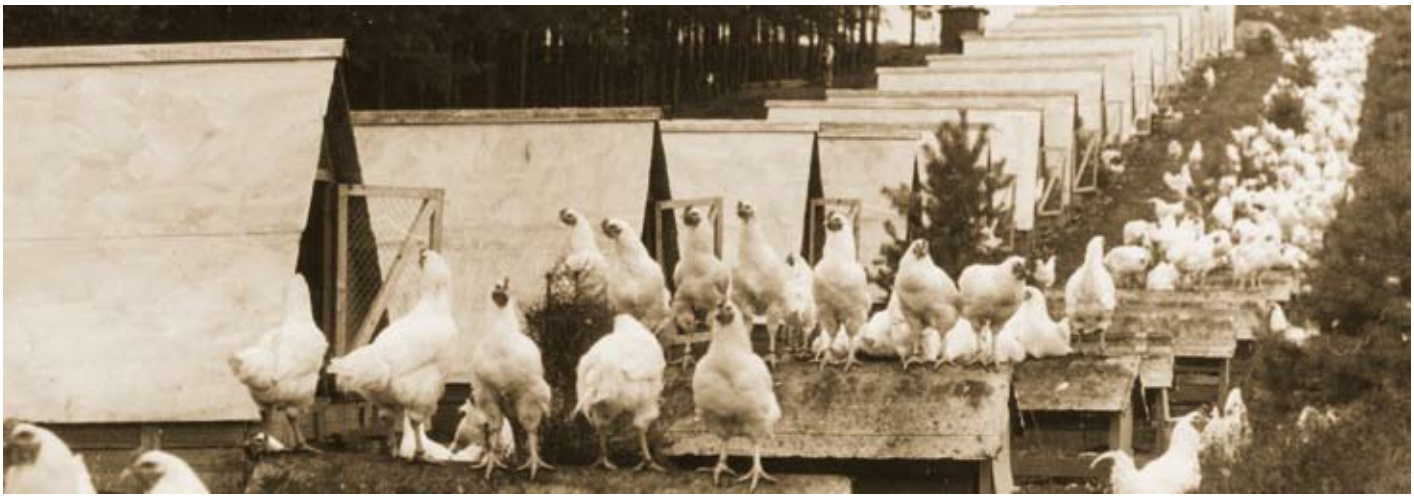
In retrospect, the development of Lohmann Tierzucht may be divided into five decades: During the first decade from 1959 until 1969 the breeding program for "HNL Nick Chick" layers in Cuxhaven was still a copy of the breeding programs of H&N in the USA – a perfect example for the "reciprocal recurrent selection" (RRS). Selected males and females of pure lines with proven combining ability were mated in pedigree to produce cross-line daughters for performance testing and subsequently switch-mated to produce pure-line progeny to be selected on the basis of short-term records of their cross-line half-sisters.

In contrast to the USA the German egg market required a higher egg weight. Parent performance was poor compared with today's standards, but that was accepted as the price to be paid for the best possible performance of the commercial layer

Two strategies against Marek's Disease

In the 1960s there were different opinions regarding the increasing risk of Marek's disease in some countries. H&N in the USA decided to include Marek's resistance in their selection index as additional characteristic. Max von Krosigk, responsible for the HNL breeding program at the time, decided to split the lines in Cuxhaven. Selection of the main lines continued without testing for Marek's resistance, assuming that the problem would be solved by vaccination before resistant lines could be developed by breeding. At the same time, sublines were selected only on Marek's resistance in order to achieve quick results regarding this characteristic.

During the second decade from 1969 until 1979 a comprehensive analysis of genetic parameters of all important characteristics took center stage. As a result Lohmann



Free range pullet rearing in Grossenhain in the 1960s

introduced new routines for performance testing.

First, egg production was recorded in 4-week periods in order to analyse genetic parameters for sexual maturity and early production, peak rate of lay and persistency. That was the beginning of our focus on persistency of egg production, which has meanwhile been further improved.

To improve shell quality more effectively, Lohmann changed from specific weight to shell breaking strength, with emphasis on persistent shell quality in a longer production period.

