

## ALL I WANTED WAS TO RAISE CHICKENS

ART HEISDORF – IN HIS OWN WORDS





**H&N INTERNATIONAL**GENETICS AND MORE SINCE 1945







Yours.

# Editorial WELCOME TO THE FIFTH EDITION OF OUR COMPANY MAGAZINE "FACTS THAT FIGURE"! XABIER ARBE

### Managing Director H&N International

Dear reader – you are about to read the 5th edition of H&Ns yearly company magazine produced for the H&N International's independent team and a very special edition.

80 years since H&N was founded by Arthur J. Heisdorf and his wife Mary. 80 years of ongoing innovation. 80 years of genetics - and more! H&N has always been about more: More ideas, more profit, more service, more to be achieved and further to go beyond.

In 2020 we started a new era in the history of the company, moving away from the shadows and emerging with a vision to make a difference in the market. We updated what our founders started – supporting our distributors, and egg producers in getting the best results. In any climate, with any housing, any local feed and for any egg target. We move forward and keep adapting to the changing market requirements – no more and no less.

When H&N re-emerged, it wasn't easy, we all suffered the challenges of a global pandemic and together we overcame the obstacles of logistics and support. At the same time, we started modeling our ideas and services to show the market the value proposition of our birds and the new set up of the company.

Faced with many challenges, would we be able to make a difference? Would we make it at all? After what felt like a generation-long absence, the H&N brand was unheard of in many markets. Would we, with a lean team and the original five proprietary H&N breeds, be able to change that?

Well, we did – not only did we rebrand ourselves very successfully; we started by offering a scalable business model where it is clear to our distributors what they can expect from our support, and they can choose what suits them best. In addition, the Feed-R&D layer farm has become a game-changing source of information for the industry. We have embraced new technology developing KAI; it has become a unique software with unparallel features in the market.

We have developed many technical and marketing materials adapted to your market needs. "Wow, H&N really is different!" This is what we hear increasingly often! And we like to hear that. Because the "more" we offer beyond genetics is what makes that difference.

More is coming in the next 5 years, achieving far beyond 500 eggs in prolonged production keeping them until 120 weeks of age. Birds capable of a shorter oviposition, which means an egg a day, 24/7, literally! The future is bright, and we will work together to achieve the goals of a leading company.

H&N International is your supplier and partner of choice! Because your success is the center of our universe! In all the inventions, optimization, achievements and advancements we make, this is what remains stable: Your success is the center of our universe!

Xabier Arbe Ugalde, Managing Director H&N International

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## PS: Starting into new markets

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H&N International proudly welcomes Ishmu Poultry Farms Ltd in Lusaka, Zambia, among the global network of Distributors.



#### **Big Business**

H&N International welcomes new Brown Nick Distributor in Vietnam

H&N International proudly welcomes the Ngoc Mung Giong Gia Cam Joint Stock Company, Vietnam, among the global network of Distributors.



#### Dr. Mikhail Malyshev

#### Veterinarian for Russia and CIS

Born in 1971 in Yenakiyevo, former Soviet Union, he grew up in a rural part of town where his family kept some chicken in their backyard. Almost every free minute was spent with the animals, studying their behaviour in earnest fascination.

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## **Ana Caselles**H&N Key Account Manager

Brazil & Central America

I was born in Brazil, in Rio de Janeiro City on June 17th of 1980. Those people born in Rio City are known as "carioca da gema" it means "yolk carioca".





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### **ART HEISDORF - IN HIS OWN WORDS**

1981 our founder Arthur J.
Heisdorf sat down to write
his memoirs, he was just a few
days short of his 69<sup>th</sup> birthday
then. The historical society
of Redmond in Washington
Seattle, USA, kept a precious
typed document of two pages
that Heisdorf wrote himself
in his own words and style.

We can feel some of his personality shining through as he recalls his life and his lifelong dedication to chicken breeding and inventing. We reproduce an abridged version here – the unabridged memoirs are available as audio-podcast narrated by a voice artist.

Art Heisdorf's personal memoirs start like this:

The main thing to remember in writing history is to tell the truth and not let any damned modesty creep in and spoil the story. And so, I will tell this story the way I remember it."

