FACTS >> that « FIGURE



H&N TURNS 75TAKING A CLOSE LOOK AT THE COMPANY

I SEE YOUR POINT

FORMING THE BIG PICTURE FROM GLOBAL PERSPECTIVES







Editorial

H&N TURNS 75TAKING A CLOSE LOOK

Dear Readers,

H&N is turning 75. A birthday often makes us take a scrutinizing look into the mirror before going out to celebrate with partners and friends. What do we see and whom do we thank for what we are today?

A company is formed out of many peoples' dedicated collaboration, experience, shared goals and mutual success over all these years. All this is yours and ours together. We shaped and keep shaping H&N international around the globe together.

Despite our long-standing tradition, we're anything but aged. We're just about to really pick up speed and doing business more agile than ever. This make-over of "Facts that Figure" is a precursor to a more streamlined user-experience and more customizable content on our website. You will find new content faster and better targeted to your needs.

In this anniversary edition we celebrate tradition and future. We've asked some of our longest standing customers what made them stay with us and what they expect from us in future. We're also featuring a couple of next generation specialists in our team. And we've spoken to our "field colleagues" in your region to take a closer look into regional market demands and developments.

The digitization of many processes is a generic development across global society. The question whether we like that or not, won't turn back the clock. However, we clearly deploy technology as a tool that complements, but never replaces, personal interaction and exchange. We want to re-inforce personal communication with you wherever – both online and offline, remote and onsite whichever way is possible and safe. And the combination of analog and digital enables us to be there wherever and whenever you need us. It helps us to react to any challenges fast and targeted.

It's our job to observe, carefully select according to individual demands and to embrace change. Our parent stock is selected to be super adaptable to local conditions to eliminate local risks that threaten to endanger your profitability.

Market demand for poultry products and eggs rises globally. At the same time production conditions can and will keep changing. We've just seen how vulnerable economy can be to crisis and uncertainty. And how important it is to have a dedicated, sworn partner standing by your side shoulder to shoulder and fend off risks together.

Agile adaptiveness is our very business. We proudly look back on a lively tradition of flexibility and willingness to embrace change and to support you in benefitting from it in your markets also in future.

Let's celebrate!

Javier Ramirez Villaescusa



FACTS *that * FIGURE



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Dr. Pratap Rananavare joined H&N International in July 2019. After graduating from Veterinary Collage Parbhani, Maharashtra India in 1998, he specialized in Veterinary Microbiology and completed his post graduation in 2000...

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What made you choose this career path?

I am a science "Mensch" (german for "human being" or "person"). I simply love "to play" with data and extract from it relevant information that then is used to take actions to improve things...

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Remotely managing a global team located in different time zones around the world requires special capabilities since...

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Genetics also impact behavior. And that's important to know because, without doubt, traits related to animal welfare have been winning specific weight and momentum in the last decades in animal breeding programs in general...

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How to be a star in your webinar

Currently it's Corona, but in previous times travel bans due to cost-cuttings or other reasons already made way for communication going more digital.



An old stager to the new marketing team

Kira Döhring

Kira came to H&N International via LOHMANN TIERZUCHT.

She started her training there as an industrial clerk in 2016 and completed it successfully in early January 2019. In her training she went through different departments. In the course of this, Kira realized that...

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Saskia Riedel

Saskia joined H&N International in March 2020 as communication specialist. Her background encompasses public relations and content marketing mostly for global IT players. She also gathered experience as copy editor...

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Sneak peak into the future

Whatch out for more

H&N has always been around and in the world since 1945. Agile as we are, our brand has been more or less visible to the public eye in the past 75 years, as H&N for a long time supported other companies in their business success. While many other brands fuss about...



ARTHUR JOSEPH HEISDORF



30.12.1912 - 5.9.1992

ow to write about our founder and do his life`s work justice?

A man who revolutionized chicken breeding worldwide. Wisconsin born American. With a Bachelor degree in Poultry Science and Genetics from the University of Wisconsin in 1936, and an honorary Doctor of Science degree in 1977.

It's both easy and difficult to write about Arthur J. "Art" Heisdorf. Most people addressed him by his shortened first name. Much has been written about him to quote from Dr. Margaret Elsinor Derry, adjunct professor in the Department of History at the University of Guelph, does so very interestingly in her book titled "Art and Science in Breeding: Creating Better Chickens", Published by University of Toronto Press, 21. January 2012.

And he himself, upon becoming somewhat like a pope of poultry breeding, too, was writing articles frequently and attending poultry shows and egg producers' meetings.

You can't write about Arthur J. "Art" Heisdorf without mentioning his wife Mary G. Heisdorf, because it's also on her shoulders a global business stands on today. Not only H&N International but basically all the customers that receive parent stock that originated and blossomed from a revolutionary idea and new technique in 1945: to select the pure line families of chicks based on the performance of their commercial offspring.

In memory of Mary G. Heisdorf, Art established the "The Mary G. Heisdorf Memorial Scholarship" to honour his wife, partner and co-founder of Heisdorf & Nelson Farms in Kirkland, Washington.

Old photos suggest that he surely was a man with broad shoulders: because so many stand on these shoulders today

H&N Eggs Bring Top Market Prices

The excellent interior quality of eggs produced by H&N "Nick Chick" Leghorns brings dividends to you and puts smiles on the faces of egg consum-ers—important people in your business. Marketing agencies are looking for top market grades, and with H&N, your eggs have a better than average oppor-tunity of being in demand.

To achieve top egg quality the breeder and you, the poultryman, must work together for best results. Our work is designed to give you a layer which produces eggs of high quality, and good management will take advantage of these bred-in characteristics.



7. Provide at least one nest for every a
9. Pack extra large eggs separately,
lend to smash in the case the
10. Buy a layer noted for
where H&N "Nickjob for you.

Mary was an integral part of the business, helping Art first on the farm and in the hatchery, then with the financial end of the business, and finally receiving visitors from around the world who became distributors of their products.

Recognizing the role of the systematic application of genetic principles to both the number of eggs produced and the survival of the hen herself Arthur Heisdorf developed the system of Reciprocal Recurrent Selection (RRS).

This system relied on nicking alone and would allow for less complicated and cheaper breeding than the usual hybridization method.

Many geneticists remained skeptical until the 1960, because the groundbreaking nature of Heisdorfs' RSS was, that it did not aim at synthetic or pure lines, but solely at combining good nicking abilities of two lines.

Introducing more abilities into breeding usually means to open the doors for more variable and unpredictable results – but also for better and stronger criteria in the following generations as opposed to weakened inbred lines.

Aside the breeding revolution, Art also was seen as visionary manager. He assembled a staff of well-trained scientists and distributed the results of their efforts to more than 70 countries.

He supported extensive awards programs and encouraged his employees to be active in civic and trade organizations.

Prof. Dietmar Flock, who knew and worked with him personally for many years, speaks of him very highly. He liked Arts' attitude of working and involving people.

"It felt very much like being part of the family", Flock recalls.

"It was a privilege for me to work with Art Heisdorf and learn from his philosophy of combining dedicated work with service in the scientific and local community".

The family-feeling is yet another quality of Arts arts, that still survives today.

Letter from...

RICHARD WALL



Dear all,

First of all I'd like to thank the editors of *Facts That Figure* for the opportunity to participate in the preparation of this 75th anniversary edition.

The year 2020 marks an important milestone in the history of H&N International. Although I acknowledge that I had a role to play in the long history of H&N International, it was a relatively minor one.

I enjoyed a 30 year career at H&N which wouldn't have been possible without the courage, dedication and foresight of those who came before me. I would be remiss if I didn't mention the names of at least some key people who played vital roles in the success H&N now enjoys.

First of all I start with H&N's founder Mr. Arthur Heisdorf who possessed great foresight to what type of layer performance would be needed by the egg industry.

One of Mr. Heisdorf's key business philosophies was to hire competent people, give them a great deal of responsibility and let them do their work. Some of these key figures are as follows:

Mr. William Walkinshaw, Vice President & General Manager during the 1960's and 1970's.

Mr. Alan Bargmeyer, Vice President & General Manager during the 1980's and 1990's.

Dr. Cecil McClary, H&N's first director of genetic research

Dr. Gerald Havenstein, who was Dr. McClary's successor

Dr. Richard Towner, who succeeded Dr. Havenstein

Dr. Donald Zander H&N's first director of veterinary services

More recently, after the operations of H&N moved from the U. S. A. Prof. Dietmar Flock and his successor Prof. Rudolf Preisinger guided the genetic research program to new heights.

I hope I have succeeded in providing some useful information.

I wish all of the current staff of H&N great success in ensuring that H&N continues to remain highly relevant in the world egg industry.

Thank you again for the opportunity to share my thoughts with you.

Richard Wall. Seattle, April 2020







ich Wall was appointed sales manager at H&N International in 1988, and subsequently took on the position of Vice President which he held until retiring in 2018.





Working with H&N, especially for the first time, can require many smaller and bigger changes a company should make. Embracing change can be difficult, both for egg producers, franchise hatcheries and H&N's sales and technical service staffs. What are the best ways to embrace change?

First of all, be sure to correctly identify the actual changes, understand them and respond accordingly. This involves understanding performance trends in your own products at the parent stock and commercial layer hens.

Staying updated on current egg industry trends throughout the world is necessary. You must be prepared to think globally and act locally.

Poultry disease status, feed ingredient supply and product performance of competing products for example can and do often change. It is important to keep in mind the old adage "The only thing constant is change".

In your view, what are the attributes of a successful H&N distributor?

First and foremost, you must recognize that the chicken business is really a people business. Personal relationships built on mutual trust and respect are vital as well as a strong work ethic. Now I will list the attributes as follows:

Always ensure on time delivery of premium quality chicks and/or started pullets in the quantities ordered by the customers.

Follow this up with timely and meaningful technical support in all areas of poultry management. This must include veterinary, nutritional, flock management of parent stock and commercial layers, incubation and hatching egg handling and table egg quality factors.

Be active in support of your local egg industry. This can include providing speakers for industry events and financial support for promotional efforts in egg marketing.

Be effective in promoting your products through effective marketing and advertising. This will include participation in local and regional trade shows and advertising if and when that is appropriate.



How do you bridge the past and the future?

It is important to recognize and understand the foundation upon which H&N built, the knowledge and expertise that was gathered in the past and that it has been transferred to the present and ultimately the future.

It is important to emphasize that H&N will always strive to supply products that best meet customer needs.

Perhaps more importantly, providing timely and meaningful technical service to support our products will help provide a link between a successful past and a promising future.

Looking back, what were some of the biggest challenges and how did you manage to overcome them?

First I had to decide where and how to expand the market presence of H&N as rapidly as possible.

Then it was necessary to concentrate efforts on those targeted markets. For this purpose it was helpful to have a network of people in noncompeting companies serving the same markets in order to select key potential customers and develop the best possible relationships with them.

Then it was always important to do as you promised as much as possible. A friendly, respectful approach taking into account local customs and traditions was always a key factor.

In addition it is always necessary to "plan your work and work your plan". You won't get very far without organizing and executing the task at hand.

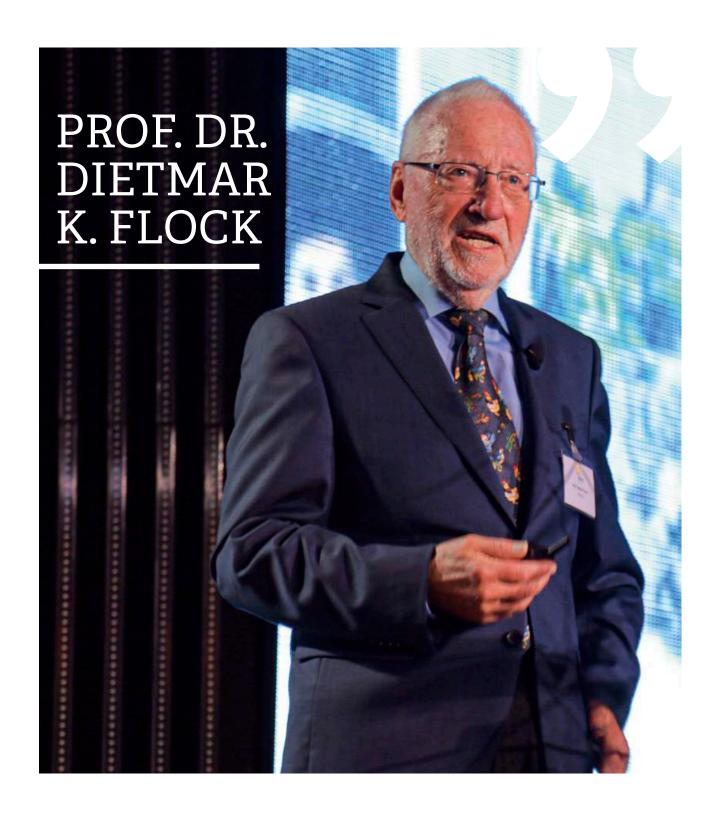
Plan your work and work your plan

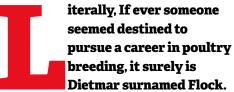
We thank Richard Wall for the interview.











After graduating from high school, he studied agricultural sciences in Bonn, Germany, with a major in animal breeding.

NOMEN EST OMEN

A Fulbright travel grant enabled him to continue graduate education in the USA, where he earned his M.Sc. at Virginia Tech in 1961 and his Ph.D. in animal breeding and genetics at Iowa State University in 1964.

With his strong background in experiment design and genetic analysis of large data sets, the renowned Max-Planck-Institute for Animal Science in Mariensee, Germany offered him a position as head of the statistics department, which he held from 1964-68.

During this time, Arthur
Heisdorf, founder and CEO
of Heisdorf & Nelson Farms,
offered Dr. Flock a position
in the genetics team with the
prospect to manage a joint
venture with Lohmann: to breed
"HNL Nick Chick" laying hens
for the white-egg market in
Europe and the Middle East.



