

FACTS THAT FIGURE

H&N[®]

International

H&N International's 65th anniversary

This year 2010, is the 65th anniversary of the founding of H&N International. Since its inception in 1945 as Heisdorf & Nelson Farms near Seattle, Washington, U.S.A. H&N's sole business has been the breeding of superior laying strains for brown, white and tinted egg production.



Mr. Heisdorf in the early years.

Mr. Arthur Heisdorf, the H&N founder, was a pioneer in modern poultry breeding. He was one of the first poultry geneticists to use the selection technique known as Reciprocal Recurrent Selection. This is the selection of pure line families based on the performance of their commercial offspring which was a revolutionary departure from the basic poultry breeding techniques used at the time.

Research and Development

Through our continuous selection program, H&N layers have improved steadily through the years. Our professional staff conducts a genetic selection program which is dedicated to supplying H&N's global customer base with the most efficient egg layers possible. The constant goals of the H&N breeding program are to

produce birds which lay more eggs per hen housed and to do it with efficient feed conversion under a wide range of environmental conditions. This is linked to a technical support program in all areas of poultry husbandry that is conducted with the intent of providing service to our customers that is both timely and meaningful.

Recently, H&N has invested in expanding its global

Continuing a Long Tradition of Progressive Poultry Genetics.



H&N^{International} Event

Come meet us in Utrecht

H&N will exhibit at the VIV Europe Show in Utrecht, Netherlands, April 20 to 22, 2010. Please visit us at stand number A023 in Hall 12.

This year marks H&N's 65th anniversary of progressive poultry genetics. Key H&N staff will be in attendance throughout the show. We will be happy to update you on the latest developments in our products and services.



distribution network beyond its main base of operations in Cuxhaven, Germany. We are now able to supply our customers from five different strategically located operations in Europe and North America. This is critically important in these days of government initiated import bans due to Avian Influenza and other severe poultry diseases.

A dedicated team to meet your every need

In terms of product performance, technical service and continuity of supply, the needs of the customer continue to be foremost in our minds. Stated another way, "Your success is our success".



You can find more detailed information about modern nutrition strategies, including all tables at our website:

www.hn-int.com

H&N School 2009

The last H&N Technical School was held in Cuxhaven from November 9th until November 14th. Thirty-five of H&N's customers from 15 countries around the world participated in this seminar.

There was always very good interaction between the lecturers and the participants. Panel discussions during all the lessons were very helpful in updating all participants with the latest scientific and practical information on the

management of layers. A Certificate of Attendance was presented to each participant by Dr. Hans-Friedrich Finck, Managing Director of H&N International at a social dinner which concluded the successful seminar.



The ratio of digestible amino acids to lysine is:

Lysine
100

Methionin
50

Methionin + Cystein
91

Threonine
70

Tryptophane
21

Arginine
104

Isoleucine
80

Valine
88

Modern nutrition strategies

The crude protein contained in poultry feed is digested and metabolized into its components, amino acids. These smallest components of protein are essential for growth and egg formation.

The nutrition recommendations in management programs for H&N layers therefore contain standards for amino acid levels to be included. These standards have been updated recently to include digestibility of amino acids.

Based on recent research results, these recommendations are now changed to the concept of "ideal protein" or "ideal amino acid profile". This concept is already in use for broilers with world-wide success.

H&N International GmbH and Evonik Industries (previously Degussa) conducted a series of scientific experiments designed to determine the amino acid demand of modern H&N layer strains. Based on the results of these experiments the nutrition recommendations for layer rations have been updated.

Ideal amino acid profile

The concept of „ideal amino acid profile“ is based on a fixed ratio of all essential amino acids to digestible

lysine. The demand for digestible lysine is used as the basis for a given strain of layers and level of production, and the levels for all other digestible amino acids are derived from the digestible lysine level.

In feed formulation at first all basic data have to be available in the matrix. After the amount of digestible lysine is determined levels of all of the other most important amino acids will follow in correct amounts.

In the new recommendations the level of digestible lysine is unchanged. There are only minor changes for other amino acids. The density of rations remains the same. According to the concept of „ideal amino acid“ nutrition, H&N layers do not need more nutrients. They will only be fed more scientifically.