Genetic parameters analyzed

Then purebred and crossbred progeny of the same selected sires were reproduced simultaneously by means of artificial insemination in order to test them under identical conditions and estimate genetic correlations between purebred and crossbred performance and heterosis effects.

Based on these parameters, it was then decided to try combining crossline with pureline records in breeding value estimation. Subsequently, Lohmann changed to combined selection (mRRS) and thus improved the performance of pure breeds and parentstock substantially without sacrificing productivity of the commercial hybrids.

Finally, since mid 1970s individual feed consumption has been recorded, enabling Lohmann geneticists to select directly on egg income minus feed cost. With this trait, the appetite was optimized systematically instead of aiming at improved feed conversion ratio by minimizing body weight and maintenance requirements.

During the third decade from 1979 until 1989 the focus was to breed for the Asian part of the world market. At the same time, the trend to brown eggs in Europe became more important. After disappointing early field results with experimental crosses, a new line combination enabled Lohmann to catch up with leading competitors.

LOHMANN BROWN captures the market

The list of "most wanted" genetic characteristics was similar to those for our white-egg layer LSL: many saleable eggs during a typical production period, egg weight according to market preferences and efficient feed conversion. Moreover, egg shell color should be uniform and attractive dark brown. With all these criteria LOHMANN BROWN soon achieved a good reputation.

As a result of the growing demand for brown-egg layers, more and more franchise hatcheries asked for feather-sexable white-egg layers. Lohmann introduced the gene for slow feathering from an experimental line into the LSL female parent line and reached the same performance level as the vent-sexing LSL variety before it was introduced in the market after 10 generations of development. An additional benefit of developing the feather-sexable LSL was that all lines in the Lohmann breeding program had to be tested free of Leukosis virus.

During the fourth decade from 1989 until 1999 layer breeders were increasingly confronted with animal welfare regulations. The general ban on conventional laying batteries in the EU beginning in 2012 and the existing or expected ban on beak trimming in several countries increase the risk of losses due to feather pecking or cannibalism, especially for brown-egg layers.

Similar to observations around 1970 when HNL layers performed relatively better in German random sample tests under floor management conditions than in cages, we observe a similar adaptability to non-cage management for LSL hens today.

Continued from page 3

Floor management of layers in multiple tier system

Product range extended

In order to further reduce the risks of egg production in alternative management systems, all Lohmann lines are selected not only against feather pecking and cannibalism, but also for other behavior characteristics such as nest acceptance and usage of free range (see also article on pages 11 and 12).

During the most recent decade from 1999 until 2009, the product range was extended to meet specific customer demands as precisely as possible. Between LSL, LB, SILVER, TRADITION and SANDY for white, brown and tinted eggs, and LITE, CLASSIC and EXTRA for different average egg size, franchise hatcheries can choose from about ten line combinations.

Marker supported selection

As a first significant result of applied molecular genetics, Lohmann Tierzucht in cooperation with scientific institutes in Finland and Germany could localize the gene which is responsible for fishy taste sometimes observed in brown eggs. Meanwhile, all brown-egg lines of Lohmann are free from this defect.

Also for other characteristics marker assisted selection advanced from the stage of basic research to application in product improvement. Besides conventional performance testing for quantitative and qualitative characteristics, genomic analysis provides data for every breeding animal for more exact selection, thus increasing the accuracy of selection genetic progress.

Three pillars of success

The success story of Lohmann Tierzucht during the first 50 years of its history is based on three pillars: consistent application of latest genetic information and technology, optimized disease prophylaxis and – last but not least – true partnership with sophisticated customers whose demands are realized at an early stage and taken seriously.

History

1932
Heinz Lohmann founds the Deutsche Fischmehl GmbH

1959
Start of layer breeding based on a licence agreement with Heisdorf & Nelson (H&N), USA, and establishment of the Lohmann Tierzucht veterinary laboratory

1968
Development of specified pathogen free flocks for the production of Lohmann Vaccine SPF Eggs (VALO)

1970
Transformation of Lohmann & Co. KG to Lohmann & Co. AG with subsidiary Lohmann Tierzucht GmbH (incl. veterinary laboratory and VALO SPF)