The "Grandfather of our Chicken"

During a year of training at the headquarter of H&N in Redmond, Washington and another year with his predecessor Max von Krosigk in Cuxhaven, Germany, Dr. Flock learned a lot about the history of egg-type breeding and special characteristics of the H&N lines.

During 30 years of continuing genetic improvements, he enjoyed the benefits from two sources of information: analysis of pedigree data from the commercial lines and open discussions with poultry people in many countries.

When visiting countries using parent stock, Dietmar Flock often was welcomed as "Grandfather of these superior chickens", but he also used the chance to ask for critical comments on the performance profile.

In fact, some of the lines
Dietmar Flock selected
between 1969 and 1999, still
play an important role in
the global poultry market,
and the H&N Nick Chick
is gaining market shares
in competition with other
commercial lines, depending
on preferences of special
requirements of customers.

The application of the quantitative genetics theory, with systematic cross-breeding to minimize production costs per egg and maximize egg income minus feed cost, was a big change to the egg industry.

Dietmar Flock propelled annual genetic progress at H&N with new computer programs in Fortran, initially still with the punch card system.

While employed by H&N, he found time to teach poultry science at the University of Göttingen and was appointed as Assistant Professor in 1972.

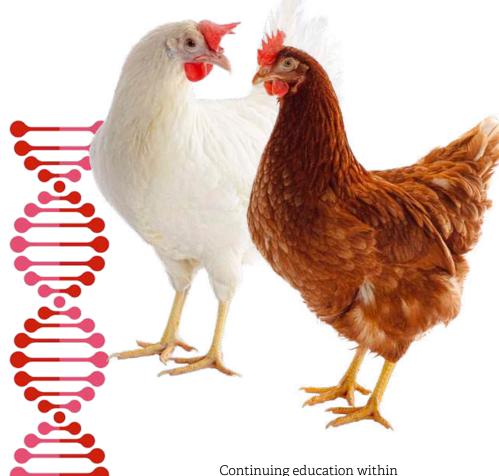




Two years later he had an option to become full professor of animal science at the University of Kiel, but preferred to continue research and development with commercial chickens for the global market. Several of his graduate students collected data for their Ph.D. thesis on the company's breeding farm.

After retirement, he served on the board of the World's Poultry Science Association and is associate editor of the World's Poultry Science Journal.

During the first years of his career, Dietmar Flock was able to focus on the accuracy of breeding value estimation and index selection to maximize annual genetic progress in the HNL lines, while the egg industry was confronted with overproduction of eggs, rising feed prices and a trend to brown eggs in Germany.



Improved parent performance, the introduction of a color-sexing brown-egg layer and a feather-sexing White Leghorn helped to answer the changing demand and to find new customers outside Europe.

the company became more important, and today, H&N offers comprehensive technical information for the staff of current and future customers in dedicated "Academies".

The information offered is based on accumulated experience from around the world.

Improved parent performance, the introduction of a color-sexing brown-egg layer and a feather-sexing White Leghorn helped to answer the changing demand and to find new customers outside Europe.



A Truly Artful Career



There are real life stories you couldn't write any better:
Dietmar Flock grew up in Kleve, a town in the Lower Rhine area, close to The Netherlands, and remembers the years before, during and after World War II, when many people had a garden and kept rabbits and chickens to sustain themselves during periods when food was scarce.

Many people kept small numbers of rabbits or chickens those days, he recalls.

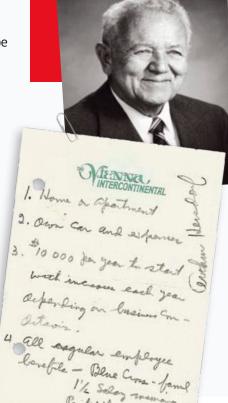
As a teenager, he had to feed the chickens before his breakfast ("animals come first"!), to check trapnests before and after school and take on responsibility for their well-being.

One day in art class, the teacher asked for a special assignment. They had to closely observe an object of their choice and describe it as best as they could. Dietmar chose the breed standard for dwarf Wyandotte chickens to describe how he would model a show winner. Unfortunately the teacher felt he missed the point and did not give full points.

Later in his life, Arthur "Art"
Heisdorf, founder of H&N,
recognized the "gift for
discovery" and the unique
capability of observation
and systematic pursuit
that it takes to work in
genetics in Dietmar Flock
and hired him as geneticist.

During three decades,
Dietmar Flock first followed
the "reciprocal recurrent
selection" scheme introduced
by Art Heisdorf, but soon
started to experiment with
alternatives to improve
parent performance without
sacrificing the superiority of
the commercial hybrids.

The HNL Nick Chick became the leading layer for the European white-egg market, between 1979 and 1989 feather-sexing was introduced, the brownegg market successfully entered, and individual feed consumption was measured to maximize egg income minus feed cost.



In the third decade, further diversification of the product portfolio including support and services was implemented to meet new market demands such as transparency of food production, sustainable production, preservation of genetic diversity and long-term perspectives for adequate nutrition of a growing population.

Art Heisdorf may not have seen the full market potential for Dietmar Flock's lifetime contribution, but he encouraged and enhanced relationships to scientific institutions in the global poultry industry and to form a network with specialists to support and sustain a strict scientific approach to breeding which was H&N's philosophy to product development.

I first met Art
Heisdorf in Vienna,
on his return from
the 13th World Poultry Congress
1966 in Kiev, former USSR,
recalls Dietmar Flock. After
a short presentation of the
H&N plans for breeding the
world's best laying hen, we
shared a delicious dinner at
the Vienna Intercontinental,
and after the dessert he made
me an offer, handwritten
on a small piece of paper.

The rest is history.



Small and Tall - Flock's Flocks

As a teenager, Dietmar Flock tried to combine show type beauty of his dwarf chickens with productivity, but his best producing birds were heavier than the standard accepted and the winner was a lazy layer.

As undergraduate student, he learned in theory how to improve negatively correlated traits, and the example of Swedish Red cattle illustrated how to produce fat and protein more efficiently from smaller cows.



As graduate student in the USA, he first worked with beef cattle and sheep at Virginia Tech and analyzed data from Holstein cows in Iowa for his Ph.D. thesis. In the USA, he learned to think that "bigger is better", and 10,000 kg milk per year was not uncommon, whereas the goal at the Max-Planck Institute Mariensee was 4,000 kg milk from dual purpose cattle on feed grown on the farm.

Dietmar Flock also worked with pig breeding and developed a special interest in feed efficiency and meat quality. In the years of the economic miracle in the recovering post war Germany, market demand for pork and beef rose steeply, whereas chickens were regarded as less interesting

But to me working with chickens wasn't a decline in terms of wither height at all, he smiled.

and "a minor thing".

Dietmar Flock not only liked chickens when he grew up with them as feathered family members and suppliers of delicious eggs and meat. He also saw the advantage of dealing with larger flocks of animals: large data sets to work with.

Due to their small size, many chickens can be kept in one unit and compared under controlled conditions. Chickens have shorter lifecycles, and many traits can be measured during the lifecycle to optimize genetic improvement, explains Dietmar Flock.

▲ Gauss' Bell Curve on a 10 DM Bill, he
Deutsche Bundesbank issued Deutsche
Mark banknotes in 15 different
denominations, including this 10
Deutsche Marks banknote (Carl Friedrich
Gauss). They are part of the Deutsche
Mark banknotes series. The Deutsche
Bundesbank started issuing these 10
Deutsche Mark banknotes from 1991 to 2002.

Source: www.leftovercurrencv.com

All of this would give him a far larger data set and thus more accuracy in selection.

You can best explain genetics with individual data, which follow the Gaussian Curve, also known as Bell Curve!

The economic goal of H&N during the past 75 years was always and still is: to produce and sell parent stock of competitive hybrids with desirable criteria for a specified egg market "on board".

Egg producers are looking for consistent superior flock averages, whereas geneticists maintain and exploit the individual variation to assure sustainable progress.

To me, working with chickens wasn't a decline in terms of wither height at all.



Beauty and the Bell

Many people think genetic science is all about the chase for that one gene or that one part on a DNA string or a chromosome that causes something in particular: susceptibility to a specific disease, feather pecking or other criteria of bird behavior.

But most criteria of economic interest depend on many genes and the interaction between genes in a given environment. So, breeders have to keep records over many generations and select families with superior performance under field conditions.

Like in art class, genetics has to do with careful, systematic observation – over many generations. The art of modern genetics depends on the ability to see individual beauty, efficiency, health, sturdiness, flexibility, strength and much more, to store the information on the computer and to use it for selection. Accumulated over many generations, geneticists separate wheat from chaff and reduce the influence of coincidence, says Dietmar Flock.

Talking about coincidence, also unexpected things come to mind:

There weren't any serious 'Black Swans` during my 30 years of responsibility, Dietmar Flock recalls.

However this may be attributed to his attitude and ability to seek solutions where others see catastrophes.

Any mistakes in the routine of data collection or prediction of genetic progress were always thoroughly analyzed, and any flaws or inconsistency would be corrected before customers could be affected.

The most critical situation he remembers was an outbreak with Marek's disease on a breeding farm, with high adult mortality. This probably reduced genetic progress in egg production a little, but improved Marek's resistance.

Genetics is mainly planning and changing plans if necessary while chicks are hatching. Don't count the chicks before they hatch!.

Genetics is mainly planning and changing plans if necessary while chicks are hatching. Don't count the chicks before they hatch!"







Dealing with Data

Working with an increasing volume of data, Dietmar Flock experienced the evolution of digital technology. In fact, his achievements wouldn't have been possible without keeping pace with computer technology:

When I started working for H&N in 1968, the home office in Redmond, Washington had a modern computer in the middle of the complex, which emphasized the importance, and every visitor could watch the activities on

the latest IBM machines.

Daily egg production and egg quality was recorded on test farms in Washington and California, and monthly records were processed in the home office.

Our challenge was to calculate breeding values and select the best pure-line males and females, based on paternal and maternal half-sibs", he recalls.

I could help to speed up the time for the annual selection and improve the accuracy of breeding value estimation with more powerful software in Fortran, which I developed and applied at the computer center of the University of Seattle.

Rapid processing of large volumes of data was a challenge then and still is. Today, data from different continents are collected online, and much more data from different generations are used to predict breeding values.

Also today gathering individual data is the basis for genetic improvement and of crucial importance.

But you need to know under which conditions the birds are kept and

how accurate the figures are.
Screening the source data
is an important first step in
data analysis and accurate
figures must be collected under
commercial conditions, taking
into account local temperature,
climate, humidity or aridity,
lighting condition or other
environmental effects.

But monitoring these effects is not enough, he warns.

You need people on the farm who can smell, see and hear every day whether your birds are healthy and happy!



The Story Goes On

Rapid expansion of egg production

Global competition with cycles of overproduction

The development of Marek's vaccines

Eradication of Leucosis

Fluctuating feed prices on the world market and adaptability of layers to variable feed quality

Exit from conventional cages

The gene pool of H&N included brown-egg experimental lines for many years, but they were not released for sale before they became competitive in the late 1980s, several years after Art

Heisdorf had sold his company.

Today, H&N geneticists continue to generate genetic progress, following his vision to breed the best laying hens for the global egg industry, and distributors of H&N day-old chicks can choose between strain crosses to produce white, brown or tinted eggs according to market demand.

Consumer preferences for eggs with different shell color and size Control of Salmonella infections Looking back, there was a long list of challenges to be overcome during the past 75 The issue of Cholesterol in years, beyond the economic human diets focus on maximum egg mass per hen housed at the lowest possible feed cost, such as: Avian Influenza Regulations for

To this day he is fascinated by the diversity of chickens and other poultry, which are displayed on annual exhibitions.

Preservation of genetic variation is supported by the European community and national programs, while commercial breeders are keeping large populations of a limited number of lines from a few breeds.



Considering the continuing genetic progress of the H&N lines even after 75 generations of intensive selection suggests that mutation and recombination of genes is more important than I thought before starting to work in the poultry industry.

international trade

of day-old chicks and hatching eggs

The task was and still is: to define a breeding goal which should help egg producers to produce eggs for consumers with different preferences, to look for genetic variation in the Gaussian Curve, to select males and females with the most promising breeding values – and hope for the best!

We thank Prof. Dr. Dietmar Flock for the interview.



AMONGST GOLIATHS

DR. DAVID CAVERO ABOUT CREATING TOMORROWS LAYERS TODAY

DR. DAVID CAVERO

Chief Geneticist H&N International

pecialized in selling parent stock worldwide, H&N is a well-known layer breeding company, but... What differentiates H&N from the other companies that are active in this area, since the statistical methodology and applied technology is similar in all the genetic companies?

It's the starting genetic pool, the selection strategy and the focus put onto the different traits that differentiate the different breeds. What sounds like a tongue-twister really means how H&Ns know-how is applied.

Furthermore, the big difference H&N also makes, lies in the customer experience and the bundling of parent stock with support and services into a holistic solution.

And what finally really makes H&N stand out and apart is the long-standing experience of 75 years of approaching the "thin red line".

The business of genetics is a very delicate one, due to the multiplication structure, the commercials that are laying the eggs now on the field were selected three to four years ago. Moreover, the selection process takes its time.

You need time to improve one trait, that's why the geneticists have to literally foresee where a particular market is heading to, and what will be the needs and wishes of consumers and producers in the medium to long term.

Marble Sculpture of ▶ Gian Lorenzo Bernini



We absolutely need such data and information to prepare the next generations of birds to fulfill these future requirements on time.

H&N is a
David beneath
Goliaths. Agile
and fast moving,
adaptable in
a way to find
creative, new
workarounds for
a given situation.







Forget about force
- Delicacy matters

Nature cannot be pushed. There are different relevant traits that are negatively correlated to each other. That means that if you try to focus just in improving one trait forgetting the others, these will tend to become worse.

For example, getting the maximum productivity and reducing feed intake at the same time, requires utmost carefulness since birds that are producing above the average will have higher nutrient requirements and will eat more than the average.

However, geneticists are used to these problems, and we have extensive populations where we can find animals where both traits are improved even when they are negatively correlated. Genetics is always about keeping the balance, making small changes generation by generation, and keeping all traits under control so that none of them go in the wrong direction. These improvements, even when in some cases are not huge, they are cumulative, so that after some years significant improvements can be shown.