Born December 30<sup>th</sup>, 1912, in Milwaukee, Wisconsin, USA, with German ancestry Arthur Joseph Heisdorf started into his unique career at the University of Wisconsin at Madison where he majored in Poultry Husbandry and Genetics, receiving a B.S. degree in 1936. During the summer of 1937 he enrolled in the Graduate School at Iowa State College.

Here, he studied under Dr.
Jay L. Lush, Professor of
Animal Breeding, whom
he called "a genius". It is
unclear how Art feels about
him, since he ends the
sentence by mentioning
that he received no degree.

Only much later, in 1977, and largely through the efforts of many long-time influential friends, Art would receive an honorary Doctor of Science degree from the University of Wisconsin.

He recalls how amazed he felt by the large number of young people in universities those days who did not know what they would want to do with their lives. Because he himself had known from very early on, already "by the time I was a freshman in high school" that all he wanted to do was to "raise chickens".

He writes that this determination was quite strange because Art grew up as a city-boy close to downtown Milwaukee. Already as a boy he "devoured" magazines like "Poultry Tribune" and "American Poultry Journal" and financed these as delivery boy for newspapers.

It seems I was driven to raise chickens because I certainly received no encouragement from my parents or relatives",

he recalls.

His first earnings soon also went into a kerosene incubator and 25 white Wyandotte chicks which he "brooded with light globes in a corner of my bedroom." His mother was not amused to find out, but "she didn't go so far as to forbid my doing so." Mrs. Heisdorf must have felt her sons calling for chickens as well!

After graduating he got himself a job at the Concordia Creamery Company of Concordia, Kansas which among other activities hatched and then sold chicks to farmers and bought back the mature chickens for marketing as dressed meat birds.



In October 1936, after just a few months, Art received an offer from John Kimber of the Kimber Poultry Breeding Farm in Niles, California to work for him as geneticist. It came as a surprise because Art had not applied for any position. He had, in fact, only contacted Kimber once before as a student, and had asked permission to use some records for an undergraduate thesis. Arts request was refused, and "in no uncertain terms." Yet, Art jumped at the opportunity to work for John Kimber, and moved to Niles, California.

He stayed nine years, until August 1945.

Those years were very important and inspirational to me. I do not think John Kimber gets nearly the appreciation he deserves",

Art writes.

He also got to know Dr. Jay L.
Lush of Iowa State very well,
because Lush frequently visited
Kimber Farms as consultant.
The two became lifelong friends.
And someone else entered Arts
life, he proudly writes how he
left Kimber Farms in August
1945 "with my wife, Mary". The
newly wed Heisdorfs started
their own business on an old
empty 13-acre poultry farm
near Kirkland, Washington with
12,000 layers, a brooder house
and an old 15.000 egg incubator.



The Heisdorfs started selling Kimber Strain Leghorns. John Kimber had made an exception to his rule of never selling out of the state of California and sold his former employee baby chicks. Art and Mary trap nested and selected them and started importing samples from other leading breeders in the USA, Europe and Japan to cross with their Kimber stock. One "nicked with the Kimber blood. That was the foundation of the H&N Nick Chick Leghorn", Art writes. And the rest is history!

H&N Nick Chick did very well. The Heisdorf's breeding program had changed from pure linebreeding to Reciprocal Recurrent Selection (RRS) basing on information Art had gathered at the Heterosis Conference at Iowa State College in 1950. The new approach was so successful that "hatcheries from across the country began to clamour for our stock!".

This was the start of a franchised hatchery program whereby the Heisdorfs would sell males of one line and female chicks of another line to allow distributors produce H&N Nick Chicks as well. By 1954 there were already 15 franchised hatcheries.

Everything based on solid research and analysis: Already 1952 Art and Mary further broadened their genetic department hiring more scientists. Eventually in 1958 they had a staff of four Ph.D. geneticists, two consulting geneticists, four veterinarians and a Ph.D. physiologist, and a couple of supporting scientists each with M.S. degrees.