1977
Expiry of the licence agreement with H&N and hence unhindered global sales of LSL layers

1987
Paul Wesjohann & Co. GmbH acquires Lohmann & Co. AG incl. Lohmann Tierzucht GmbH

1999
Lohmann Tierzucht GmbH becomes part of the globally-operation EW GROUP

2008
Opening of the new vaccine factory

Subsidiaries

1997
H&N International GmbH

2001
Lohmann Tierzucht Canada Ltd.;
LOHMANN France S.A.S.

Worldwide Shareholdings

1986
Arbeitsgemeinschaft der Lohmann Vermehrer

1997
Agalyk-Lohmann-Parranda AOOT, Uzbekistan

2000
Iberica de Tecnologia Avicola, S.A., Spain;
Animalco AG, Switzerland

2001
Lohmann GB Ltd., UK

2003
Avizoo Lohmann Italia s.r.l., Italy

2005
Lohmann-Ishonch-Nadejda OOO, Uzbekistan;
VALO 2005 España S.L., Spain

2008
Granja Rodriguez Serrano S.L., Spain

Patent filed for Marker-assisted selection

Scientists detected markers associated with feather pecking

Scientists of Lohmann Tierzucht and the Technical University Munich (TUM), Prof. Dr. Ruedi Fries, succeeded to make another big step forward to increase the performance of laying hens: They could identify markers for selection against feather pecking. Lohmann Tierzucht has applied for a patent for this selection procedure.

Feather pecking of laying hens occurs in non-cage management as well as in cages. Preventive beak trimming has been widely used until recently as the most effective method to prevent this behavior. This can only be a temporary solution, and long-term solutions have to be found. Marker assisted selection can help to reduce this undesirable behavior.

A working group around Prof. Ruedi Fries, animal husbandry department at the science centre Weihenstephan TUM, analyzed which region of the chicken genome is associated with feather pecking. Behavior genetic observations in Lohmann lines and following gene sequencing revealed promising new results.

Behavior scientists interpret feather pecking as an aspect of exploratory behavior. By chance Ruedi Fries read an article on the different behavior of great tits and blue tits. This article indicated that the variation of a gene DRD4 is responsible for a different curiosity level. Thus also regarding poultry the DRD4 gene could be the reason for a possible connection between feather pecking and exploratory behavior.

About tits and hens

For experimental purposes, the scientists

chose five chicken lines: two commercial lines, two lines selected for high and low incidence of feather pecking, and a control group.

The genotype of these hens was checked by gene sequencing for differences and similarities. Focus was on the "suspected" gene DRD4, which was known to determine the exploratory behavior of tits, and the neighboring DEAF1 gene, which has been associated with depression. The scientists discovered that both genes were correlated with the frequency of feather pecking, in the commercial lines as well as in the experimental lines.

Specific genes appear to determine the mental state of hens significantly. Hens which are inclined to feather peck appear to be latently depressed and easily stressed.

Based on this information family members are identified within lines and selected to produce progeny with reduced tendency to develop feather pecking in a given situation and thus more adaptable to non-cage management systems. Less feather pecking means better plumage condition throughout the laying period, better protection against cold and less feed cost per hen.

Further increase in performance

These markers offer new information to identify and select individuals with a balanced performance and behavior profile and thus increase the accuracy of selection beyond conventional performance testing and evaluation. In every generation the performance of the hens can be further optimized and the economy of the egg production effectively increased.

The combination of improved genetic potential and optimized management and nutrition forms the basis for economic success.

Lohmann Brown hen with perfect feathering

Continuous growth in Italy

A.L.I. takes over production in Esino hatchery

The development is continual: Founded in early 2003, Avizoo Lohmann Italia s.r.l. (A.L.I.) has by now reached a market share of nearly 22 percent of the brown egg market – and that only by internal growth, i.e. without additional acquisitions. Beginning this year the next important step towards market leadership was made: The company runs the Esino hatchery near Matelica under its own control.

Setting eggs for Embrex in-ovo vaccination system (left) and chick quality control in hatching trays (right)

Matelica is located about 80 km from Ancona. There are no other poultry operations in the neighborhood – an ideal situation for a hatchery. A.L.I. has concluded a long-term license agreement with the proprietors, the family Bruzzechesse. But before production could start, the hatchery had to be renovated completely and raised to Lohmann standards.