More than thirty different traits are taken into account at the time of selection, and this has been significantly improved in the past decades. You must never push too much for one trait and forget the others. That's why the genetic goals are widespread and although the main direction is maintain the same, year after year the genetic goals are reviewed and fine-tuned and new traits are incorporated to fulfil new requirements.

It's hard to think of a metaphor that describes the very act:

I like to compare it with touching a spiders' net. If you touch just one thread, the slightest tremor propagates through the entire net, and you also get a responding tremor in the whole net, because everything is interconnected, like in Genetics all traits are correlated with one another.

The selection process can also be compared to designing a perfume, the need to find the perfectly balanced, orchestrated harmony between all the "ingredients".

It takes a lot of experience and lesson-learning.

H&N has 75 years in layer breeding and has collected many experiences and learnings during these years to become what we are today.

Size does matter - and speed

Common thinking is that successful companies are always very big, and that their size is defined by sales volume and big hierarchical structures.

By this economic definition H&N is a David beneath Goliaths. Agile and fast moving, adaptable in a way to find creative, new workarounds for a given situation.





Climate change is developing faster and faster, and it affects and accelerates everything from crops to pesticide usage to market prices and customer demands, the way the food is produced interests the consumer more than ever.

One driving force behind his department is the changing world and the need to have birds that are matching the requirements of the market, the consumers and the producers.

To be able to supply these birds to the market, it is important to recognize changes in consumption patterns and in the perceptions of the consumers and to react fast to incorporate new traits to the selection process and to fine-tune the selection goals to adapt the bird to these future conditions.

Our customers tell us which criteria matter to them, what conditions their layers will live in, and we select on target with these criteria and conditions as cornerstones.

We balance the criteria to match the conditions, since it's never one parameter alone to be dealt with, but a bunch of interdependent traits.

Adaptiveness and coping explained

H&N is producing birds that can adapt well to different climate conditions, different feeds and different management to obtain reliable and robust productions. There are different requirements worldwide, that's why we are offering different layers to the market, which mainly differ on the eggshell color and the egg size that the market is requesting.

It's not advisable to have a huge portfolio with one specific bird for every specific country, since that would mean to split the testing capacities in many different lines and ending up with small population sizes that limit the genetic improvement.

Therefore, the number of different birds offered to the market has to be thoroughly thought through and justified by requirements that are met and potentially also positively exceeded.

On the other hand, in our breeding programs we have several experimental lines under development, that are currently not sold at the commercial level, but are selected and focused in specific traits that might become important at a certain point and will allow us to launch new layers in the future.

Adaptable – is the word that often comes to mind. But actually we must talk about the ability of coping or to be "copying with" a changed or new condition, more than adapting birds by selection to very specific conditions.

The magic so to speak lies in the fact that H&N is making birds that are more flexible and can adapt to different diets for example.





Feed-tolerance - economical air bag built-in

We are selecting birds with a good feed intake, that allow the producers to work with more or less concentrated diets. The birds will adjust their feed consumption to their needs and eat more or less to produce the same results.

In this way producers can choose what makes more economical sense to them. Producers can design the feed ratio based on the raw materials they have locally available and their prices. And H&N helps them to do this, through our team of nutrition specialists, led by Chief Nutritionist Xabier Arbe.

If you would have one bird with a very limited feed intake hammered into the DNA, that adaptability or tolerance to changing diets wouldn't be possible, since a producer would need to always stick to a very concentrated diet.

And if that wasn't available or for other reasons impossible to give to the birds, production would be in free fall, and the birds along with it. The producer can choose what makes more economical sense to him or her.

Producers can design the feed ratio based on the raw materials they have locally available and their prices

Resistance is futile - resilience is not

In the past, it was often talked about looking for resistance especially regarding diseases. It's not possible to carry on challenge tests for specific diseases due to ethical and animal welfare issues.

And we don't have to, since we try to test birds under real-life commercial conditions in areas that have a high disease pressure. And by doing so we get information about mortality in birds with pedigree that we can use to select to increase the general viability of the birds.

Dr. David CaveroChief Geneticist
H&N International

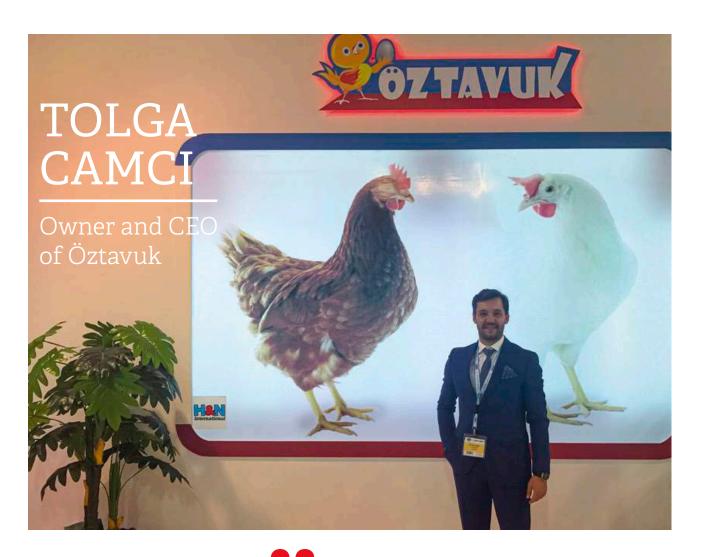


It's important to understand that we are talking about reducing the susceptibility of the birds to diseases and not about selecting birds that are resistant to any specific disease.

The idea is to select more resilient birds, that means birds that can cope with changes in their environment without their performance getting affected too much. For this purpose, we are combining information of testing performance under different field conditions worldwide and selecting the birds that are able to maintain a good performance in all different conditions, more than keeping the birds with the best performance in our breeding farm under optimal conditions.

We might sacrifice some genetic improvement in production, but at the end we obtain a better bird at the commercial level and for real life situations.





ztavuk in
Bursa has a
long poultry
tradition.
The company
is H&N's oldest customer
and started off as an egg
producer in 1967 and then
switched to just breeding
layers and broilers.

1067



1989

Their layer production solely relies on H&N parent stock which they started using already in 1989.

Five years later, Öztavuk also started producing broilers. Today the company supplies about 90 customers managing a total of about 20 million layer hens per year, from H&N parent stock.

Not only that, it has become a countrywide institution and truly is the epitome of chicken.

EPITOME OF POULTRY

Marketing is about building belief and delivering on promises. Any marketing specialist can learn a lot from Öztavuk. Because the breeder and producer of eggs and broilers purposely does not deploy all the usual colorful marketing tools and channels in fashion today. Excuse me? How is that done?

All right, there is a website with all necessary information on what Öztavuk is and does, and all details to contact the company. And every two years Öztavuk is present on the VIV ISTANBUL POULTRY & POULTRY TECHNOLOGY EXHIBITION.

But anybody, at least all 300 commercial egg producers and distributors in Turkey know Öztavuk anyway. It's not just because the company has been there for ages, it's how they walk their talk every day.

Can you imagine getting called up by people asking your opinion whether a certain breed of a certain other company is any good and worth the purchase?

Can you imagine getting called up by people asking your opinion whether a certain breed of a certain other company is any good and worth the purchase?

Any company reaching the level of an influencer, advisor and consultant that customers nationwide trust so much in that they even discuss their future purchasing plans

with, has really made it.

Some five years ago no one really used e-mail much,
Tolga Camci, founder and
CEO of Öztavuk recalls.

One can't help but wonder how a company in the digital age manages to achieve such a status. We simply talk to one another. We focus on building and maintaining strong bonds with all our customers, says Camci.

We achieved our brand credibility by being absolutely reliable and deliver on our promises. And I visit my customers regularly, at least every two months, sometimes even more often.



 Öztavuk Team at the office in Turkey (from Left to right)

Vice President Mr. Tuncay Camci, Yenisehir District Governor

CEO & General Manager Mr. Tolga Camci

Founder & President Mr. Nazim Camci, Commander of city

Chief veterinary of Öztavuk Mr. Ethem Kurucay



Keeping Promises is always between Humans, digital or not

Tradition plays a strong role in Turkey and helps to form strong bonds, of course.

"The new generation may start doing things differently, maybe also being forced to do things differently to the latest global developments", Camci thinks.

But for people of the generation in control now, aged between some 40 and 70 years, personal communication and facetime is what makes the difference.

"We achieved our brand credibility by being absolutely reliable. And we are, because the product is absolutely reliable and plannable. We are trusted in because we keep our promises. And promise-keeping is always and always has been something between humans, that doesn't change, be it the digital age or not. Either you fulfill or you don't. And we always do."

Competitors unintentionally strengthen the Öztavuk brand further, by not being able to deliver on their promises.

"It may sound funny, but I talk to all 300 egg and broiler producers directly. They often trace us back to the source of parent stock to ask me whether other products are any good and reliable."

How did Öztavuk know H&N parent stock was any good then?

"At first it was a chance we took. It worked out well, and so it became belief", smiles Camci.

Market demand is steeply on the rise, Camci estimates by 20% over the past two years.

"Both broiler and eggs have been under medical scrutiny like in many other parts of Europe and the world. But that has changed, we now hear about good cholesterol and that gave the market the literal wings."

Needless to say Öztavuk is best prepared to keep fulfilling rising demands:

"We know we have the best birds with best genetics and we get the best support. That's all we need!"













AHMET AKPULAT

Poultry Nutrition Technical Manager H&N International



hmet Akpulat joined H&N International in December 2019 as a nutritionist.

Born near Bursa, West Turkey, he studied animal science at the university of Izmir. Animal feeds was something that really interested me, because the food chain literally links all parts from production to consumption, he explains.

His studies encompassed livestock feeds and feed production for not only chicken, but also sheep and bovines.



WELL FEEDING AND WELL BEING

This "knack for snack" and the interest into animal well feeding on large scale production has no specific tradition in his family:

My grandparents, like many people in Turkey, have small background farming, rather gardening and at some point also kept a handful of chicken as well, but that wasn't what turned me towards career as nutritional expert, he says.

"I am more interested in the technical side of things, the planning and production processes to put in place to achieve consistent feed quality on a large scale."

The future will definitely provide even more touch points to the world of animals, since Ahmet's wife is a veterinarian.

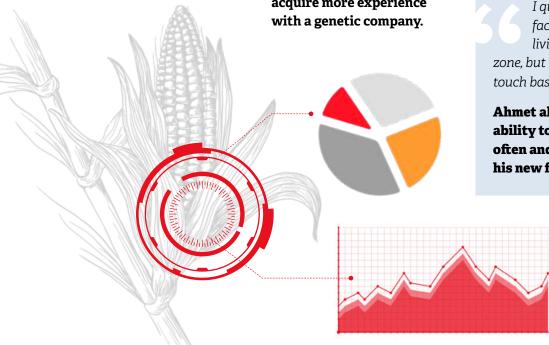
After acquiring his degree in 2011 he joined Matli Yem, Turkey's leading feed company and one of the biggest integrators, producing some two million layers per year.

After eight years with Matli Yem, he chose to work for H&N International to acquire more experience with a genetic company. The global presence and international activities of H&N appealed to me. Because local feed availability and production can be very different and this can be a chance or challenge to local producers. It's a challenge that sort of called my name, and I hope to live up to it, he smiles.

What he also likes is H&Ns style of remote and on-site work.

I quickly got used to the fact that my manager is living in a different time zone, but that we still regularly touch base. It works really well.

Ahmet also appreciates the ability to work from home often and enjoy time with his new founded family.









ince the 1950's
Irvine's have been producing chicken in Southern Africa and the company has grown from a single room in a home to producing over 1,5 million day old chicks per week across Zimbabwe, Mozambique and Botswana.

With roots in Zimbabwe, Irvine's has expanded to cater for Africa's growing appetite for high quality poultry products. The company's vision is to become the leading and most trusted protein company in Sub Saharan Africa through investing in its people, modern facilities and global best practices.

In addition to this, Irvine's believes in constant and consistent communication with all its stakeholders and to this end it regularly publishes internal and external magazines. The external magazine, "Chicken Talk" is published in three languages. Irvine's has been working with H&N parent stock since 2005. (quoted from www.irvineschicken.co.zw)



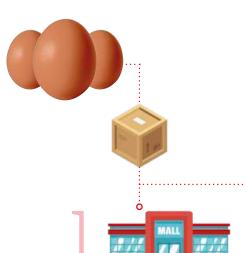
DO WELL AND TALK, TALK, TALK

Irvine's has a strong digital marketing strategy that encompasses social media and web presence which stands apart from that of companies doing similar business.

We strive to stay abreast of the latest trends in digital marketing communications, says Evelyn Saruchera, Layers Executive.

"H&N provides us with good genetics, we are very satisfied with the performance of our layers, especially since the commercial hen compensates well for local feed issues that we frequently have to deal with", she says.

But to become a regionally known supplier of big brown eggs and other poultry





solutions products across sub Saharan Africa, we have to communicate with the people we serve and tell our story.

"The product – an egg – doesn't look too different from another egg, and competition is always on the rise, so we have to find ways of differentiating! One way of doing this is through strong connections with the market through communication and world class execution at the point of sale making our products available, visible and affordable."



Irvine's exports a limited quantity of layer chicks and as an integrator they keep most of the layer chicks to produce table eggs for the formal and informal customer segments.

The formal market consists of modern trade local and regional supermarket and wholesale chains serviced through distributors.

The informal market on the other hand consists of independent stores, small neighbourhood shops and table tops.

Both segments benefit from Irvine's modern and flawless supply chain management.



Successfully running an operation the size of Irvine's also requires strong data management systems and this is solidly built into daily routines according to Saruchera.

We see it as a safety net, we can track ourselves and see where adjustments need to be made to improve our performance, or when we need to increase volumes, explains Saruchera.

At the core of Irvine's strategy is passion for people and the drive to invest in their welfare and development.

"We put a lot of effort to offer a holistic poultry solution, and that, of course, also includes our team." The team is trained and offered learning materials.