1958 German Lohman & Co.

became the exclusive sales distributor for Continental Europe and Africa, a breeding farm was established near Cuxhaven. Germany and Austrian geneticist Franz Pirchner employed to oversee genetics complied with the Heisdorf process. Further farms followed, 1962 in Japan. Ireland, 1963 in Brazil and 1966 in Scotland. 1971, Art is almost 60 years old and looks back on a global success story, ready to retire and let others take over. H&N International

This is where Arts typed memoirs end. But the story continues:

Former general manager of H&N Alan Bargmeyer recalls that as huge mistake, because Pfizer decided to discontinue the successful agreement with Lohmann and have their own sales staff take over – but selling life stock is different from selling vaccines. So. when in 1987, the occasion to get H&N back presents itself Lohmann does not hesitate.

For the next decades H&N becomes a part of their former distributor, with the H&N original breeds being continued – often referred to as a "Plan B" of more robust birds with longer pedigree when "Plan A" would not suffice for a certain tough challenger of climate, housing, feeding or egg target. 1988 Mary Heisdorf passes away, Art follows his wife in 1992, 2020 H&N International officially starts a new era as independent company of "genetics and more" and considering the customer's success the center of everything we do. Art and Mary would surely be happy to see it!



The Heisdorfs' goal was simple: Always just the best! And with a proven track record.

In proud memory of our founder Arthur Heisdorf, known by his nickname "Art". our award for the best H&N flock is named "Arty". Unlike an Oscar® statue, which is in essence just gold-coated cheaper metal, the H&N "Arty" is solid laser-engraved glass, transparent all the way through—like the Heisdorf's breeding procedure.



is sold to Pfizer.

## THE MARY C. HEISDORF SCHOLARSHIP



## FOR "THE INNER CIRCLE OF PEOPLE REALLY INTERESTED IN POULTRY"

ary Heisdorf
plaid an equally
important role
in the HeisdorfHistory as Art himself. After
Mary passed away in 1988 Art
founded "The Mary C. Heisdorf
scholarship" 1st June 1989 to
commemorate her heritage.

As the newlywed Heisdorfs had started their own poultry business in Kirkland, Washington, USA, they were just the two of them, working side by side 16, 17, 18 hours a day. And at night, Mary would do the office work" wrote award-winning staff editor Eric Lacitis in his article THE HATCHING OF HIS LABORS HAS BEEN NO PALTRY ACHIEVEMENT, published June 3, 1986, in The Seattle Times (WA).

In the beginning the couple could not even afford a truck, so they first transported crates with chickens on a wagon they would pull. Just five years later the company employed almost 200 workers. Of course, Mary was on the board of directors. as she had been a partner in every way to Arthur since the day of founding. She had always been an integral part of the business, helping first on the farm and in the hatchery, then with the financial end of the business, and finally graciously receiving visitors from around the world who became distributors of their products. With the scholarship Heisdorf honored the work of his late wife and business partner. And he found a way to keep the innovative, researching Heisdorf spirit alive – and pass it on to future generations.

University records of recipients date back to 2003. Between then and now 36 awards were given in the amount of US \$41,780. Not every year saw awardees, since the University of Wisconsin looks for the best and most promising students. On the other hand, a couple of exceptional awardees have received the scholarship more than once for their outstanding contributions to poultry science, proving to move poultry science forward to new horizons – like Art and Mary Heisdorf intended.







The Mary Heisdorf Scholarship is available to undergraduate and graduate students with an interest in poultry science or poultry research in the College of Agricultural and Life Sciences at the University of Wisconsin - Madison. Students must not be majoring in poultry science to be eligible for this award, however most of the students are in the Animal & Dairy Science department.

The application process for this scholarship differs from those offers students apply for directly: The Mary C. Heisdorf scholarship is initiated from the University of Wisconsin, where a board of professors selects the prospects. The students use a general application for scholarships within the college, and then the board of faculty members matches students to the scholarship that fits their interests, strengths and their intrinsic motivation to start a career in poultry.

The original intention of the Mary C. Heisdorf scholarship is "to bring the right people together" as **Prof. Ron Kean**, faculty associate and extension specialist in the Department of Animal & Dairy Sciences described.

