1 2012

FACTS THAT FIGURE

H&N International

Editorial

In this issue of Facts that Figure, I have the honor of introducing myself as new Managing Director, responsible for Sales, Marketing and Finance at H&N International – side by side with Prof. Dr. Rudolf Preisinger.
Born and grown up on a farm in Eastern Frisia, a region in Northern Germany, I completed an agricultural training and graduated in agricultural engineering.

My professional career commenced as a breeding inspector in cattle farming, continued as an employee of a Dutch export company, as Sales Manager of an agricultural cooperative and further on as Managing Director of GGI German Genetics.
During the following eight years, I worked as Sales Manager with focus on the European market for an American company in the industrial sector.
Before joining H&N International, my latest position was Managing Director of Genus (ABS and PIC) in the field of cattle and pig farming.

I am very proud to be part of the motivated and highly qualified team of H&N International now. In these turbulent times marked by great challenges, I assure you of my full commitment to continue to steer a successful course.

Sincerely yours
Hinrich Leerhoff

Nest Acceptance: Breeding and Practical Aspects

Breeding goals are constantly being adjusted to meet consumer preferences. Aspects such as laying performance, egg quality, feed conversion and animal behavior are also taken into consideration for setting these goals.

Figure 1: Egg quality tests

The data recorded from each of these criteria creates the basis for selection. In each generation, emphasis is strongly placed on more than 20 different traits and summarized in a selection index.

With the transition to cage free systems, the trait Nest Acceptance has been gaining great importance in the past years. The essential capture of data for this trait, as seen from a breeding point of view, could only be done with averages of groups in the past. Significant breeding progress can, however, only be done based on observations of single birds. In order to do this, a so-called Funnel Nest Box (FNB) was developed in a joint research project with the Bavarian State Research Centre in Weihenstephan, which provides brand new information for selection.

The FNB enables the automatic recording of nest behavior and performance traits for each hen in a cage-free production environment. Since several years, half-sibs of the pedigree hens in these spe-

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H&N International Event

Come meet us in Hannover

For the very first time H&N will exhibit at 2012 EuroTier with its own stand.

The 2012 EuroTier exhibition for animal agriculture will take place November 13 to 16 in Hannover, Germany.

The EuroTier show has gained a reputation as Europe's meeting place for poultry professionals from around the world. The venue for this event will be the Deutsche Messe Hannover Fairgrounds, a modern and attractive facility that is well experienced in hosting large trade fairs such as EuroTier.

Over 1,800 exhibitors will participate, many of whom will present the newest innovations in poultry husbandry as well as egg processing and packaging.

Hannover is the capital of the German state of Lower Saxony and it offers many first class hotels and restaurants.

H&N's exhibit will be located in Hall 9, stand number E31.

We look forward to welcoming you in Hannover.

EuroTier
The world's top event for animal production

Figure 2: Test on laying performance and nest acceptance

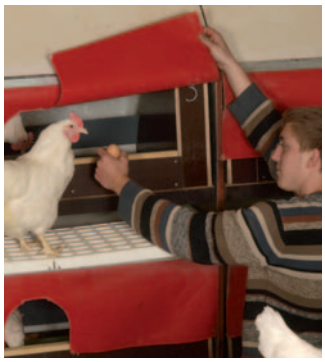

Figure 3: Daily routine

cial nests have been tested in terms of egg number, egg quality, nest behavior and nest acceptance. All of these traits significantly lead to an increase in the number of saleable nest eggs and reduced the amount of floor eggs.

In addition to breeding, it is necessary to highlight the relationship between the housing and management of the layers in alternative group housing systems. The encouragement of layer activity with corresponding rearing, punctual transfer into the production barns, a lighting program adapted to the production environment as well as feeding according to requirements, are the most important aspects to reduce the number of floor eggs and maximize economic success. Therefore, the contribution of your efforts is just as important as the genetics for achieving high performances and good egg quality, especially in floor housing.

Only together are we powerful enough to manage the increasing potential of layers in the right way and achieve excellent results with H&N birds.

H&N International **People**

Rich Wall

We are pleased to announce that as of July 1, 2011, we have appointed Mr. Rich Wall as **Vice President** of **H&N International GmbH.**

With this appointment, we would like to express our appreciation to Mr. Rich Wall for his long-standing and successful work in our company and the annual positive development of sales figures in the business areas of H&N. Last but certainly not least, we would also like to thank Mr. Wall for his commitment and efforts in supporting our new colleagues and for sharing his valuable experiences with them.

We would like to wish Rich Wall all the very best in his new position.