"Everybody knows his and her contribution matters. We fully focus on all our team members because we believe that, if people see their contribution and understand the vital role they play and the impact they make, they will be proud to be part of the company and will want be committed and help the business blossom and supply a growing population with the best quality eggs."

At the core of Irvine's strategy is passion for people and the drive to invest in their welfare and development.



To achieve that takes a lot of talking, explaining, reasoning, sometimes arguing, briefing, discussing – in a nutshell a lot of convincing-work at the beginning, which is why Irvine's also started an inhouse newsletter and other inhouse training programs.

"But it's worth the effort, because first you talk internally and then people will buy into the idea and become authentic ambassadors and start to transport the idea further".

And they willingly want to, since also customers become more and more aware of how they contribute to the big picture and take an ever-growing interest into how eggs are produced. Irvine's takes that into account and communicates how and why production efforts are undertaken.



Taking care of animal welfare is closely correlated to productivity. Birds that are fed, reared and bred in a good environment have no challenges in achieving their production targets

"Chicken Talk" summarizes it like here, for example, in edition of 2018:

"Taking care of animal welfare is closely correlated to productivity. Birds that are fed, reared and bred in a good environment have no challenges in achieving their production targets." Communication often may not seem a core part of poultry production.

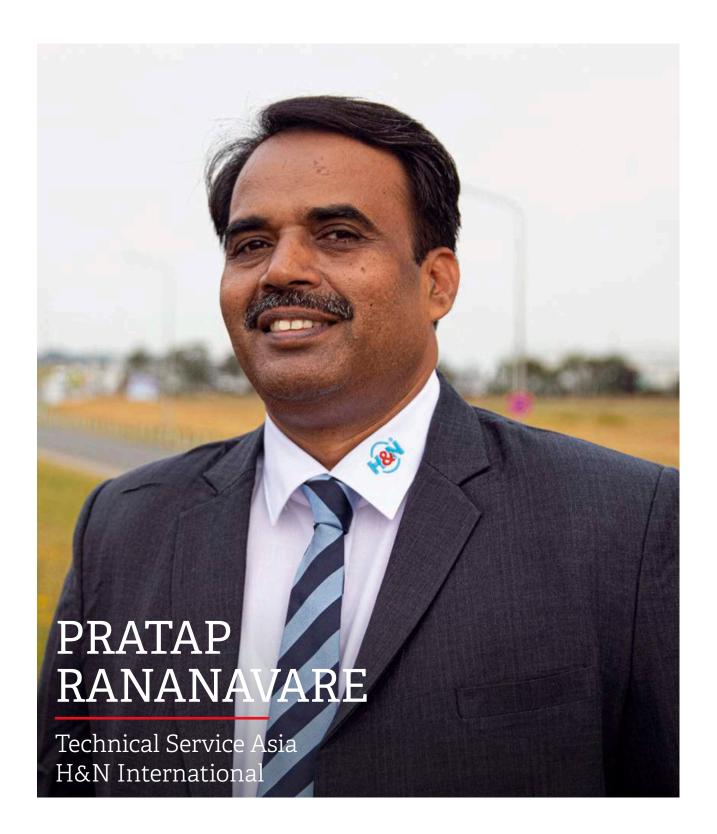
Irvine's work to focus on brand awareness already paid off. The big brown eggs are seen somewhat synonymous with Irvine's and the brand is seen as a regional icon.

But any brand is an animate object and needs continuous maintenance. We need to keep up the good things we're doing and need to keep talking about it so that people stay aware. That's why we keep investing time and creativity into our marketing department, our training and our internal and external communication.

We thank Evelyn Saruchera for the interview.

Evelyn Saruchera Layers Executive at Irvine's





D

r. Pratap Rananavare joined H&N International in July 2019. After graduating from Veterinary Collage Parbhani, Maharashtra India in 1998, he specialized in Veterinary Microbiology and completed his post graduation in 2000.



BIG IMPACT OF SMALL THINGS

When asked what made him choose this career path, he brings up prevention:

During my
Graduation days, I
was very influenced
by preventive medicines or
preventative ways of tackling
Animal Health before any
condition arises. Vaccinology
was a keen interest topic
already during those days.

So he chose a post graduate domain with a profound understanding of vaccines against all small hazardous Microorganism be it Virus, bacteria or fungi.

His research on Newcastle disease vaccines earned him the chance to work for Ventri Biologials, a Poultry vaccine manufacturing company.

This is where my dream came true to discover more about vaccines, he says.

After seven years, he moved to MSD Animal Health in Poultry Diagnostic in 2007.

Working in the technical field now brought the opportunity to deploy the full gamut of his core vaccinology knowledge for the betterment of poultry Industry on the commercial scale.

2007

Incarnating the bridge between theory and practice

In 2019 a new opportunity arose, that offered to connect special knowledge with commercial applications. "I am a practical person and always ambitious for a subject's in-depth potential, that when applied to poultry industry, can achieve a quantum leap for safer production and better products", he explains.

I always wanted to bring knowledge to the industry that would benefit from it. You could say I seek to become the very bridge between the theoretical knowledge and industrial application.

Now working for H&N International brought him one step closer to the core of poultry business, the genetics. "I realized the power of "N" because our genetics team had great potential to come out with excellent product lines."

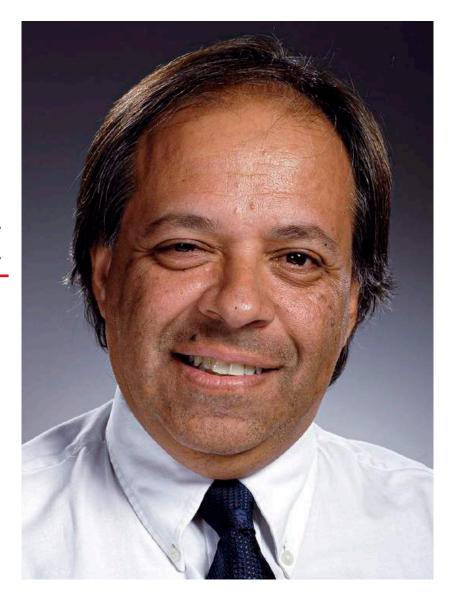
He also appreciates the collaborative, open work attitude. "I feel I can put to use my last 20 years of knowledge and expertise, and really help our customers to exploit the maximum genetic potential within our birds."

At leisure, he likes to spend quality time with his family. Whether trying out new recipes and delicacies as an enthusiastic chef, reader of Marathi literature or on trekking tours on the foothills of Sinhagad, Pratap enjoys an activity-loaded life.



RONALD TRENCHI

Technical Service Latin America H&N International



multinational like H&N is both: young and old. A global brand that has been around in world markets for quite a while and that literally co-defined the DNA and company successes of other great names such as Pfizer or Lohmann.

With becoming independent – again in the H&N history – from LTZ in 2019, H&N officially came back to center stage and into the lime light.

And within the H&N anniversary of 75 years, there is another anniversary: H&N proudly celebrates Ronald Francis Trenchi as, Sales and services technician Latin America, our field specialist with the longest history.

When exactly did you join the company?

I joined H&N International in March 2000.





ANOTHER ANNIVERSARY

What was the reason to change to H&N back then?

Without any doubt it was getting the chance to work in H&N itself. It was an incredible offer that had the potential to help me further develop my professional career.

What is your role and specialization?

Therefore, when I got the offer, I immediately decided to accept the position.

I am a sales and services technician in the entire Latin American region. My background is in veterinary medicine, hence as a technician I primarily focus on disease prevention and product development.

And as part of a global, multinational team of specialists I can pull in colleagues whenever appropriate, so we always cover both ends: local and global. You have been on board for almost 20 years – when you think back, what was the biggest change you witnessed in the market? And in the company?

It is important to state that the egg market, as any other market in the 21st century, is always changing quite dynamically as costumers are continually seeking for better quality standards and more innovation.

During these two decades, the market changed in a significant way.

In this sense, I identify two important changes. The first big transformation was in the efficiency of the product. After two decades, layers' productivity went from around seventy weeks up to one hundred weeks of productivity.

Second, during these two decades the market became extremely aware about food safety and animal well-being. H&N was able to cope with these market needs and at the same time propose new ideas to improve the product performance and offer customers far more reliability and safety in production planning.

After two decades of hard work, the company gained presence and a solid market share in Latin America.

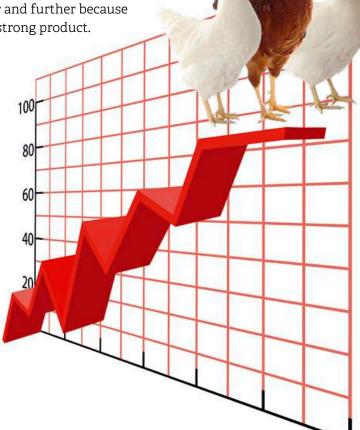
After two decades, layers' productivity went from around seventy weeks up to one hundred weeks of productivity.



What are you most proud of or happy about when you look back?

I am very happy of the fact that my work covers areas I truly like and that I can set all my expertise and knowledge to work for our customers. When H&N hired me back in 2000, the manager told me that they knew what I could do as a veterinarian but that they also wanted my sales and consultancy skills' on top.

In this sense, after 20 years I can say that I was able to develop these sales skills further and further because of our strong product.



As a veterinarian I understood immediately that H&N gave me a high-quality product that would basically sell itself because it really gets you very convincing results.

We can proof this with hard facts and performance data and customer case stories. I knew I would be able to offer a truly good product that needed no sales-lingo or tricks. I could simply explain and show the quality of our birds without ever needing to step away from my values and beliefs as a veterinarian. No marketing can make up for a bad product, but that's what marketing so often tries.

Our H&N birds don't need that, because they speak for themselves – I basically just translate their benefits and performance into Spanish and introduce them to our markets.

Therefore, in my position I am able not only to work in the field with the animals but also to understand the business and help our customers make use of these great birds and succeed.

With your long-term experience and background: What would be your advice for working in the field successfully?

Sometimes we get the question why our marketing style is different from other brands. That's because we first like to open our ears and hearts to our customers rather than our mouths first. Our customer centered philosophy is to listen first and then offer a solution that truly works safely and in the long run.

I think it is extremely important to listen to the customer and put yourself into the customer shoes to fully understand his or her problems, ideas or concerns.

Not only they will appreciate being understood in their individual situation, but also you will get to comprehend the full picture and hence you will offer a more intelligent business decision based on robust data and true knowledge.

What else would you like to say?

H&N still has plenty of opportunities in the Latin-American market. Over the years we have established a great multidisciplinary team that is fully capable of overcoming any challenge, because we share our experience, combine knowledge and specialties and we jointly and dedicatedly work towards a common vision which is the delivery of the best service to our customers, always and wholeheartedly.

I think it is extremely important to listen to the customer and put yourself into the customer shoes to fully understand his or her problems, ideas or concerns.













he founding
of Prodavi,
Switzerland, goes
back to 1988, and
since 1996 the
company ongoingly works
with H&N parent stock.

While producing sustainably under the seal of Swiss Quality in a small, very developed market, the company is dedicated to transparency, listing all partners, customers and network stakeholders of the production chain on their website.

Swissdom

Andreas Suter, deputy CEO and head of hatchery and logistics at Prodavi, and his team around CEO André Hodel leave nothing to chance.

When we started to consider developing our company from breeding, and integrating the hatching part of business, our greater goal was to establish a flawless production process that always delivers on the Swiss seal of quality" he explains.

Only eggs of layers whose parents have already been imported as a day old chick - they are hatched in a ps-hatchery from H&N.

Swiss Made is synonymously used to quality, and Swiss Made products enjoy highest reputation worldwide, Prodavi makes no difference of that.

It doesn't take magic, but it does take unwavering dedication to detail and a passion for precision to make things work like Prodavi.



Planning Precision Passionately

The Swiss based company started to work with H&N some 25 years ago. Before, from their founding in 1988 until the early 1990's, Prodavi started off as producer.

The decision to elevate the business also to hatching and rearing was in the founders' mind already then, Suter recalls.

"But we didn't know where to get good chickens from."



Because it would take birds fit to meet the high "egg-xpectations", and likewise reliable support for fast and sustainable solutions whenever needed.

Good genetics is one thing you cannot alter. What you can alter, model and optimize is the management of each production step from importing and rearing parent stock, hatching and rearing layers and onwards to your customers and linked into their production.

A supply chain approach that dovetails supply partners and their economic goals like a Swiss clockwork.

Data mining, data exchange, forecasting and

delivery is a key requirement or the supply chain can break apart again.



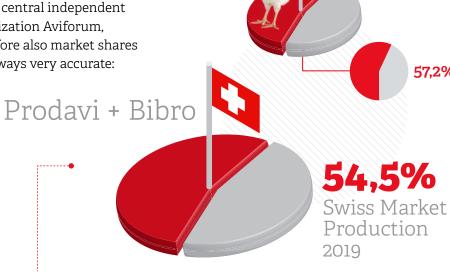
Under Qualities' Regency

Doing business in developed markets is different than in developing countries, but it's not at all easier. Quite the opposite is true: Expectations are very high.

And at the start we were faced with a small market in a small country that seemed already oversaturated with some ten other hatcheries present in Switzerland in the early 1990's. recalls Andreas Suter.

"So we first sat down together and discussed our thoughts. and how we could master our decision to make it better than all others with H&N in this market, how to avoid common challenges and set ourselves apart successfully. And what it would take to develop our business solidly on such premises".

All chicks produced in Switzerland must be reported to the central independent organization Aviforum, therefore also market shares are always very accurate:



In 2019 Prodavi produced 53,8 percent of all layer hen chicks in Switzerland, not factoring in **57,2 percent** produced by organic sister company Bibro.

Together Prodavi and Bibro supplied **54,5 percent** of all layer chicks to the Swiss Market 2019.

Salmonella and Marek's Disease were huge issues back then throughout the 90's.

The Swiss market consolidated ever since to now only two big conventional hatcheries across the entire country today. Prodavi is one of them.