What makes the scholarship stand out amongst other scholarships is not the fact that it funds students, but that it welcomes them to the inner circle of people really interested in poultry. Like Art and Mary Heisdorf had been really 'into' poultry!" The scholarship does not limit students in any way in their choice of interest, if it involves poultry science.



## Genetics and more



We commemorate 80 years of excellence in poultry genetics, driving productivity and quality in egg production.

We thank our customers and partners for their trust along this journey.

Sincerely.
The H&N International Team



www.hn-int.com





ur global team
of experts of
various kinds
welcomes a new
member: Kelly Brannan
joined H&N International in
July 2024 as the new Global
Hatchery Specialist.

I was excited when I learned about H&N, one of the oldest genetic companies in the world with this dynamic and diverse team! The brand turns 80 next year, and there's such a rich history in the company that's still growing strong-I'm excited to be a part of it!"



#### **Animals everywhere**

US-born in 1981, Kelly spent her early years in the Sandhills region of North Carolina. Her introduction to agriculture begins early as her family ran a small farm with goats, chickens, and various other animals as well.

I wanted to be a veterinarian, so I was always looking for opportunities to work with animals."

She recalls

The fascination with chicken struck during her undergraduate studies at North Carolina State
University, when she took a Poultry Science class as an elective. The class was taught by Dr. Carmen R. "Carm" Parkhurst, Department Head of Department of Poultry Science and author (with co-author George J. Mountney, 1988) of "Poultry Meat and Egg Production".

#### A global career spawns

Meeting Carm was kind of karmic to her career:

He was such a fantastic teacher! He was also the head of the poultry judging team, which I joined and ended up qualifying for nationals! The competition was my first time travelling out of the state and the experience really opened my eyes to the opportunities available working with poultry!"

Brannan says.

She was amazed about the many aspects and opportunities available within the poultry industry:

The career options are so diverse! You can specialize in nutrition, food safety, health and welfare and many more. And even within a specific area, like the hatchery, you still have multiple disciplines: developmental physiology of the embryo, physics of heat transfer and ventilation in incubation, hen nutrition in relation to yolk content, and so much more! There are always new elements to consider that continue to broaden your knowledge!"





#### Being where everything starts

Already during her studies, she started working part-time with vaccination company Embrex in the early 2000's. A lot of their research was focused on their trademarked Inovoject machines, which involved incubation as the machines allow hatcheries to vaccinate during the transfer from the setters to the hatchers.

The idea that this was where it all started, that the first step to successful poultry rearing was the hatchery, was so intriguing for me".

Brannan says.

Then - and now - we're seeing rapid genetic change that pushes bird performance to its limit, yet incubation time remained set at 21 days. That's why both my Master's and PhD research focused on how we optimize embryo development during incubation so that the chick is prepared for post-hatch performance."

"Genetic selection has made remarkable progress in the past ten years, with decreased time to market weight for broilers and increased layer production cycles. But incubation still takes 21 days-there's no room for error in the setter".

says Brannan.

Poultry had an even greater influence on her life when Brannan moved to South Africa to live with her husband. The two met in a chicken house when he was visiting a friend in the US, in the same laboratory where she was doing her studies.

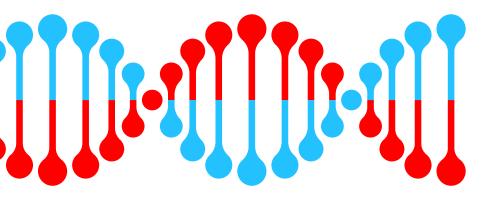
We were weighing birds, and he thought I looked nice wearing a hair net, coveralls, and farm boots",

she laughs.

We were both surrounded by the ubiquitous smell of chicken poo in the air, which in hindsight probably doesn't sound romantic!"

The couple, like H&Ns founders Art and Mary Heisdorf, share the fascination of chicken.

"My husband works in poultry nutrition, and we joke about whether the feed or the hatchery has the greatest influence on hen performance. Between you and me: It's the hatchery, obviously!"





#### What's next?

Brannan says it's hard to predict the global future of hatchery, as each region has its own challenges.