Advantages of applying the concept of ideal amino acid profile are:

- Better nutrition of the hens on the basis of effective demand for amino acids with reduced safety margins for crude protein.
- Lower crude protein level without sacrificing productivity.
- Reduced excretion of nitrogen and corresponding impact on the environment.
- Less protein helps to reduce heat stress.
- Less crude protein contributes to healthy microflora composition in the gut.
- Less ammonia formation, drier litter in floor management and cleaner eggs.
- In many cases reduced feed cost.



Innovation and Efficiency at Kagawa Ranch

Innovation and efficiency are key concepts at Kagawa Ranch which is located in Kyushu, Japan. The company produces only tinted eggs and has a farm capacity for 300,000 layers in conventional cages and both open and controlled environment houses.

Mr. Kenichi Kagawa, Managing Director notes that his company produces 11 brands of shell eggs, 18 processed egg products and four meat products made from spent

layer hens. In addition the company markets three brands of soy sauce. Undergrade eggs are converted to egg tofu. Also Kagawa Ranch composts and then sells all of its layer manure. Thus three seemingly undesirable by-products of egg production; spent hens, undergrade eggs and manure make valuable contributions to the company's profitability.

H&N Coral layers successful in Japan

Mr. Kagawa uses mostly H&N Coral layers at his farm. He appreciates the production performance, uniform shell color, improving Haugh Units and egg shape generated by Coral layers.

Pictured left to right are Yuji Goto and Masahiro Ueno, Ghen Corp. (H&N distributor in Japan); Kenichi Kagawa, Kagawa Ranch; Rich Wall and Jong Kuo of H&N and Jige Daiki, Yamagata Hatchery Farms Ltd., supplier of Coral chicks to Kagawa Ranch.



Ronald Trenchi honored at Latin American Poultry Congress

According to tradition, during the Latin American Poultry Congress outstanding poultry veterinarians and poultry businessmen are honored for their contributions to the poultry industry during the year. These prizes are awarded after honorees from each Latin American country are selected by the Latin American Poultry Association (ALA).

In Uruguay Asociacion de Productores Avicolas (SUR), an ALA branch for the past 54 years selected Dr. Ronald Trenchi, Latin America Area Manager for H&N to receive this prestigious award. Dr. Trenchi received the award during the recent XXI Latin American Poultry Congress held in Havana, Cuba. Dr. Trenchi is pictured holding the award.

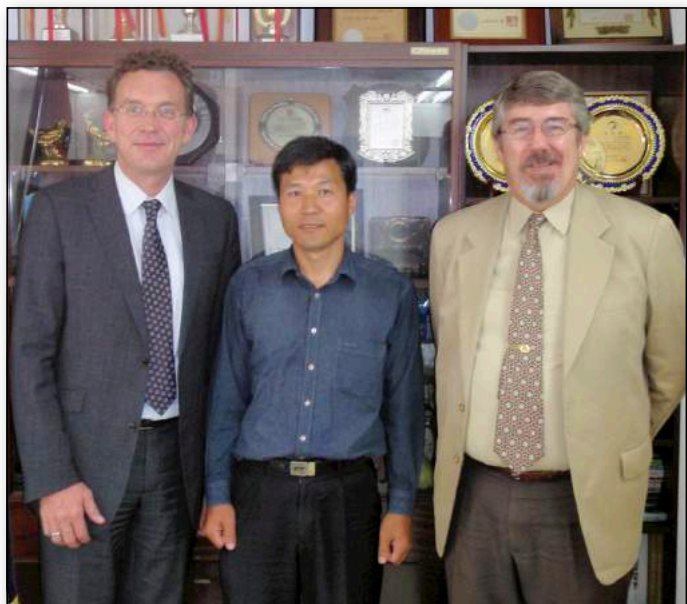
Country profile: Korea

The Republic of Korea located on the southern half of the Korean peninsula is home to nearly 50 million people. Since the end of the Korean War in 1953 South Korea recorded incredible economic growth. At war's end per capita purchasing power was equivalent to poorer African and Asian nations. Now it is equal to European Union member countries such as Greece and Spain.

Korean market demand is almost totally for brown eggs. Over the past 10 years annual per capita egg consumption has risen from 180 to 225. According to Mr. Kim Dong Jin, Director of the Korea Poultry Association, 80% of eggs are consumed in shell form, 10% are hard boiled, 5% is converted to powder and 5% to liquid. Egg quality and packaging continue to be increasingly important to Korean consumers.

H&N "BROWN NICK" layers are distributed in Korea by HNF Co., Ltd. which is located in the city of Pyongtaek, south of Seoul. In less than three years "BROWN NICK" has gained rapid acceptance by Korean egg producers due to its exceptional shell color and quality and profitable production performance.