Most hatcheries had big problems. And we knew we could only avoid running into these as well by doing every production step ourselves, starting with hatching our own birds. Only then we'd be able to consequently apply the strictest, most meticulous quality monitoring possible to each step, in fact, our very own.

The final decision to give it a go was made in 1993, and the search for partners for parent stock began.

Investigations Before Taking Investments

It wasn't easy to find out where to get good parent birds, recalls Andreas Suter.

"And once we found out, it wasn't easy to negotiate the partnership that now exists since 1996."

H&N was still in the United States back then.

But we were determined to base our future on genetics that would perform well. And we were lucky to also be able and count on the help of one of our veterinarians Dr. Lifschitz, one of the best and most experienced poultry vets in Switzerland, who worked for us and became a real door-opener, he connected us to the right people at H&N.

It took some time to build the business in the way the Prodavi team wanted.



Being able to work independently and taking our own decision really mattered to us. We did not want to get too attached to a monopolist. We wanted to preserve our freedom to move things the way we wanted and into a truly new direction that also allowed designing our own production monitoring and logistics.

It was pioneer work, but it was excellently planned and thought through, and that now keeps paying off.





Good Bye to Spread Sheets

Thinking things through from start to end implied monitoring.

Working the entire supply chain well demands to be able and see into each step ideally in real-time, explains Suter.

The need to invest not only into production related machinery but also into digital development was set from the start.

To allow for flawless logistics and to-the-point delivery and on-demand-dispatch to his customers, Andreas Suter initiated and rolledout a computer program of his own in collaboration with an IT-company.

Right at or very shortly after every customer visit our field specialists file the data into our own detection system.

The system works with a traffic-light visual: **green signals** everything on track and running smoothly, **orange** means there's an issue which is already in treatment, and **red** would signal an alert requiring immediate attention.

However, thanks to our system, red is seen only very scarcely. It's thanks to our system that enables every other colleague to assess problems and align forces where needed in real-time, says Suter.



Not enough, he subsequently integrates even more production data, lighting, feed intake etc. to allow for even more automation and still faster reaction time.

Spread sheets are still used as hatchery ledger and we kept them also as a back-up as long as our software solution was still in test mode. But manual controlling always requires time. Besides one colleague may have just finalized his or her work and with the next entry the sheet needs to be adjusted yet again.

Vehicles and drivers on stand-by accoridng to logistic surveillance concept

Logistics/ Transports

Horizontal Quality Management by applying rigorous Hygiene- and Surveillance Concepts on all Levels

> Rearing of Parent Animals

Parent Stock Companies for Hatching Egg Production

PRODAVI Hatchery, Buttisholz CH

> Rearing of layer hen chicks

Egg Producer keeping layer hens for consumable eggs

Quarantined Rearing of imported day-old-chick Parent Stock under surveillance concept for Parent Stock rearing

Parent Stock Laying under surveillance concept for breeding egg production

Isolated Premise for chick production, process and surveillance according to PRODAVI Quality Control

Decentralized rearing companies, that have been selected according to PRODAVI Quality Control

Farm Production producing consumable eggs, controlled by PRODAVI layer hen concept and PRODAVI Quality Control

Vertical Quality Management by flawless controlling of all preliminary levels

Egg processessing and egg sales





On Time and at the Pulse

Dedicated data evaluation may sound dreadful, but it really can put you ahead by allowing tracing and forecasting.

Andreas Suter and his team literally know each step of each chick from importing parent stock onwards.

Prodavi runs their own fleet of delivery trucks and logistics processes, too.



We simply don't compromise our premium product. We are in the lucky situation to have a well-developed infrastructure and a very well-informed demanding market, which does not mean that such a market is easy to be satisfied, it's as difficult as any, because we want to meet and exceed our customers high expectations.

So, we simply do our best to keep offering the best.

We thank André Hodel and Andreas Suter for the interview.



André Hodel CEO & Sales Manager at Prodavi



Andreas Suter CEO & Head of Hatchery and Logistics at Prodavi





H&N HISTORY



very journey begins with the first step.
Art and Mary
Heisdorf kept track of their journey,
collecting newspaper articles, adverstisements or marketing collateral in a big brown heavy book with honorably yellowed pages and a chicken embossed into the leather on the front.
Was the book custom made like this, because Art and Mary knew they would write history? I can't be told for sure any more.

Leafing through the book today is marvellous, it brings back memories, proud moments, poultry conferences, beginnings and substantial changes in marketing over a period of some ten, fifteen years

"Our first advertisement" is written aside the first entry in the book. It reads a bit like "our first baby", and you can't help but share that particular feeling that Art and Mary did what they did with all their heart.

The book is too big and filled with too many treasured moments and records to replicate it here in full. But what you look at is some 10 inches of recorded history. Looking at the book from this angle reminds a little of the annual rings of a tree disc and it also shows nicely how Art and Mary grew the business from their estate in Wisconsin to Worldwide.

The key to your profit

The commencement of our company goes back to the year 1936, when the founder of H&N, Mr. Arthur Heisdorf started his career as a geneticist for Kimber Poultry Breeding.

1945

1936



Mr. Heisdorf left Kimber Farms to start his own poultry breeding company near Seattle, WA – U.S.A. He started selling Kimber strain Leghorns. At the same time he began importing samples of stock from leading breeders from America as well as from Europe and Japan. He crossed them with Kimber Leghorn and found one that "nicked" (combined well) with the Kimber Blood. That was the foundation of "Nick Chick" Leghorn.

The brothers Bert and Cliff Nelson became partners in the business with Mr. Heisdorf.

This is the origin for the company name H&N; H for Heisdorf, N for Nelson.

1947

1952

Mr. Heisdorf buys interest of the Nelsons



The breeding program was changed from one of pure line breeding to that of recurrent reciprocal selection. It involved the selection of pure line families based on the performance of their commercial offspring's.

This was a revolutionary departure from the basic poultry breeding technique being used at that time. The company now incorporates as Heisdorf & Nelson Farm Inc.

The next step was to develop franchise distributor hatcheries in the U.S.A and globally. Parent Stocks were supplied to franchise hatcheries so that they could produce H&N "Nick Chicks" too. 1955





A research laboratory was added. This was one of the first privately owned facilities devoted exclusively to the study of poultry diseases and research.

1956



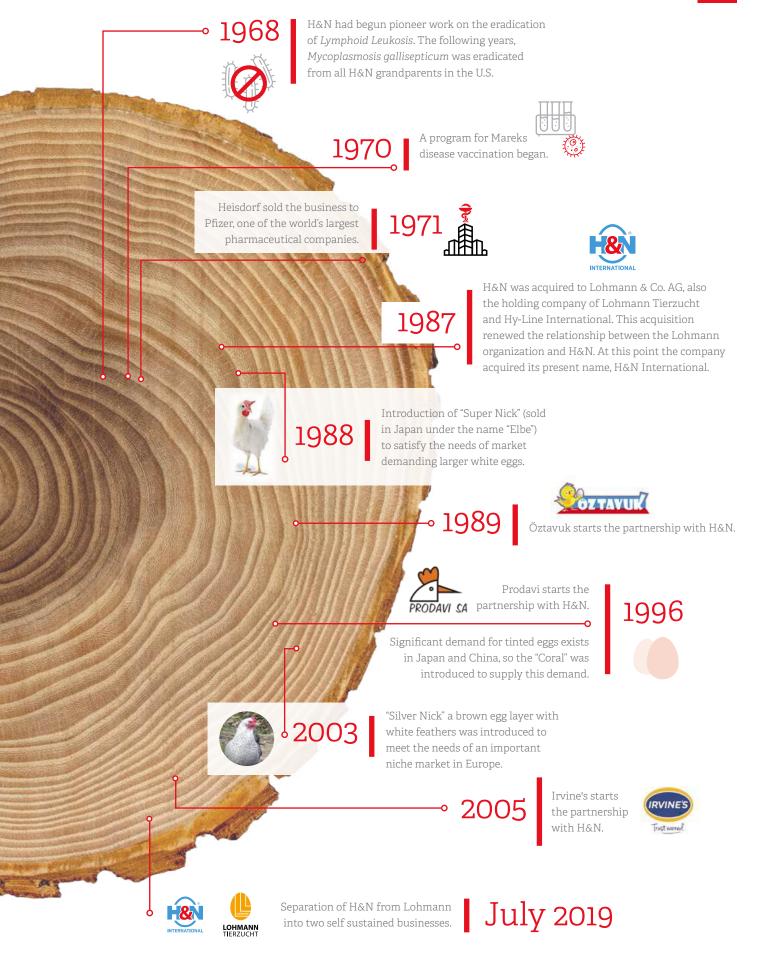
Electronic processing of data initiated by the breeding program has begun. Licensing agreement was reached with Lohmann & Co., Cuxhaven, Germany to distribute "Nick Chick" breeding stock in Europe, Middle East and Africa.

A breeding farm and testing program was established in Cuxhaven. This marked the beginning of the Lohmann poultry breeding program and the start of a business relationship that lasted until 1978.

1959

1965

"Brown Nick" was introduced to meet the growing worldwide demand for brown egg layers.









Management team of FtF

TRIBUTES TO PARENTS

here's a
perception of a
gap in life, that
we all know: It's
between past and
future, tradition and progress,
parents and children. It
doesn't take a crisis to bring
the gap to mind. Any change,
any attempt, any opinion to
do things differently, will do.

Suggesting a change seems to question the honorable basements of tradition and of those who build it. Change contains criticism of the status quo – if others suggest it.

If you are the one to bring the topic to the table, because you are equally visionary like for example Columbus or Da Vinci, you may feel smiled at or criticized but surely tied down by those refusing your idea for change.

Sounds familiar?

It's like singer-songwriter Cat Stevens', better known as Yusuf Islams' song "Father and Son" (featured in "Tea for the Tillerman", fourth studio album released in November 1970).

While he recalls that his own father would pretty much let him do what he wanted, the artist wrote the song more "for those, who could not break loose".

And maybe also for those who don't easily want to because they've established a business together and want to see it develop and thrive over time.

That implies careful consideration. And movement: from now to tomorrow.

Movement implies change.

And even if from now to future doesn't necessarily mean from good to better, the simple fact that continuity is the path from now to future means that things can get into the way.

56

Standing still is no option since time won't, either.



Been there, seen that

Preserving and re-using experiences is a very different attitude, because it's up to you to make an educated decision about what to use and what to leave behind. Or use on a different occasion better suited.

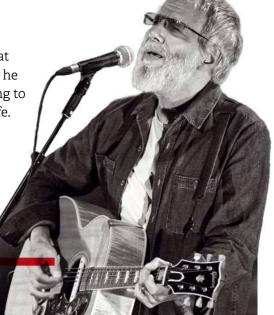
In any way you'll "think a lot, look at everything you've got" to quote again, and then you decide actively and mindfully based on as much information you can possible get your hands on.

Had humankind devoted itself to preserving tradition as the only, the sacrosanct greater goal, we'd probably be carving any mails with our hand-ax.

But humankind is capable of change. Singer-songwriter
Yusuf Islam, formerly Cat
Stevens, born as Steven
Demetre Georgiou, is a great
example. Not only because he changed his name according to meaningful stages in his life.

He wrote "Father and Son", as a dialogue between young and old:

"It's not time to make a change! You're still young, that's your fault. There's so much you have to know."



This image was originally posted to Flickr by Bryan Ledgard.



Is youth a fault only redeemable by aging?

Seniority and age are often used synonymously for richness in experience. Experience is information, knowledge, things you have seen and done and that you now rely upon.

However, you can get information and support to make sense of it no matter how old or young you are. Youth is neither fault nor excuse.

So, are seniors the true problem? Are they like anchors, able to provide safety but also to impediment?

I was once like you are now. And I know that it's not easy, goes the song.

Neither is sailing on at tensed anchor cable or just swinging at anchor, getting around but not getting anywhere else. Here is the thing: Our predecessors and parents, our seniors all know. They know, because they once were young, too.

But no matter how old or young we may be: The actual question is how to make an educated decision based on thorough thinking and well weighed, valuable information?

Take your time, think a lot, think of everything you've got. For you will still be here tomorrow, goes the song.

It's the tomorrow that defines the game. What will be important tomorrow? What successful changes where there in the past that brought you to today? And what changes do you need to make today, for "you will still be here tomorrow"?

Change sounds like chance. And like chant - and it's the chant, the song that bridges the perceived gap and unites the generations. whether you play it on an analog or electrical guitar, it's still the same song of a business both young and old would like to see developing and thriving also tomorrow and beyond.