In January 2009 the time has come: all Lohmann chicks hatch in this hatchery specialized in layer chicks. The Pas-Reform incubators have a setter capacity of about 1.2 million eggs corresponding to a production capacity of about 8.3 million female chicks per year. Actually there are two hatch days a week with up to 180.000 female chicks.

Additionally, the same number of male chicks will hatch, a substantial number of which are destined for the production of "GALETTO" and "CAPONE" cockerels. For these special products of Italian style, the LOHMANN BROWN male is preferred due to its good growth performance.

In order to produce vital chicks of high quality, a particular hygiene management is necessary beginning with the production of hatching eggs. Therefore, Lohmann parents are kept on isolated farms. The individual sectors are separated from each other to exclude risks of

cross-contamination. The hatching eggs are disinfected on the farm before they are transported to the air-conditioned egg storage. Access to the farm is only allowed after a shower has been taken and clothes have been changed completely.

High quality standard

The hygiene and quality management of the Esino hatchery is similar. Here the same hygiene and quality standards are applied, as in all Lohmann plants world-wide.

The hatchery is isolated in a region with no other poultry business. This is important to minimize the risk of external contamination.

Moreover, the hatchery staff must take a shower and change clothes and shoes before entering the production sector. Furthermore, all materials arriving in the hatchery – including hatching eggs – are again disinfected in a disinfection chamber. Therewith, a contamination with pathogens can be prevented.

Also within the hatchery the single processes are strictly separated from each other. The rooms for incubation, hatching and chick processing, i.e. sexing and vaccination, are locally separated so that crossings are not possible. Chicks are dispatched in special one-way boxes.

The strict hygiene management guarantees in an optimum way that the rearing farms of the customers receive proper chicks.

Efficient protection against Marek

As in other Southern European countries, the risk of Marek's Disease is high. In order to control the disease, the correct vaccination of every single chick is essential. The Esino hatchery uses the Embrex-System. With this procedure the hatching eggs are vaccinated on the 19th day at transfer from the setter to hatching trays. Vaccination prior to hatch has the advantage that the chicks can already start producing antigens against Marek's disease before they hatch.

Marek's vaccination on hatch day

The day-old chicks are manually vaccinated in the neck with a bivalent vaccine. Protection against Marek's is considered to be better by using this system compared with the more common double vaccination on the day of hatch.

Chicks leaving the hatching compartment

For the benefit of its customers, Avizoo Lohmann Italia has achieved high chick quality standards with the combination of a dedicated hatchery, the rigorous hygiene program and the special Embrex vaccination system against Marek's.

"Dream-Team" formed

The basic condition is a highly motivated and competent team in the hatchery, the family Bruzzechesse, Manager of Planning and Service Gianluca Selva and the representatives of Lohmann Tierzucht. They all contribute to assure the quality and optimize the results. "Due to the excellent cooperation we established the 'Dream-Team Lohmann – A.L.I. – Esino' within a short period of time. For the benefit of our customers", Pier Ettore Lucchi, Director of A.L.I., is pleased to note.

Bounty Farms Inc.

From family business to market leadership on the Philippines

Bounty Farms Inc. is by far the most important company in the field of industrial egg production in the Philippines. Founded as a family business in 1986, it has become the national market leader within a short period of time. The market share is currently 45 percent. The close cooperation with Lohmann Tierzucht plays an important role as from 1999 Bounty Farms uses LOHMANN LSL EXTRA on its meanwhile twelve parentstock farms and four hatcheries. Bounty Farms Inc. is part of the Bounty Fresh Group which has activities mainly in the poultry and egg business but also in the field of pig production.

The history of Bounty Farms (BFI) began as a small family business selling eggs directly "from the egg basket" in Northern Luzon. The real beginning was the layer farm in St. Maria, Bulacan. The family Chen acquired the farm on 18th July 1986. That was the hour of birth of the first agricultural business of the Bounty Fresh Group.

To meet the challenge

Still today BFI sees itself as family business. Edwin Chen is President, while Kenneth Chen is Managing Director and responsible for the breeding and hatchery sector.