Pictured during a recent visit to the offices of the Korea Poultry Assn. in Seoul are (l. to r.) Dr. Hans-Friedrich Finck, H&N Managing Director, Mr. Kim Dong Jin of the Korea Poultry Assn. and Rich Wall.



H&N BROWN NICK Tops in Ustrasice RST

With few random sample testing stations now operating worldwide, the results from Ustrasice in the Czech Republic deserve increasing attention. All strains participating in the test were subjected to the same feed, housing and management conditions starting from incubation through the rearing and growing periods. The management data recording is conducted independent from the breeding companies.

As indicated by the low mortality for all brown egg strains tested, we can assume that the general management conditions were good. Results from enriched cages were similar to those from conventional cages. Therefore the results from the two cage types are combined to achieve a better overall breed comparison. Only brown egg strains that were entered in each of the four consecutive tests are mentioned in this comparison. An average of several tests gives a more accurate indication of the perform-

ance profile of a strain. This is because a single test result can always be influenced by a random sampling error.

Top Average Results for "BROWN NICK"

The average results of "BROWN NICK" performance indicates it holds the number one position among the brown egg strains in the market for egg mass per hen housed. Only one other strain in the test produces a similar amount of egg mass. All the other breeds produced more than 0.6 kg

less egg mass to 74 weeks of age. With this high egg mass production and moderate feed intake "BROWN NICK" achieves the most efficient feed conversion. Besides the excellent production results, "BROWN NICK" was proven to have produced the best shell and the darkest brown shell color in the test.

Excellent Profit

The economic comparison IOFC (Income Over Feed Cost) indicates a profit advantage of 0.43 Euro for "BROWN NICK" compared to the overall average for all brown egg strains in the test. IOFC is calculated with a price of 0.80 Euro per kg of egg mass and 0.20 kg per kg of feed. IOFC is measured on a hen housed (HH) basis.

H&N People
Information



Ms. Andrea Callwitz

New H&N Marketing Manager

Ms. Andrea Callwitz was appointed Marketing Manager of H&N International GmbH effective September 1, 2009.

Immediately after graduating with a degree in communications and marketing, Ms. Callwitz was employed by H&N International and LOHMANN TIERZUCHT where she worked in the marketing department until 2006. After three and a half years of further marketing experience she returned to H&N.

Bringing New Accents to H&N

With her innovative and fresh new ideas, H&N International is pleased to bring Ms. Callwitz's new accents to H&N's image in terms of new advertising campaigns and publications. She has brought a fresh new look to H&N's Facts That Figure newsletter and management guides.

Ms. Callwitz is also responsible for the organization and coordination of H&N events and trade show participation worldwide.

Average Random Sample Test Results 2005-06 to 2008-09 Conventional and Enriched Cages, to 74 weeks of age Ustrasice, Czech Republic

Strain	Egg No. /HH	Avg. Prod. /HD (%)	Avg. Egg Wt. (g)	DEM (g/day)	Accum. EM (kg/HH)
H&N BROWN NICK	342.5	87.8	65.4	57.4	22.36
Breed A	341.5	87.3	65.4	57.1	22.32
Breed B	336.8	86.6	63.4	54.9	21.45
Breed C	339.3	86.7	64.0	55.5	21.73
Breed D	343.5	87.8	63.5	55.8	21.72
Breed E	332.5	85.1	64.3	54.7	21.38
Average	338.4	86.3	64.5	55.7	21.82

Strain	Feed cons. (g/day)	FCR (kg/kg)	Mortality (%)	Shell* Strength	Shell Color (L-a-b)+	IOFC/HH (Euros)**
H&N BROWN NICK	124	2.16	3.0	40.4	12.7	8.23
Breed A	124	2.17	3.1	40.4	13.2	8.18
Breed B	124	2.26	4.4	34.7	18.7	7.46
Breed C	124	2.23	3.4	35.4	16.2	7.68
Breed D	124	2.22	2.7	39.9	15.6	7.75
Breed E	122	2.23	2.2	34.4	15.1	7.56
Average	123	2.21	3.1	37.5	15.3	7.80

* Measured in Newtons (9.81 Newton [N] = 1 Kp)

** Income over feed cost per HH in Euro = (0.8 X EM) - (0.2 X EM X FCR)

+ 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

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