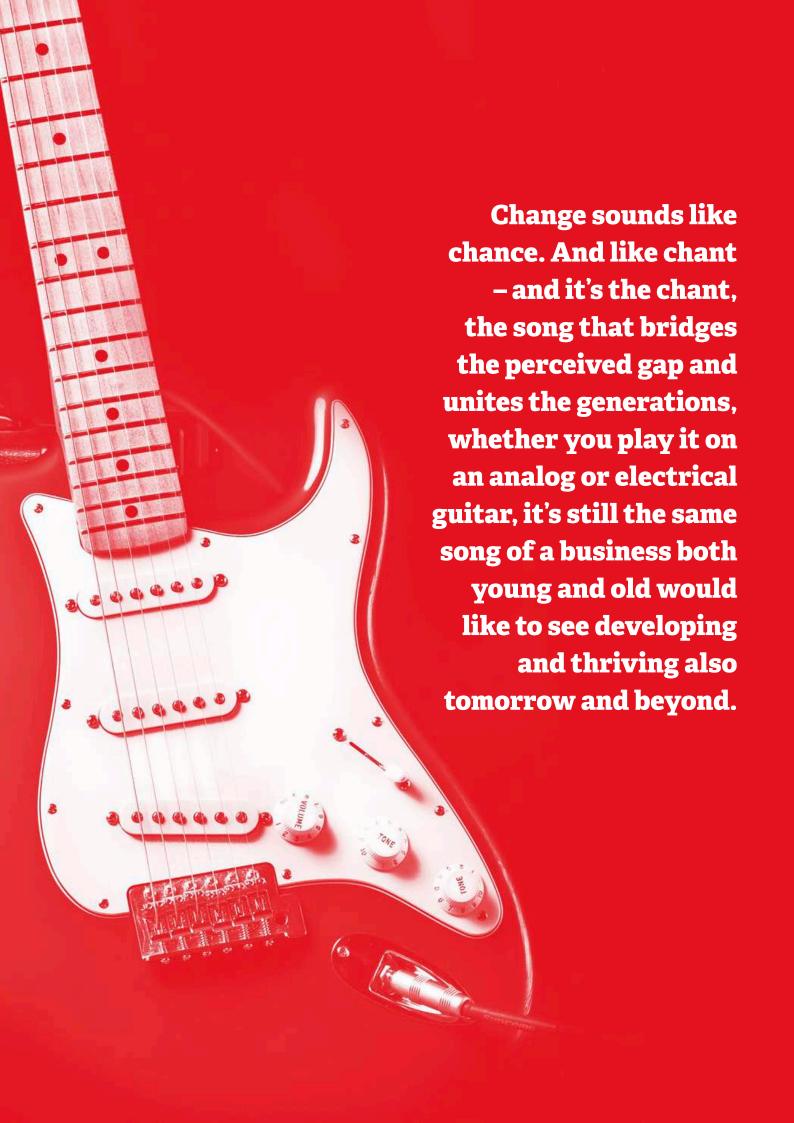
Saskia Riedel
Marketing and Communications
H&N International





Kira DöhringMarketing
H&N International







pending time on his grandmothers' farm during summer holidays initiated a career in Veterinary Science and Nutrition.

I guess something got me then and I carried it with me until I had to decide for the subject. Once in the veterinary university, I saw that veterinarian work of dogs and cats' life wasn't really my thing, recalls Arbe.

He says this was because tending to mostly pets and four-legged family members seemed of different impact than health management for livestock:

Which, of course, should be tended to in equal good quality like a vet would do for any animal!". But livestock management is a "different beast" with bigger, many more and more far reaching responsibilities! So, I decided to focus in livestock.

The nutrition part was a very interesting topic within it. It resonated with me, not only because I like cooking, but because of the implications that feed has on the entire production process and on the product itself.

We eventually eat, what we feed. It's clear that feed management has to receive special attention, he says.

DEALING WITH A DIFFERENT BEAST

He joined H&N from Novus three years ago. After staying nine years at Novus in different roles and assignments, he felt it was time for a change.

The chance of working in a genetic company with long tradition and innovative prowess seemed very tempting. And getting back to the layer industry where he had started working was another factor that made him jump ships jobwise.

He took the additional responsibility of Business Unit Manager at the end of 2019 to improve the support of the existing customers and grow the business.

H&N is a balanced mix of tradition with innovation and it's the teamwork and the variety of people that forms a very dynamic and agile team.

And that makes you enjoy where you work. Our meetings are never boring, and they are always full of interaction because we value agile collaboration and the exchange of different perspectives to come to best solutions, Arbe says.

We aren't a big team, and the fact that we are based all around the globe strategically anyway means that we are quite used to working remotely. Currently ten specialists serve and consult customers around the world, so usually Arbe traveled two weeks per month.

It is of crucial importance to be with customers and friends around the world whenever possible, to interact on a personal level on site or digital where onsite isn't possible, he states.

Whichever channel. H&N always seeks personal interaction and true mutually beneficial dialogues.

As a nutritionist who also likes to cook himself and who lives in Bangkok, Thailand, with his family, one of his favorite dishes origins from the Basque Kitchen: "Hake kokotxas".

The hake is a fish highly appreciated, and the bottom of the chin of this fish is enjoyed in a special sauce that is made from olive oil and the gelatin extracted by slow cooking the fish.



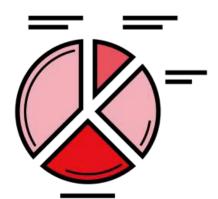
◀ Hake cheeks, brussels Source: www.tour-magazine.com



INDIA ASA MARKET

India's diversity in arrears like its innumerable beliefs, cultures, traditions, food habits and most importantly its geographical vastness are the notable features that make this market so complex and interesting.

According to me, a population is equivalent to its opportunities.



ost of the world business is looking towards India as a huge business opportunity due to its approximately 1.30 billion consumers to date.

And that number is growing every year. Young people between the ages 20 to 40 account for the lion's share.

This signifies the increasing need for educational institutions, health facilities, etc., due to which the spending capacity of individuals is increasing day by day.

But not only that. Even today, for any individual in the world, food, clothing and accommodation as owner or tenant are basic life requirements.

If we consider the first essential requirement for a human being, which is food then I think that the layer bird offers a solid, reliable and steady supply of an affordable, natural unadulterated protein source.

In the past decades, India predominantly depended on vegetable protein sources. But in the last few years, the situation has flipped to the other side of the coin where people are giving preference to animal proteins and eggs as a protein source.

Most of the world business is looking towards India as a huge business opportunity due to its approximately 1.30 billion consumers to date.





THE HUNGER FOR PROTEIN

India currently is the thirdlargest egg producer in the world after China and the USA. The per capita consumption of eggs has gone up from 30 eggs per annum to 68 eggs per annum.

And consumption of chicken meat rose from 400 gms per annum, to 2.5 kg per annum in the last 5 years.

Human nutritionists generally recommend a minimum of 180 eggs & 10 kg chicken per annum for a healthy adult human, which means that the Indian poultry market is laden with future opportunities.

As a comparison:

The adult

population in most developed countries consumes over 240 eggs and 20 kg of chicken per capita and per annum.

How to raise Productivity

To date many production facilities and methodologies followed by the poultry farmers in India are not yet in line with international standards.

A good majority of the poultry farms in India are open buildings with no climate control or quarantine mechanisms in place, which exposes the birds to various climate variations as well as to potential diseases and epidemics.

To mitigate the risks posed by that, the density of birds in farms have to be kept low, which in turn negatively affects the productivity per farm.





Robust - A must

To change that and protect both farmers and their livestock, robustness as a genetic characteristic in the birds plays a crucial role in such dynamic situations. Approximately 70% of all countries keep layer birds in cages and open houses. H&N birds show their robustness in both such conditions, as they can handle various housings.

As a Veterinarian I can say that all birds are susceptible to flaws in biosecurity or diseases equally, no breed is completely immune. However, a robust, sturdy bird will have a more stable health, if treated with due diligence.

H&N birds perform extremely well in almost all different climatic conditions such as cold, extreme hot or desert climates, but also in humid and rainy conditions.



Importance of storage and flawless cold chain

More than 60% of eggs produced in India today are produced in 6 states (Andhra Pradesh, Telangana Haryana, Maharashtra, Punjab and Tamil Nadu).

Birds are currently transported alive between the states in often improper conditions that kills many of them during transport.



Transporting poultry products of good quality within India is a logistical nightmare due to a lack of dry processing and cold chain facilities.

Logistics is one important risk in all parts of the world, since everywhere in the supply chain many things can go wrong. To minimize risks logistics should be accompanied with better monitoring facilities.

But implementing and facilitating improved logistics for improved product quality will definitely be a long-term process with many stakeholders.

Even governmental policies should be broadened and amended when it comes to animal welfare schemes.

Also, the road networks reaching to the very doorsteps of the poultry farms influence logistics as well as the vehicular requirements in terms of international standards like temperature maintenance... the list seems endless, but in the end it's about being able to produce and eat a locally produced natural quality protein product.



Speaking of which: Quality feed

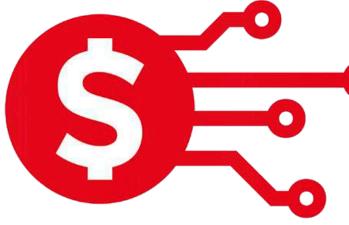
Volatility in feed prices is one of the biggest challenges in the country, if farmers aren't protected by fixed feed price conditions. Maize and soya together constitute 90% of feed ingredient and the Government is supportive of GMO maize and Soy for higher yield and low cost of production. In fact, soy bean and maize are widely utilized by poultry farmers in India as the main feed.

However, these help only in fulfilling minimum nutritional requirements, and do not help in raising high quality, healthy birds. There is a shortage of quality feed in the market combined with a lack of knowledge about the benefits of using quality feeds.

Feed accounts for some 70% of production cost. It may seem tempting to compromise on this cost factor. However, using quality feed is a risk-insurance. Compromising on feed is like filling up a Ferrari with salad oil because fuel seems so costly. Salad oil can make the motor run, but will have negative effects on the car and destroy the original investment.

Likewise, compromising on quality feed will drastically lower the potential of the birds and thus endanger a planned production success. The benefits of quality feed can't be underestimated. It's very true: "AS YOU SOW, SO SHALL YOU REAP."

The benefits of quality feed can't be underestimated. However, it will require transparent explanations and support of these interdependencies to support farmers in factoring in income over feed costs and rely on solid, sustainable production – getting all horse power or rather chicken power on the street!





Quality standards of farm management

For the domestic market today, there are no quality standards in farm management in India. Neither are any prescribed by the Government nor by self-regulating industry bodies.

This results in a lack of comprehensive regulating authority to maintain hygiene in farms, processing and transportation.

Licensing of farms is done on a municipality level, where, people may not have access to all necessary knowledge, expertise and human resources to strictly enforce quality standards.

For export markets however the Agricultural and Processed Food Products Export Development Authorit (APEDA) (optional if in sync with H&N messaging; (link: http://apeda.gov.in/apedawebsite/about_apeda/about_apeda.htm) has imposed strict quality standards and regular audits to ensure that quality is maintained according to international standards.

The task at hand is huge, but from the APEDA standards we can also see that it is possible.



View link to Agricultural and Processed Food Products Export Development Authorit (APEDA)



The true meaning of investment

To get a return on investment (ROI) you have put something in to get more out of it. In simple words. Also getting a maximum output with minimal investments requires to define well how much investment into the system is needed, especially when juggling financial constraints and inadequate standards.

You must plan even better, because you walk a thinner line.

The good news is that farmers can utilize what well defined quality resources for farm management are already available to them. They can rely on a three year contract with holistic services and support to help them manage it all well within their boundaries.

We've highlighted that it also takes governmental and traffic developments, but much of the challenges in poultry production can be eradicated by proper management.



strict vegetarian diet and won't eat any eggs during certain holy months in a year.

The demand for eggs decreases drastically in such periods, which leads the farmers to try and earn at least their production costs back.

Market stabilisation funds and MSP (minimum support price) may be future- answers to help trade move forward.

The concept of riskmanagement, prevention and insurance is not widely known amongst mid-size and small customers.

that should be taken care of.

Working in cooperative groups amongst other small industries could help them fight together in a better way during times of financial crisis. This could also aid them in having a better outlook and foresight during hard times.

Collaboration, sharing of risks and experience could be an innovative model for small scale industries.

And, of course, to use the knowledge already available and offered by genetics.

Focussing more on marketing instead of just on production is another future pointing thought, especially in a complex, dynamic country like India.

Currently in India most of the producers are just focusing on production and not on marketing or distributing their product to the end consumer.

Farmers should develop their end product as a brand from commodity and build a relationship with their customers that will result in an installed customer based of trusted buyers.



Changes in local Diet

India has been a vegan country for the past decades, but that is changing.

Marketing will help to eradicate the myth of an egg being a nonvegetarian item to consume.

Thus, it becomes a crucial part to lay emphasis on marketing by the producers.

Not only this, in India eggs of various weights are priced to the same amount unlike in other countries where consumers are charged different prices according to the respective weights of the eggs.

If pricing is amended and health benefits of consuming eggs as opposed to other animal products especially in a formerly vegan market are more widely understood through marketing, people will look more positively towards eggs.

This all goes back to the start, and the producer will be forced to look for better genetical makeup of the birds he or she is working with.

The 'LIFE IN THE FAST LANES" we're all experiencing one way or another has an impact on all of us in various ways. So, to enjoy it, never forget to focus on your physical and mental wellbeing.

Packaging,
advertising
and content
communication all
play a vital role
in gaining a better
understanding, too.

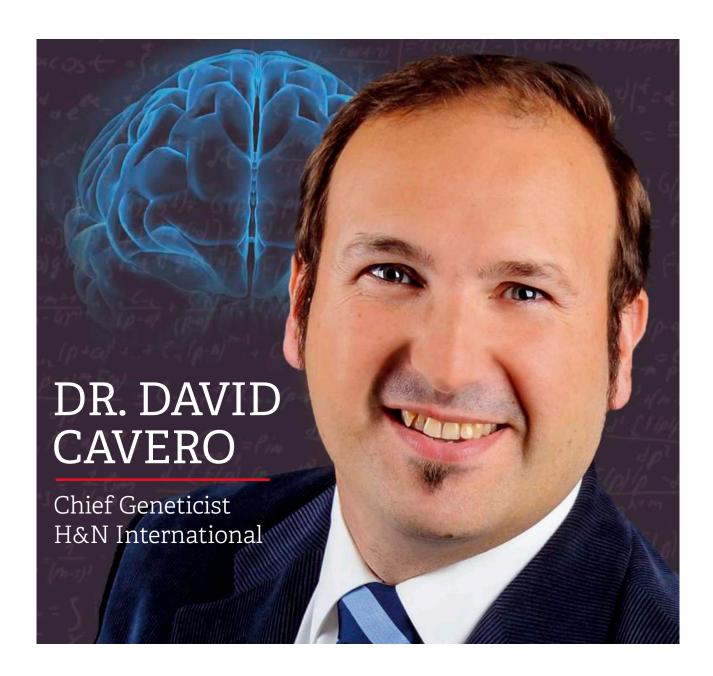
A healthy way in my view would be eating a minimum two eggs per day*.



*given that egg products are contained in various other products like cakes, bread etc.







hat made you choose this career path?

I am a science "Mensch" (german for "human being" or "person"). I simply love "to play" with data and extract from it relevant information that then is used to take actions to improve things.