BFI survived not only many changes within the Philippine egg industry but also the challenges set for table egg production due to the irregular supply of day-old chicks. Regardless of that, the family Chen wanted to meet the requirements of the traditional egg market as well as those of the industry.

As the Philippines are a white-egg market and consumers prefer large eggs, "which are worth the money" the company searched for a laying hen which offers exactly these characteristics: more eggs of large size and a persistent rate of production after a high peak.

Import of LSL EXTRA

These requirements brought BFI directly to Lohmann Tierzucht, and a very successful business relationship was founded. On 29th July 1999 BFI imported the first LOHMANN LSL EXTRA flock from Germany. In the meantime BFI invested in the production of day-old chicks and is now well-positioned with twelve parentstock farms and four hatcheries. Already in March 2000 BFI began to sell day-old

Bounty's product range of fresh shell eggs

Modern egg production: a layer farm of Bounty

chicks for table egg production. In the following year Bounty began to rear and market started pullets.

The company employs about 400 people and achieved records in sustainability, quality and reliability as well as cost/performance ratio.

Leading supplier

Bounty has become the leading supplier of day-old chicks for table egg production. At present, there are seven breeder suppliers for commercial layer in the Philippines and ten different strain crosses competing to provide for replacement chicks of the current 24.5 Million laying hens.

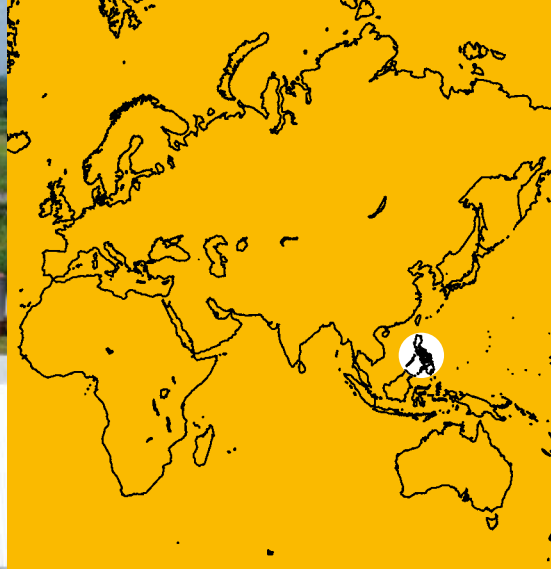
Since the introduction of LOHMANN LSL EXTRA in 1999, Bounty increased sales rapidly to 37 % in 2003 and 45 % in 2008. The positive trend continues. Under the direction of Sales Manager Dr. Arnold Cornelio BFI turned LOHMANN LSL EXTRA to the number one on the Philippines.

Happy about successful business development (left to right): Kenneth G. Chen, Managing Director; Edwin G. Chen, President of Bounty Farms Inc; and Tennyson G. Chen, President of Bounty Fresh Food

Bounty makes great efforts to inform consumers regarding the importance of eggs for a balanced diet. Furthermore, Bounty is involved in the market development for the Philippine table egg consumption and innovation in the layer management.

Bounty is an active member in several organizations

Bounty Farms is a member of the International Egg Commission, the national association of Philippine egg producers, the integrated egg conference of the Philippines and the Bulacan association for egg production.



The Philippine market at a glance

- The Philippines are traditionally a white-egg market.
- More than one third of its 92.6 million population is working in agriculture, about two million people work overseas.
- Unemployment rate is moderate at 8 %, but an additional 19 % are "under-employed"
- The average family income is about 3.127 US-Dollars per year.
- With a minimum wage of 6.83 US-Dollars eggs are affordable at a price of 0.104 US-Dollar per egg.
- Per capita consumption is about 94 eggs per year, i. e. relatively low.

New information on laying pattern

Individual laying pattern can be recorded also in alternative management systems

Alternative management systems are gaining in importance world-wide. Therefore, primary breeders are challenged to select hens best adapted to these conditions. Use of the recently developed Weihenstephan funnel nest box system for several flocks of pedigreed brown-egg layers, enabled us to study individual egg production records under conditions of floor management. In contrast to data from group cages we could determine the exact oviposition time per hen and study the laying pattern over several weeks, which is related to the total egg production. High peak rate of lay and the change to non-cage systems in Europe are good reasons to look for innovative selection criteria. Variation in oviposition time and the interval between two laid eggs are of interest in this connection.