Veterinary Laboratory in Cuxhaven

The Veterinary Laboratory in Cuxhaven that provides diagnostic services for H&N is shared with H&N's sister company LOHMANN TIERZUCHT. With its microbiological diagnostic activities for the detection of infectious diseases primarily in poultry it supports the H&N Technical Service team in all veterinary related matters.

Veterinary supervision of H&N pure line and grandparent flocks in combination with worldwide customer service and long-standing experience in the use and testing of vaccines offers the best know-how in all questions regarding poultry health as well as the development and testing of vaccines.

Quality management:
The state accreditation according to ISO / IEC 17025: 2005 guarantees highest possible quality standards as well as scientific competence during all diagnostic examinations.

Equally, responsibility for quality control of autogenous vaccines and vaccines manufactured under GMP (Good Manufacturing Practice) is only possible by implementation of appropriate quality management systems.

The diagnostic methods

Serology:
Serological examinations offer by the detection of antibodies the detection of infections in a population, but also the effectiveness of vaccination programs used. Depending on the type of agent and the question of concern various different serological tests are used.

Methods like rapid plate agglutination tests (RPA), the agar-gel precipitation test (AGP) and the Enzyme linked immunosorbent Assay (ELISA) allow the detection of antibodies against a specific type of pathogen. Haemagglutination Inhibition Test (HI) and virus neutralisation test (VN) further allow the differentiation of antibodies against sero- or sub-types of a patho-

gen (e.g. Infectious Bronchitis or Avian Influenza). By using immunofluorescens techniques further specific questions could be addressed.

Bacteriology:
A major target of bacteriological examinations is the detection and typing of Salmonella as part of the zoonosis control programs. Comprehensive other laboratory examinations are the prerequisite for a modern hygiene monitoring. The classical agent isolation methods are used when in a diseased poultry population the correct identification of the pathogens and the evaluation of the resistance profiles for an antimicrobial treatment is necessary.

These methods produce epidemiological conclusions which are necessary for the use of the pathogens for the production of autogenous vaccines.

Virology:
Molecular biological techniques can indeed answer many questions of viral diagnostics, but they could not replace classical methods of virus isolation in embryonated eggs or tissue culture systems.
The Veterinary Laboratory will continue to offer these diagnostic services. This is the basis for the selection of virus isolates for the production of autogenous vaccines like those against Avian Reo or Adeno viruses or the Infectious Bronchitis Virus.

Molecular biology:
Especially in poultry production molecular methods like the Polymerase Chain Reaction (PCR) are a substantial part of veterinary diagnostics. Real Time PCR for example offers today the possibility, only within a few hours to test for the presence of Avian Influenza Virus in acute disease outbreaks and due to this is an important part in the fight against fatal animal diseases. While the detection of antibodies will only lead in retrospective information of the health status of a flock, PCR offers the most actual information for example about the freedom of Mycoplasma. In addition to that, today PCR and subsequent sequencing offers the fast characterization of Bronchitis field strains or the analysis of virulence genes in E.coli isolates.

Research & Development:
For decades the Veterinary Laboratory is involved in projects for research and development for the identification and control of poultry diseases. Together with the genetics department of H&N International further research projects are initiated which for example evaluate the genetic resistance against Marek's disease or infections with E.coli.

Education and advanced training:
Besides training programs for veterinarians and other employees of national and international customers the Veterinary Laboratory continuously offers the education of biological laboratory technicians. Furthermore, since the existence of the Veterinary Laboratory many veterinary thesis works and diploma projects have been supported and successfully realized together with universities and colleges.

Please find out what the Veterinary Laboratory in Cuxhaven can do for you!

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Dr. Barz is our specialist for all questions related to Bacteriology and Molecular biology.

Laos: a new frontier in egg production

The Southeast Asian nation of Laos has a relatively small but growing market with steadily increasing rates of economic growth and consumer purchasing power. These factors are leading to a growing demand for eggs. There is plenty of room for growth as estimated yearly per capita consumption is not more than 45 eggs. Demand is currently 100% for brown eggs. Laos also is home to a sizeable expatriate community as well as a thriving tourist industry.

It is interesting to note that some egg producers incorporate their facilities with aquaculture ventures. This is done by building the laying houses on stilts in ponds producing Tilapia, a food fish with growing popularity in world markets. Manure, spilled feed and broken eggs from the caged layers drop directly into the fish pond. In this way, there is no manure disposal problem and production cost of the fish is reduced.

A layer house built over a fish pond.