I always wanted to be an engineer since childhood. And although I started Agriculture Engineering, I never thought that I would end up working in animal breeding. Looking back in time I rather invisioned my future self working with engines, constructing agricultural buildings and roads and designing watery systems.

But in life you have to be flexible – adaptable like H&N parent stock and the descendants - and by lucky chance I ended up in the layer breeding industry, and I'm now happily working here since more than thirteen years.

You entirely moved over to H&N in 2017. What made you take that step?

As I started to work for the company thirteen years ago, I was working for H&N and Lohmann. With the time H&N was growing in importance and required his own personality, there was a strategic decision to split it from Lohmann and create an independent business unit.



THE SCIENCE MENSCH

I got the opportunity to take care of the H&N breeding program and I didn't think it twice.

It was quite easy to move on, since I already knew the program, the colleagues and the customers. The bird was performing very well on the field.

But now it was also time to develop a new team that would take care to give our customers the best support in the field and to strengthen the H&N brand in countries where the H&N birds were not present yet.

That was a great challenge, but I love challenges. Furthermore, we got the opportunity to develop and implement our own ideas and do things in a different way. And you don't get this opportunity every day!

What do you like about H&N in particular?

You are in very close contact with the customers worldwide, which normally are of moderate size and therefore have a big potential to improve and grow. Also they are willing to take on the challenge with us, they like to hear, learn and work together.

There is a new, young, multicultural and very motivated team assembling and there is freedom and leeway to develop new ideas. There is a big potential to grow and strengthen the name of H&N, that's really stimulating!

You have been wearing two hats, Chief Geneticist and Coordinator of Global Technical Services – How did the two combine on just one human head?

Well, I coordinated the Global Technical Service for two years. Now Xabier Arbe (H&N Business Unit Manager Technical Services & Support, Chief Nutritionist) took over responsibility for it.

My time as team lead was exciting and expiring... It was also sometimes exhausting because we moved many things together.

But at the same time it was great to exchange ideas with customers from different countries and at the same time try to fine tune the management of the birds and resolve problems on the field.

I still like to be in direct contact with the customers and exchange experiences frequently with my colleagues to discuss what is going on in the field.

In my opinion that is crucial: If you want to select the right bird, you have to understand what is happening in the market.

Also what future requirements and problems will be surfacing that the egg producers will have to deal with in future.

It sounds like a crystal ball or a magic wand may sometimes come in handy!?

I wouldn't go so far, pure nature is already all magic in itself!
But I do like looking back in time and beyond, that's for sure.
For example I like historical thrillers, like *The pillars of the Earth* from Ken Follet or *The physician* from Noah Gordon;
The eight from Catherine
Neville or *The assassination of Pythagoras* from Marcos Chicot.

However, one book will remain always very special for me *The Never ending story* from Michael Ende since it was the first book (at least the first that I can remember) that my father read to my sisters and me during our childhood when we went to bed.

The adventure, the time concept and the creation and re-creation of that parallel Universe from a small spawn somehow encompassed and preempted Genetics without me knowing so yet, back then!

We thank you for the interview.



I SEE YOUR POINT

FORMING THE BIG PICTURE FROM GLOBAL PERSPECTIVES



XABIER ARBE

Business Unit Manager, Chief Nutritionist H&N International

emotely managing a global team located in different time zones around the world requires special capabilities since:

None of us can just simply swing by our colleagues and discuss matters over a cup of coffee, as Xabier Arbe says.

Some 75 percent of his work time is via digital channels and through the displays of computer or mobile phone. And that is not just so in times of home-office. Here's how he makes it work:

As nutritionist and team leader you're wearing more than one hat. And you work across threetime zones. How to tame a monster task?

We all rely on digital technology, like almost everybody else in one way or another. Recent developments even keep pushing many more things to online channels and reinforce different ways of interaction.

Some companies were already pretty used to digital collaboration, others are digital newcomers, many of whom have a tradition in a very hands-on way of production.

But the true core of managing any team or interacting in a personal, partnering way with customers, remotely or not, lies in the quality and quantity of communication.

Regular facetime is crucial, when you are working in a long-term business like ours. When you have to set expectations and define the projects to achieve them, so the team can follow up in a target-oriented way.

The digital technology only helps you to follow up and adapt more quickly to any changes in the plans due to the changes in the market. I see it as a very strong enhancement for personal collaboration, but never as a replacement.



How to align different global perspective behind one goal?

Bringing different observations together not only means to see far more aspects and a broader gamut so to speak. It also means an experience of sharing as different people work towards one common goal. Difference has the potential to unite people if it's shared.

The ability to share and discuss is enriching the way how a team can solve problems in the best possible way and react to any challenges fast.

Respect of somebodies' viewpoint means to simply look at something and try and understand it. Not sharing, not talking, not asking for things, not asking questions, not showing interest means to not take that look at all.

Be unable to take it or actively be un-wanting to do it makes a big difference. Because respect is also interaction and taking genuine interest – into ourselves as well as our customers.

Because we absolutely want our customers to succeed, their success is our success.

We don't want to just be a delivery company: we want to be partners to our customers, and help them to be successful in the rearing and the entire production so they can deliver the finest day-old layer and best laying hens in the market.

We always stand by our customers sides to support, minimize and prevent risks and react to any unwanted developments fast to put their business back on track.

As the suppliers of adaptive, highly specialized birds we are overly aware of all potential risks and flaws of the business. That's why we want to stand shoulder to shoulder with our customers, that's why we want to help to foresee challenges and pre-empt risks as best as possible.

We team up not only with our H&N team members but with our customers alike. We know that breeding layers is a complex business that can bear great profits but also great problems, if not done well.

That's exactly why we emphasize a partnership-based risk-management. We try to make complexity easier, plannable, foreseeable and thus safe. Because we want our customers to excel – or to "egg-sell" – in their markets and become local leaders.





H&N defines work in "Working Projects". What does this mean?

As every job, ours also falls into the trap of becoming routine. We need to stay alert and help our customers long term too.

This way of working avoids being blindsided by a dangerous feeling of "All right, that's just routine, been there, seen that".

Working projects means to stay alert, agile, take own decisions, act responsibly and be accountable for ones' work.

We do this because we want to strengthen our partnership with our customers by working in projects that will improve their profitability.

These projects could be about how to improve something in their parent stock production or it could be on how to support a customer to use H&N birds in future.

Each project will have a dedicated lead into H&N international and the responsible person will allocate all resources necessary to finish the project in a limited time.

This way I think we can focus the resources of the team and we can give a boost to our customers.

We have started to define work in this kind of projects for different customers. Like in Canada where we are working with the key egg producer who wants to get saleable egg size fast. Or in the Netherlands where we are helping customers to get to the right body weight of layers during the first period of rearing.

I like management by objectives and common goals. And it's certainly one quality to look for when hiring talent and experts, too. H&N seeks to attract and appeal to the best people around the world.

At the same time we try to enable a good work-lifebalance and an innovative way of working and doing business – and that's what we can offer to employees.





66 H&N seeks to have same team spirit with customers as within the H&N team.

> At the same time we try to enable a good work-life-balance and an innovative way of working and doing business - and that's what we can offer to employees.



So... how do you see the support to the customer?

The personal meetings, events and interactions whenever possible will stay most important in the support, however the digital support will keep growing to adapt with new tools the fast changing times.

The analog and digital way to work and both together give us the opportunity to manage our business the best possible way and help our customers to manage their business best possible way as well.

It is important to be, see and smell the farm but it also takes a lot of information and data processing to run a farm well.

Many customers look back on a long and proud heritage of farming and agriculture with lots of experience accumulated over many years.

However, it's not the past that determines data mining and usage in management, it's the future.

The bigger a farm, the more complex the business, the more data and interdependencies between various data will happen.

The deeper you get into a business, the more complex it gets and more data is needed to run it successfully. It means we need to go digital, with data collection and processing, we will make a better and easier evaluation and faster decisions.

This is not only applied to big farms, but also when you're starting a new business you rely heavily on available data. If you run into any problem and ask yourself: "Is that normal or should I panic?" and someone can tell you what to make out of your data right away, it will make your daily routines, management and planning far easier. It's never a black-or-white world, as well as it isn't linear with just one thing to do after the other. Life is larger, it's as simple as that.

The challenge and the chance in this view of modern work and collaboration is to deal with complexity and to be able and do things in parallel in a way best suited to a given situation or a specific customer need.

You don't have to be huge in size, but you should maximize data intelligence, innovative value and the quality of individual interaction

And that's what we can do, because we're good at it, apart from genetic selection and parent stock management and technical knowledge, where we're also good at and have a long tradition with strong proven track record. The combination of both is what sets us apart.

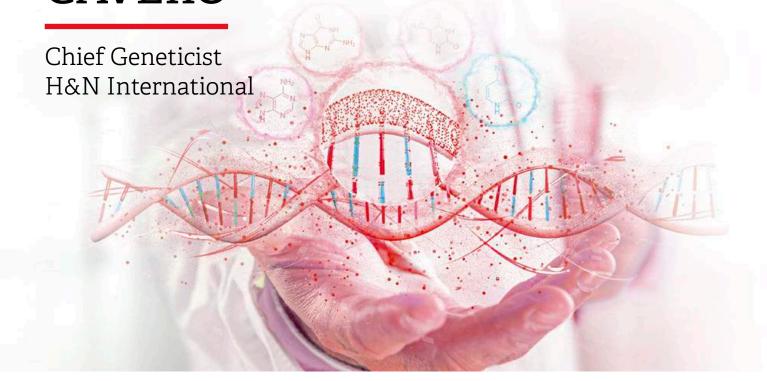
We thank you for the interview.

Xabier ArbeBusiness Unit Manager,
Chief Nutritionist H&N International





DR. DAVID CAVERO

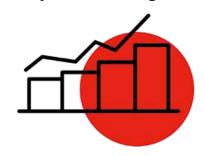


enetics also impact behavior. And that's important to know because, without doubt, traits related to animal welfare have been winning specific weight and momentum in the last decades in animal breeding programs in general.

The layer industry is no exception to this. Management practices like beak treatment or force molt are being criticized and many countries have already stopped to apply such methods or legislation forbids it.

Geneticist can deliver substantial contributions on helping to reduce or eliminating such treatments.

They do so by putting a selection focus on increasing the persistency of the birds, not only in terms of laying rate, but also in terms of good eggshell stability at the end of production to allow the producers to keep the birds longer in production in a single cycle, outdating the practice of molting.



LADIES AND GENTLE HENS

NEW DEVELOPMENTS IN **H&N GENETICS**



Another example is the work done to achieve calmer birds that are less prone to show feather pecking and that can keep a better plumage during the whole production period.

Even when the birds are maintained with an intact beak, in the last years a special selection to reduce the beak length - exactly speaking of the difference between the upper and the lower part of the beak - has led to less sharp beaks and consequently far less damages caused in case feather pecking starts, along with a better feathering in total.

All eggs in one basket

Since more than a decade, a custom designed floor system in conjunction with the use of transponders, has given us the opportunity to select birds that show a better use of the nest. In alternative systems, it's not only important that the hens are producing a high number of eggs, but also that these eggs are neatly laid into the nest and not on the floor.

We have substantially increased our testing capacity of this particular system. Not only producers using alternative systems are greatly benefitting from it, but also H&Ns direct customers, the day old chick producers do, since most of the parent stock flocks are kept on floor systems.

By selecting for better nesting behavior we reduce the number of floor eggs and improve the number and quality of hatching eggs. It's a win-win-win-situation.

Use of molecular information

Advances in molecular biology have contributed decisively in the development of new and powerful techniques for selection. Thanks to the availability of hundreds of thousands of genetic markers such as single nucleotide polymorphisms (SNPs) it is possible to identify the individuals with the highest genetic merit early in life with greater precision and, thus, accelerate the genetic improvements of the birds.

Genomic selection is a recent paradigm shift for animal and plant breeding, a science that has advanced exponentially in recent years





Currently, custom designed medium density SNP-chips are being used to shorten the generation intervals as well as to obtain more accurate breeding values compared to pedigree-based analysis, particularly in traits that are difficult or costly to record.

Additionally, this molecular information allows a better management of the genetic variation within the lines. These new tools complement performance tests and traditional evaluation methods.

Due to sex limited data recording, male selection has been conventionally based mainly on female sibling and ancestry tests. Under this situation full brothers within a family had identical breeding values although their real genetic potentials vary greatly.

implement new technologies in the future, especially for capturing new traits, which would make our selection goal even more comprehensive. Keep in mind that it is not possible to select for one trait that can not be accurately recorded.

Furthermore, we are looking to

I expect to be able to measure new complex traits in the future based on technologies such as sensors, gps devices, transponders, microphones and video cameras and make from this big data useful information using artificial intelligence. This field opens new opportunities to make improvements in traits that are not easy or even impossible to record nowadays.

Molecular information

of the genetic variation

within the lines.