I think we will see a lot more automation in the hatchery, more implementation of inovo sexing technology, improvements in monitoring incubation conditions to better match embryo requirements, as well as the incorporation of artificial intelligence and the Internet of Things (IoT) to more objectively evaluate chick quality or to handle vent sexing",

she explains.

Brannan believes that there are major opportunities in combining production and quality data to optimize operation performance. Particularly in the hatchery, where a large amount of data is routinely collected

There is often a delay between when data is collected and when it is interpreted. Here is where I see major opportunities in improving operational performance, especially with the potential for technology to improve the process of data collection and analysis",

she concludes.

#### **Hatchery-Know How systemized**

The requirements of the embryo remain roughly the same in terms of temperature, turning, gas exchange, and ventilation as when the first hen sat on her nest.

But how we achieve the correct conditions will vary widely with machine type, breed, storage conditions, and hatchery facilities, just to name a few factors",

explains Brannan.

With H&N, I want to work closely with hatcheries to build a knowledge base of what the embryo needs in certain conditions and how we can achieve it at your specific operation".

It's critical to start with the "why": Why temperature is important, why turning is critical, and so on.

Once that is understood we can adapt the 'how' to fit the operation and continue adapting as the hatchery grows and expands",

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outlines Brannan.

The hatchery is the foundation of long-term bird performance so it's critical to get the basics right".

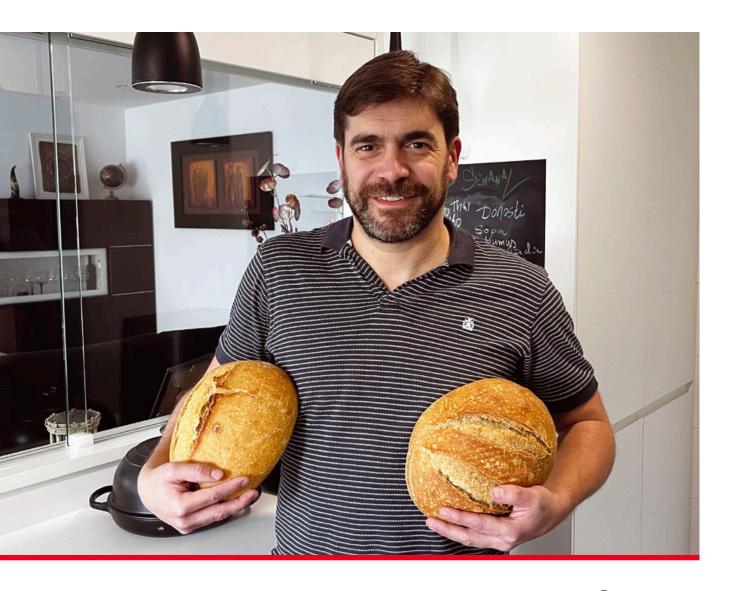
In her new role she is looking forward to working with all the different hatcheries, learning about their specific challenges, and working with them to hatch the best H&N chick possible!

With her entire professional and private life so saturated with chicken, what does a hatchery specialist do in her spare time?

I like to be outdoors. We have a lot of beautiful natural parks here in South Africa. I also enjoy lifting weights and listening to music to relax at home!".

We warmly welcome Kelly Brannan and wish her all the best in her new role!





## Bench-pressing Benchmarks

Jon Urkiola Becerril, H&N International Projects Manager



## Yes, H&N International is a genetic company – and much more!

We keep diversifying our portfolio with new formats of services, trainings and support for our distributors and their customers. To maintain highest quality and drive ahead industry leading cutting-edge solutions we broadened our team of international experts and specialists further enriching it with a new role: Jon **Urkiola Becerril** joined our team in 1st of June of 2024 as **Project Development** and Application Manager. A good reason and opportunity to quiz him profoundly:

## Please tell us about yourself and your origins!.

I was born 1978 in San Sebastián, Spain. If you have the chance, visit it! You will understand why it's so famous: the beauty of its beaches, the elegance of the city, the excellence of its cuisine, and the joy and friendliness of its inhabitants."