Poultry Breeding Farm 111 Company of Thailand distributes H&N "Brown Nick" day old chicks and started pullets in the Lao market. Currently, all production is sourced from their production facilities in Thailand. According to Mr. Boonyong Sritrirasri, CEO of Poultry Breeding Farm 111, his firm and H&N "Brown Nick" hold the leading position in the Laos egg layer market.

Mr. Tong Khum, representative of Poultry Breeding Farm 111 with Dr. Seesawad Sintawee, Director of the Vientiane Livestock Bureau at the layer farm.

Successful Thailand Seminars

In August, 2011 H&N International cooperated with its Thai distributor Poultry Breeding Farm 111 and its sister company Nadee Pundee Breeding farm in a series of highly successful seminars. Seminars were held in Bangkok, Chiang Mai and Udon Thani in Thailand and Vientiane, the capital of Laos. Total attendance at the seminars numbered 260 egg producers.

The turnout in Laos was especially big (please see accompanying article).

Group Photo 04/08/11: Included in this group photo taken at Vientiane, Laos seated in the front row are Mr. Boonyong Sritrirasri, Managing Director of Poultry Breeding Farm 111 (third from left), Mr. Chanta Thipphavongphanh, Deputy Director, Laos Ministry of Agriculture, Rich Wall of H&N (third from right) and Dr. Gilbert Cervantes (second from right).

Representatives of H&N included Rich Wall and Dr. Gilbert Cervantes. Topics presented by Rich Wall included the history and recent activities of H&N and recent flock performance and comparative test data.

Dr. Cervantes presented a talk on key points in management of commercial layers. Those present from Poultry Breeding Farm 111 and Nadee Pundee were Mr. Boonyong Sritrirasri, Managing Director; Mrs. Suwanee Sritriasri and Ms. Chanakan Sritriasri, Directors and Mr. Boonyiam Jokthong, Marketing Manager.

Through the strong cooperative efforts of Poultry Breeding Farm 111, Nadee Pundee and H&N International H&N "Brown Nick" enjoys a growing presence in Thailand and the leading position in the small but vibrant market of Laos.

Rich Wall and Dr. Bernardo Kojic presenting the seminar topics

Rich Wall is Speaker at Argentina Seminar

On October 17, 2011 Rich Wall was the speaker at a seminar held in Pilar, Argentina near Buenos Aires. Guests at the seminar included some of Argentina's largest egg producers and processors. Topics presented included "Hot Weather Management" and "Feed Grains Outlook for 2012".
Dr. Bernardo Kojic, a well known poultry health consultant in Argentina organized the event and served as interpreter during the seminar.
Argentina is the third largest egg producing country in South America with a total production of over 735,000 metric tons from 38 million commercial layers. H&N is represented in Argentina by two excellent distributors: Cabana Barhy and Nuestra Huella.

H&N School in Cuxhaven – A success story continues

Every two years H&N hosts the renowned H&N School in Cuxhaven.

From November 14 to 17, 2011, 34 highly motivated participants from 21 countries got the chance to enjoy a comprehensive training program from our highly qualified H&N personnel and guest speakers. The lectures included the latest scientific and practical information on the management of commercial layers, layer parent stock and hatchery management. Also included were interesting and lively panel discussions.
In the evenings the team from H&N organized fun team events like Bowling and the famous Karaoke contest. On Thursday the theoretical part of the H&N School ended with a social dinner hosted by the management of H&N. Each participant received a Certificate of Attendance.
The school concluded with a field-trip to the Netherlands, including a visit to a large, modern hatchery.

The feedback we received from the participants was overwhelmingly positive. The next H&N School will be held in 2013.

H&N Re-enters Brazilian Market

After an absence of several years, the H&N "Nick Chick" white egg layer is now available again in Brazil.

Since Brazilian egg producers have fond memories of the excellent performance of "Nick Chick" a new distribution company known as H&N Avicultura was established. The state of the art production facilities are based in the town of Nova Granada in São Paulo state. From this strategically located site chicks can be efficiently shipped to customers throughout Brazil.
H&N Avicultura is being prominently represented by Dr. Mario Nihei and Mr. Dirceu Sakata, both of whom are well known and respected within the Brazilian egg industry.

Brazil is home to nearly 80 million commercial layers which produce approximately 1.4 million metric tons of eggs per year. Brazil is the leading country in egg production on the South American continent, is second only to Mexico in Latin America and ranks seventh worldwide. Thus the importance of the Brazilian egg industry cannot be understated. H&N is pleased to once again be part of this vibrant and thriving market.

Dr. Mario Nihei

Mr. Dirceu Sakata

H&N International **People**

New H&N Marketing Manager

Since June 2011, Ines Borchert has been working as Marketing Manager for H&N International at the headquarters in Cuxhaven.