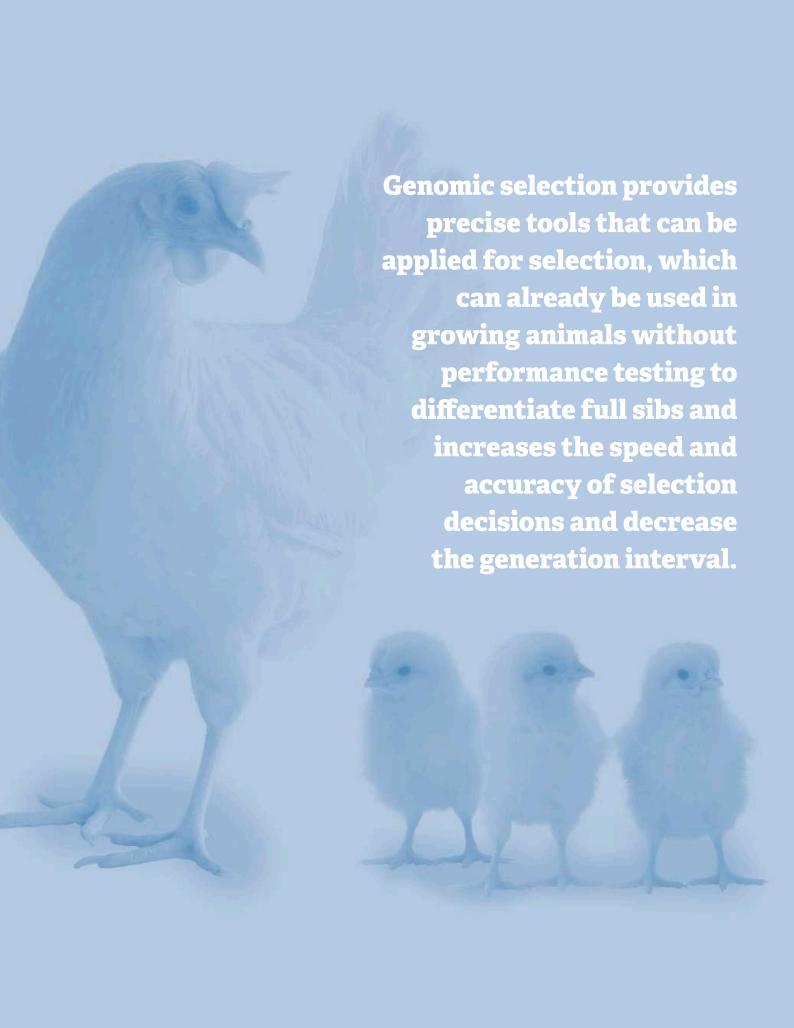
allows a better management

Genomic selection provides precise tools that can be applied for selection, which can already be used in growing animals without performance testing to differentiate full sibs and increases the speed and accuracy of selection decisions and decrease the generation interval.



Dr. David Cavero Chief Geneticist H&N International





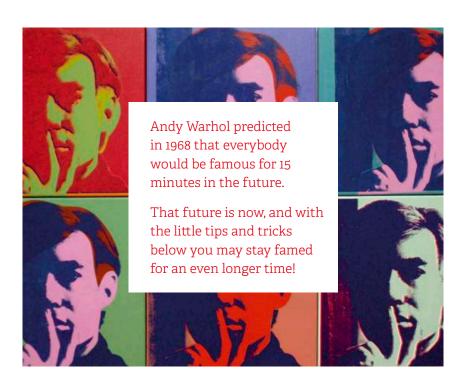


HOW TO



urrently it's
Corona, but in
previous times
travel bans due
to cost-cuttings
or other reasons already
made way for communication
going more digital.

"How can we communicate and stay in touch nowadays?" is again a very frequently asked question. Doing a Webinar, using Skype, Zoom, Teams, Jitsi, Tox, Viber, Facebook or WhatsApp or another service for internet-based chats can never replace any personal encounter, but at least complement it.



Before - Ask yourself

What do I want to achieve by getting in touch? Just a brief "hello, how are you?" or discussing a difficult matter? Doing a training-session of some sort?
What's your agenda?

What do I want to show? Just my face or also documents, slides or anything else?

Does my dialogue partner have internet? A computer or mobile phone with a camera? The video chat service I am intending to use? Is he or she comfortable using it, too?

Would a friendly phone call, combined or followed up by mail, achieve the same goal? Mail and phone shouldn't be abandoned just because there's video chat now. Instead of trying to kill it all with one tool "webinar", choose and mix.

Stage fright sets it right

Professional actors and speakers will reassure you that a little stage fright is perfectly normal. Putting your own stage under scrutiny is a must in order not to have it frighten your audiences. Or into a laughing fit. Or secretly hobby psychoanalyzing you – by the heaps of ironing work, pattern of the wall paper or book shelves in silent suffering far beyond heavyduty in your background.

You yourself will be on camera, all right. But where exactly will you be and what else will be visible with and around you? Test upfront how you come across on camera with a good friend. Or place a mirror at some distance and look at yourself. Stand up and look at your stage without yourself in it.

If you don't like it but don't own a folding screen and if there's also no way to hang up a bed cloth or a cover: Some video chats, like Zoom for example, offer virtual backgrounds, in case you don't want to show your authentic living space to anyone because of mountain massifs of ironing work, debatable interior designs or heavy metal posters covering each black painted wall.



Dress for success

Pick your outfit with care, especially when you're working from home. Because you're attending a business-meeting, only that it takes place online. You want to dress like you're attending a business meeting.

At least the visible upper part of your body wants to. Business casual is probably what you'd also be wearing in the office, and that'll do most of the time. But for more formal meetings: formal attire.

Get the light right

Light alone is an epic topic. Professional actors have light stand-ins, some insist on getting particularly lighted in their movie contracts. Good lighting is as important as make-up, in fact even more.

If you find this hard to believe: Take a flashlight, stand in front of your mirror, switch the room lights out and your flashlight on. Now light yourself from below, slightly under your chin. Probably you are blessed with divine beauty and don't understand this experiment.



However, if your beauty is more of earthly nature: Try lighting yourself from slightly in front and above your forehead.

While on camera you may want to have a reading light nearby. Or you may want to position yourself in a way you have good light onto your face – test it on camera or with the help of a mirror. Avoid any bright light in your back, e.g. from windows, chandeliers or else, because it takes away from your face and reduces you to a shadowy lump in front of the screen.

Immediate lifting without scalpel

If your camera is below your eye-level because you're using a laptop with the screen slightly angled and your double chin, flabby cheeks, lacrimae and vibrissae (lat. for tear sacs and the hairs in the nose) threaten to outact you singlehandedly or as an ensemble: Give your gadget greater height by placing it on a box or some books.

Avoid sprawling yourself into your seat like a cheese painted by Dali. Stay aware of yourself especially when you may not be presenting but only listening.

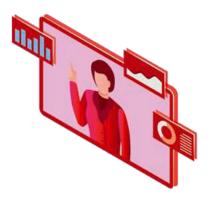


Mind your face: grimacing or sleeping awake is always on air now. You also want to avoid eating, at least heavier meals, not to mention nose or ear picking. Because we can all SEEEEEEE you!

Sounds good?

In a one-on-one setting you probably know your dialogue partner already and speak the same mother tongue. Your conversation will feel and sound familiar.

In a bigger round with more people attending: Try to talk slowly and clearly. Local accents are beautiful but often hard to understand. Pace yourself well, make breaks more frequently, make sure people understood what you said. Give them smaller chunks of information, verbally and on slides, if you show any.



Ask, if there are questions or opinions or prepare people upfront that you are happy to take questions at the end of your presentation.

Especially with more attendees to your webinar or video chat you may want to all mute your microphones when you're not talking. It cuts out noise and helps to stick to one person speaking at a time. Gently mute your mobile phone, pets, family members, if possible, for the duration of the meeting – or prepare attendants upfront that you may get called and ask their understanding.

Also be aware of other tonal expressions your own body may be making: Head scratching, finger tapping, belching, snorting... you get the idea! Remember muting your microphone or closing your doors when taking a bio break or using the espresso machine, and not just because your audience may not be able to tell which is which.

Try to talk slowly and clearly. Local accents are beautiful but often hard to understand

Speaking of which: plan for short breaks in longer webinars

Try to keep meeting time rather shorter than longer and allow for breaks in between if you need longer meetings. Standing up, stretching, using the restroom or fetching a snack can help refresh attention.

Announce breaks upfront and stick to the times.



Dry run

If you plan a bigger project, not just a video chat, and feel doubtful or unexperienced: Practice. With friends or if they are to be your very audience to be surprised, use sofa cushions as a great, forgiving, a very patient audience until you can pull it off well. You can also talk against a wall or memorize your piece on a long walk outside with your dog.

Do whatever helps to internalize what you like to convey. Not necessarily word by word, but in terms of bigger picture. Depending on content, you may also need to truly read things out loud to your audience.

If so, remember to look up every now and then.

Eye contact

When presenting: Try to talk through the screen as if to a real person or a real audience, which in fact, you do because your audience is super real.

Try to maintain eye contact at least every now and then. This is the hard part because you need to look into the faceless "eye" of the camera and the actual eye contact is both illusion (for you) and real (for your counterpart).

Keeping eye contact gets easier when you are away from the camera, for example, sofa2sofa video chats (but no sprawling, remember?).

Keeping eye contact gets easier when you are further away from the camera

Ready to step into the web - Invite and involve

Send a friendly text briefly stating name and purpose of your meeting, link or name to video services used, duration, agenda. If there are more than two or three attendants, also state the other participants – if somebody else than you – is hosting of meeting, dial in details, contact for questions.

Involve your dialogue partners or your audience depending on the size of your round, of course. Ask for feedback, opinions or other contributions. Wrap up and thank everybody.

After the webinar, follow up with some materials, for example the slides you have presented, an opinion poll or a task or homework exercise for the attendees to accomplish.

Maybe assign someone from your audience to set up the next video chat or webinar or with announcing your next being on-air again. In any way, follow up with a little "Thanks for being there" note.









ira came to H&N International via LOHMANN TIERZUCHT.

She started her training there as an industrial clerk in 2016 and completed it successfully in early January 2019. In her training she went through different departments. In the course of this, Kira realized that she liked the Marketing department the most and after her training she was able to continue working in this area.

When it became known in mid/late 2019 that H&N International and LOHMANN TIERZUCHT would diverge, Kira became the "marketing face" of H&N International! "I'm very excited about this new chapter and I'm looking forward to the years to come!"

Her main task in marketing is the organization and implementation of seminars and events by H&N.

AN OLD STAGER TO THE NEW MARKETING TEAM

Digital Native

Kira has a proven track record of intertwining events with digital elements. Because of her young age, she grew up in the digital world and has a lot of experience with the digital technologies. Therefore, the expression "digital native" fits to her very well.

In today's world, mobile phones, the Internet and even the PC are our constant companions. Therefore, I see great opportunities to include this in our work. Particularly when it comes to events.

"Especially in times of crisis, digital events or online meetings are the key to success. As we see now in 2020, it is difficult to have a good contact with customers if we cannot be with them directly on site. So, we have to get in touch in another way and I think the internet is a great element for that!"



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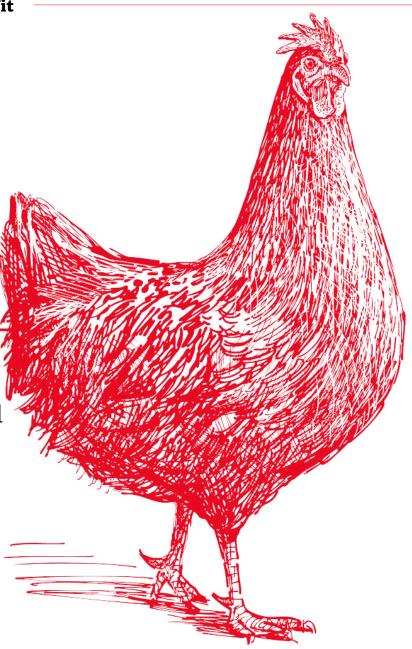






SASKIA RIEDEL

Marketing and Communications H&N International





askia joined H&N
International in
March 2020 as
communication
specialist. Her background
encompasses public relations
and content marketing
mostly for global IT players.

She also gathered experience as copy editor and in talent recruiter for IT and leading communication agencies.

What links her to livestock industry?



I grew up in a small village with a lot of local farmers

around. Later, while working as marketing and communication manager for a medical start up abroad, I lived with my man who ran a small farm for ecologic green feed production and also reared a small number of heifers.

NEW CHICK TO THE FLOCK



Computer and Cow-moo-nication

Online is definitely something to her liking, although she calls herself a digital immigrant.

Already some 20
years ago many of
the big IT-companies
incorporated remote work to cut
down travel costs and optimize
meeting time. It was a natural

way to collaborate and roll out huge campaigns with all colleagues and stakeholders across, for example, the EMEA region.

And a very big advantage of home-office is zero commuting time to work. Whereas in big cities commuting could easily cost you one to two hours of lifetime. Per day! On the small farm digital and analog was intertwined:

I'd start my day early, cleaned the cowshed and helped to feed the animals. Then prepare breakfast for the human part of the farm, log on to my mail account and talk to my manager abroad, then work on the company's web presence and

communication strategy.

And whenever the company needed me to travel to Los
Angeles, Munich or Switzerland, I could still ask my spouse to take me to the stable on his mobile phone when he did the morning feeding routine and hear the cheerful cow-moonication of the animals!





SNEAK PEAK INTO THE FUTURE



UPCOMING WATCH OUT FOR MORE



ear Reader – we hope you have enjoyed this festive anniversary edition of the "Facts that Figure".

There is yet much more to come in the near future:

H&N International Website

A new look and feel for 75 years known and established quality

H&N has always been around and in the world since 1945. Agile as we are, our brand has been more or less visible to the public eye in the past 75 years, as H&N for a long time supported other companies in their business success.

Time for a new website of our own that transports who we are: your dedicated partners for your holistic and sustainable business profit. The new website has all content you are familiar with and many more new things as well – just to name a few: Our Newsroom provides updates on news, new materials and events.

And our new online glossary will put all knowledge into your hands faster than ever before:







The Chickipedia

Find content much faster with the new H&N online Glossary

Whenever you need to check chicken related things fast and by topic, our new online glossary will offer just that: fast access to indexed content with further links.

Inspired by another very well known online encyclopedia we offer you a new way of gathering information fast and targeted to your needs.

At the same time technical material, management guides and leaflets you are used to will still be available as downloads.



Good-to-know-stuff around management, communication, marketing and more

Managing a farm, training staff, changing procedures to optimize them, communicating with customers, employees, business partners and stakeholders – there's a lot more going on around the actual poultry business. And much of it had to relocate to digital channels.

Challenge bears a lot of chance and opportunity, which is why we'll offer "How to ..."-News on things like: How to do your own Meetings via the Web or how to start or refine content marketing. If you are interested in suggesting own topics – you are more then welcome.

Please let us know what "How to ..." you'd like to read about.



Event-Update

We will keep informing you about all upcoming events. As a novelty, we will offer more of our contents online in parallel to the known event formats, so you can decide for the best way to take part and stay informed.

To stay tuned in, please register your mail.