## It sounds like a great place! Then, how and where did your professional career begin?

My professional life began in Pamplona. As soon as I finished my degree, I started my internship at the Clínica Universidad de Navarra, one of the leading clinics in Spain. After completing my internship period, I continued and have since been working as a quality engineer for the past 22 years. The clinic is a benchmark in healthcare, as evidenced by the fact that it has topped the ranking of healthcare companies with the best reputation in Spain for the last ten consecutive years."

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For me, working with them and contributing to the improvement of their performance has been very rewarding, as I joined for the first implementation of the Joint Commission International, a very demanding hospital quality system (with more than 1000 requirements) in which the Clinic was certified for the first time in 2004, and has done so continuously since then, including in 2023 the accreditation of its new building in Madrid."

66 contributing to the improvement of their performance has been very rewarding



## What has been your experience working with H&N?

I have had the opportunity to collaborate with a team of excellent technicians and professionals who know the sector very well and do an excellent job. On my part, I hope to work with them and help develop proven effective tools such as incident management, risk assessment, effective communication systematization, setting joint goals with our clients, concrete process definition, and establishing consensus requirements with all stakeholders, and developing measures to achieve the objectives. I also hope to implement incident management tools for day-today incidents, such as the afore mentioned risk assessment, identification of critical points, and accident management. This will allow us to have preventive measures in place to minimize the occurrence of these incidents and reduce their impact on our chicks."

## What is your area of responsibility at H&N?

I oversee implementing all new technologies in our processes, which is a great challenge as there are more and more powerful technologies, but at the same time, it is a very interesting job. On the other hand, I have the help of my entire team and, of course, our distributors. Currently, I am responsible for supporting the implementation of our KAI farming assistance software. This helps to monitor all the work done on a farm and, will allow us to establish direct measures for improvement, as well as implementation of tools for analysis through graphs allowing systematic comparison between current flocks, standards, and previous flocks."

## What impact do you expect these new tools to have on the poultry sector?

I am confident that KAI is the way to achieve these goals.

I am sure of its effectiveness, and the tremendous help and impact this will have on farmers. In addition, I want to ensure that our farms move towards a more sustainable culture, as technological opportunities available in the market increase."

I want to ensure that our farms move towards a more sustainable culture, as technological opportunities available in the market increase"



## How was your start with us?

I am enormously grateful for the great acceptance I experienced since my arrival, both from the H&N team itself, which has considered me part of the team from the first minute. As well as from all the people I have had the opportunity to work with, especially the farmers who have opened their doors to me around the world. This has allowed me to work with greater confidence and advance faster and further than I imagined at the beginning, reaching levels that make me feel quite accomplished in my work and motivate me to improve further.

## What does working globally mean to you?

For me, every learning is a source of motivation and progress towards personal fulfilment. Working globally attracted me a lot; and I think I am a very fortunate person to work in a single day with people from Asia, Africa, Europe, and Latin America, and to be able to share with all of them knowledge, effort, and a desire to improve. Right now, I am eager to visit the farms I am collaborating with out of Spain.

## What do you do when you are not working?

I try to and focus on an activity of the moment, the now. A few years ago, I took my hobby of cooking seriously, to be able to have a healthy Mediterranean diet. I wanted to be able to prepare dishes that I liked, but that included more fruits, vegetables, and legumes, and had less fat content. I enjoy cooking a lot, and it helps me disconnect and focus on creating exquisite and healthy dishes.

I also practice CrossFit. CrossFit has shown me that I have more muscles than I was aware of (thanks to the soreness you suffer when you exercise them). Once you get over the soreness, I have noticed clear improvements in vitality and strength, as well as allowing me to share sessions with great people I see at least twice a week.

On weekends I try to walk in the mountains. I have always had the hobby of climbing any mountain around me, from all the peaks of my native Gipuzkoa to the most significant peaks of the Pyrenees. Although I always accompany myself with my watch and technological advances, I try to turn off its functions and only leave the GPS running.

Perhaps my greatest hobby is still sharing moments with my loved ones. I have a wonderful family and friends of whom I am proud, as they share my joys, and make me laugh and enjoy their happy moments.