After her graduation from the University of Applied Sciences in Bremerhaven, where she earned a degree in Business Administration with emphasis on Marketing and Business Management, Ines worked for an International Moving company as an Assistant Marketing Manager. Next to her responsibility for all marketing activities and event organization she implemented a relocation services concept. In addition Mrs. Borchert has extensive experience in advertising while working for several advertising agencies before receiving her degree.

As a mother of 2 children at pre-school age she works 5 hours every day. Her responsibilities are the organization and coordination of all H&N marketing activities and events, like the H&N School and trade show participations worldwide.

H&N "Brown Nick" Tops Ustrasice RST

Results for Averages of Conventional & Enriched Cages

In the recently completed 2010-11 random sample test conducted at Ustrasice, Czech Republic H&N "Brown Nick" once again ranked at the top in performance results in averages from conventional and enriched cages. There were 11 brown egg entries in this test. "Brown Nick" ranked first in Income Over Feed Cost (IOFC) and a number of other important performance indicators such as eggs per hen housed, average egg weight, feed conversion, lay cycle mortality and egg shell breaking strength. All breeds entered were subjected to the same feed, housing and management conditions.

The Ustrasice Random Sample Test is conducted independently. The following table details the results of the test.

USTRASICE, CZECH REPUBLIC
RANDOM SAMPLE TEST; BROWN EGG STRAINS; PERFORMANCE RESULTS TO 74 WEEKS OF AGE
AVERAGES FROM CONVENTIONAL & ENRICHED CAGES 2010-11 RESULTS

Strain	Eggs/ HH	Avg. HD Prod. (%)	Avg. Egg Wt. (g)	Accum. EM/HH (kg)	Feed Cons. (g/bird/ day)	FCR kg/kg	Lay Cycle Mort. (%)	Age @^ 50 % HDP
H&N "Brown Nick"	**351**	**90.1**	**62.0**	**21.7**	**126**	**2.24**	**1.5**	**143**
Lohmann Brown Classic	345	89.5	62.1	21.4	124	2.24	6.9	142
Lohmann Brown Lite	347	90.1	60.9	21.1	124	2.27	5.4	143
ISA Brown	350	89.5	60.4	21.1	125	2.31	2.0	144
Hisex Brown	344	90.9	60.7	20.8	129	2.34	8.3	143
Hy-Line Brown	343	87.8	60.9	20.9	125	2.34	2.0	141
Hy-Line Silver Brown	346	89.6	58.3	20.2	124	2.38	5.4	141
Bovans Brown	347	89.5	61.2	21.2	127	2.32	3.9	143
Tetra SL	337	87.7	60.9	20.5	127	2.38	5.4	144
Novogen Brown Classic	344	88.5	61.2	21.0	126	2.33	3.4	143
Novogen Brown Exp.	350	90.3	60.0	21.0	124	2.29	3.9	142
Averages	346	89.4	60.7	21.0	126	2.31	4.4	143

Strain	Shell Strength (N) **	% Cracks	Shell Color+	Body Wt. (g)	IOFC/HH in Euros*
H&N "Brown Nick"	**43.5**	**2.7**	**16.1**	**1,970**	**7.65**
Lohmann Brown Classic	42.7	2.4	13.8	1,985	7.54
Lohmann Brown Lite	41.6	2.5	15.2	1,975	7.31
ISA Brown	34.8	4.3	20.5	1,896	7.14
Hisex Brown	37.8	4.1	20.0	1,866	6.92
Hy-Line Brown	36.9	3.9	14.3	1,960	6.93
Hy-Line Silver Brown	38.8	2.8	11.3	1,961	6.54
Bovans Brown	36.0	3.3	14.5	1,948	7.13
Tetra SL	38.9	2.8	18.6	1,999	6.65
Novogen Brown Classic	36.7	3.4	21.3	1,960	7.02
Novogen Brown Exp.	36.4	3.3	22.4	2,065	7.18
Averages	38.6	3.2	17.1	1,962	7.09

Notes:
* *Income Over Feed Cost per HH in Euro or US$ = (0.8 x EM) – (0.2 x EM x FCR)*
** *9.81 Newton (N) = 1 Kp*
^ *Age in days when 50 % Hen Day Production is reached*
\+ *Shell Color Index = L – a – b*
L = Brightness or reflection value (100 = white; 0 = black) *a = Red and green color spectrum* *b = Yellow and blue color spectrum*
Lower score indicates darker eggshell color
\- *All breeds subjected to the same feed, housing and management conditions.*

Imprint

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