The time of oviposition is influenced by different factors and varies from hen to hen within a flock. Most hens require slightly more than 24 hours for the production of an egg with good shell quality, but time intervals of less than 24 hours between two eggs are not unusual.

Every 24 hours one egg

Hens which need more than 24 hours and 15 minutes until the next oviposition tend to have a lower egg production than hens which lay one egg every day at the same time.

So called "turbo hens" may produce two eggs with normal shell within less than 24 hours, but subsequently skip two or more days. Hens with regular intervals between ovipositions of 24 hours to 24 hours and 15 minutes have the best annual production. Such information is not only interesting for behavior scientists. It is also useful e.g. for flock management to optimize nest capacities in alternative systems.

Light determines egg oviposition

As already shown in many previous studies, the time of oviposition is definitively determined by day-light in open houses and the lighting program in closed houses. The brown-egg layers tested started laying about one hour after the lights were turned on. Most of the eggs, however, were laid from about four hours after lighting.

Since most hens need a bit more than 24 hours for the production of an egg, the day time of lay will gradually become later during the course of a clutch.

During the first half of the production period a clutch comprises mostly 11 to 13 eggs, followed by a pause of one or sometimes two days. The next oviposition after the pause is again determined by lighting program. The main oviposition time for the brown-egg layers tested was four to five hours after start of lighting.

Hens are flexible

To some extent the hens can postpone oviposition if their preferred nest is or all nests are occupied, which is then seen as a deviation from the typical individual pattern of lay. Good nest acceptance combined with flexible time interval

Hen entering the Weihenstephan funnel nest box

between ovipositions are desirable characteristics to minimize floor eggs. To maximize total egg production, deviations from a 24 hours time interval should not become too large.

For breeding purposes the relation of these new characteristics to the main selection criteria – total number of salable eggs and egg quality – is important. Preliminary results indicate that a short interval between ovipositions during the first half of the laying period is positively correlated with total annual production. More data need to be collected and analyzed to substantiate the preliminary results.

Egg "seesaw" to register the time of oviposition

Detailed data collection

The only practical solution available until now is the Weihenstephan funnel nest box system – individual nest boxes with an antenna integrated in the floor. Each hen is marked individually with a transponder. When a hen enters a nest the transponder is automatically read. This information is transferred to a computer with special software to keep track of all "nest visits".

An egg collection tube is attached to the nest, into which the egg rolls over an egg seesaw, and the time of oviposition is recorded. A combination of the registered data: "Which hen is at a specific time in the nest box", "When was the egg laid" and "The sequence of eggs in the collecting tube" make it possible to calculate traits like the time interval, or measure hen individually egg quality traits in a floor housing system which could be used for genetic analysis.

72 units of the Weihenstephan funnel nest box are installed at the experimental station Thalhausen of the Technical University Munich. Lohmann Tierzucht is testing different lines in this unit and is beginning to use the information in the breeding program.

Dr. Wiebke Icken
Geneticist, Lohmann Tierzucht GmbH

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International Poultry & Pig Show in Nagoya, Japan:

Ghen Corporation honours faithful customers

In Nagoya, the fourth largest industrial centre in Japan located on the main island Honshu, the International Poultry & Pig Show took place from July 8 to 10. With 116 well-known exhibitors and nearly 16.000 visitors this fair is the leading show for the Japanese poultry and farm animal industry. The exhibition is the only poultry fair in Japan and due to the attractive Japanese market it is important for the neighbouring countries, too.

Group picture showing attendents of the poultry & pig show: Ghen Corporation staff members with important customers; Ron Eek, Lohmann Area Sales Manager (left) and Dr. Hans-Friedrich Finck, Managing Director of Lohmann Tierzucht (5th from right)

On the occasion of the show Ron Eek, Area Sales Manager and Lohmann Managing Director Dr. Hans-Friedrich Finck visited Ghen Corporation. In their presence the company, which belongs to the EW GROUP, honoured its most loyal customers by presenting an award in the form of a high-value glass statue.

With its LSL CLASSIC and LITE layers, Lohmann Tierzucht has been market leader in Japan for many years. About 20 hatcheries distribute the total volume of 110 million layer chicks. The EW GROUP with its range of layer breeds holds a market share of 80 percent.

Booth of Ghen Corporation well attended at the International Poultry and Pig Show

LSL LITE more and more popular in the USA

First Lohmann seminar in America was a great success

LOHMANN LSL LITE enjoys a growing popularity among American egg producers. The reason: the outstanding performance profile of these high performance layers which are distributed exclusively by Hy-Line North America. More than one good reason to present Lohmann Tierzucht with the world-wide success of its products and latest research results to leading American egg producers and experts in poultry management and nutrition.

Listening with interest to presentations by Lohmann staff members: American egg producers and experts from the egg business

Participants of the seminar convened on Amelia Island in Florida for several days. The program included introductory presentations on four general topics with lectures by Prof. Rudolf Preisinger on genetics, Dr. Atoussa Mazaheri on poultry health and prevention of diseases, Dr. Hans-Heinrich Thiele on husbandry and management, and Robert Pottgüter on nutrition.

Intensive technical discussions followed the presentations and continued during the breaks and the social program.

Of special interest were recommendations for optimal nutrition of LSL LITE. The interest was triggered by the well-known success of LSL LITE in neighboring Canada, where it became market leader soon after its introduction due to its top performance and economic efficiency.

The egg business in the USA is a different story. Traditional structures and marketing practices lead to different economic success criteria. Against this background, the participants discussed advantages of other strains compared to LSL LITE. A major aspect was the recent increase of feed cost in the USA for the typical corn-soya rations. The boom of ethanol, which takes about one third of the total corn production in the USA, has become a cost driver for the US poultry and animal industries. "In such a situation the goal must be: to achieve top egg production with the most productive strain, combined with the best management adapted to regional conditions and optimum nutrition," Robert Pottgüter emphasized.

Another intensively discussed subject was the increasing demand of consumers and animal welfare for eggs from alternative management systems. This demand creates already interesting market niches, but primarily confronts all people involved with important challenges for managing layers in alternative systems.

Management picked out as a central theme

Due to the situation in Europe and the ban on conventional cages in Germany by the end of 2009, Lohmann Tierzucht is familiar with all related problems and can share its experience with interested egg producers in the USA.

True to American traditions the social program was another highlight. The location directly at the Atlantic coast afforded sufficient opportunity for fishing and golfing.

The dress-code "golf casual" which is unusual in Europe contributed to the success of the whole event in an informal personal atmosphere.

Restrictions in Mexico suspended

Rancho Grande houses again LSL LITE parents

For two years Rancho Grande could not import parentstock from Lohmann Tierzucht in Germany. The Mexican government imposed restrictions for imports from Europe due to animal health reasons. Only imports of chicks from the USA and Chile were allowed.

By purchasing a new grandparent farm in Clinton, Michigan (see Poultry News, issue 1/09) Lohmann Tierzucht provided the opportunity to supply Rancho Grande with LSL LITE from the USA.

More information on this subject in the next issue of the Poultry News.

Final approval

New vaccination plant receives GMP status

The new vaccination plant works according to the principle and guidelines of GMP. This has been confirmed by the Lower Saxony Office for Consumer Protection and Food Safety (LAVES) according to guideline 91/412/EWG. This is another important milestone achieved by Lohmann Tierzucht GmbH to expand the production of flock specific vaccines.

Following the official inauguration of the vaccine plant in autumn 2008, the GMP status allows not only the production of flock specific vaccines according to the highest quality standards but also the production of approved vaccines.

This includes not only vaccines which passed through a complete approval procedure, but also vaccines for which simpler admission procedures are accepted as long as GMP conditions are provided. The European Medical Agency (EMEA) developed guidelines for so-called MUMS-vaccines (vaccines for minor use/ minor species) which permit an easier admission procedure.

We will also report on the following subjects:

- ***Events: Review of the Franchise Hatchery Meeting***
- ***Customer-News: The Japanese Market***
- ***Field-Report: Successful Hatchery Management***
- ***Poultry Health: Delivery facilitated by compartmentalization***

Dates

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