## And your favourite way to cook eggs?

As one of my basic products I cook it in hundreds of ways: boiled in salads, in carbonara pasta, in cheesecakes, crepes, shakshuka...But, in my country, the answer is mandatory: frying eggs and omelette of potato, codfish or wild mushrooms.

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## UPSET? GET SET UP!



Set-up-Service means we migrate all your existing data into KAI and set the software up for you so you can start using it right away with all your parameters already set.

Get your turnkey solution ready within 24 hours of data synchronization! Distributors and egg producers are eligible for free KAI Set-Up Service.





Producing eggs, salable quality day-by-day and under any sort of condition can be a very responsible job, tough at times, most of the time really – and you are the one to know that best! And sometimes, rather often, you surely wish that doing business could be just a little easier, more profitable, easier to plan,

easier to go for waste free, error-free and just get faster to the point altogether? That's right!

The farm is a complex system based on people, facilities and of course, hens.

There are hundreds of tasks to do, daily broken equipment, quality control systems to comply with... and on top of that follow up the productivity of the farm.

Would it be bad to ask for help? What would you do if you could get help to manage the farm system?

Are you really getting everything possible out of your breeds?

What if switching gears to your new way of farming was easier than you think? You could switch gears – and you really should! You, your team and your birds will appreciate more safety, clarity and plannability, more knowing-exactly-what-to-do without even needing to leaf through any documentation, because you hold the solution already in your own hand – literally!

Book your Set-UpService with our
Engineer Jon Urkiola,
he will implement
KAI in your farm,
train your team
and integrate your
processes into KAI.
Once your team is
ready, within 24hours
he will migrate your
existing flocks into
KAI, and you will have
your farm completely
digitalized.



### What keeps you from it?

Inertia? Is making changes on your farm difficult? Farmers might not like the new tool.

Aren't you tired?

Don't let others take over when the solution is so simple as to upload KAI and get it set up ready to use by H&N! We want you to lead the race because we know you can!

Fear? A better solution sounds like a new problem, because you and your team will have to learn to operate it? It may be complex?

If you and your team can use a mobile phone, you can use KAI. It is as simple as that! KAI has been specially developed for mobile devices and with utmost intuitive user friendliness. You will be amazed how simple it is – and how KAI ties in with your very own processes at your farm. KAI has the potential to become your best friend! No kidding!

Applying KAI seems complex? No problem at all – training is included, and our Engineer will be there at each step of the process. He will be at the farm the day before and the day after KAI goes live. You will be able to report any problem directly to him through KAI too.

You deserve to enjoy more – more money, more time to think about improvements, more power! More sellable eggs, and better results throughout!

## What are you waiting for? **Switch to success now!**





## **EGGspectations**

## H&N SUPPORTS LOCAL PRODUCTION AND BROAD AVAILABILITY OF EGGS AS SUPER-FOOD

Photo caption: Bruce Dooyema and his Versova team, along with José Crozier (HOI's Chief Operating Officer) and Claudio Aguirre (HOI's egg farmer for the 1000 Days of Life Programme), worked together to assemble the layer barn equipment with support and guidance from Paul Pressley and the wider HOI team (not pictured here).

ggs have been part of human history since the earliest beginnings. A given natural source of nutrients for some – an unattainable luxury to too many others! H&N International supports the International Egg Foundation (IEF) in their collaboration with One Egg.org and Honduras Outreach Inc. (HOI), who pioneered an initiative in 2017 to bring eggs to more people and much earlier in their lives too!





Combined with production support and technical services, a flock of 1,500 H&N Super Nick pullets produced by H&N Distributor INHASA and donated by H&N International arrived at HOI's "Huevos el Rey" farm in February 2025. The farm is operated by Claudio and Blanca Aguirre. The support of all partners and the H&N pullets supports the Aguirres in greatly increasing the quantity of eggs that they produce for HOI's "First 1000 Days of Life" nutrition program.

Few natural products can compare in terms of nutritional value, not to mention the ingenious product packaging worthy of any design award! H&N birds' proven track record of world-leading eggshell strength helps in transporting the eggs to families that often live very remotely.

### The "First 1000 Days of Life" program of HOI, One Egg.org and IEF

The programs' goal is to supply a minimum of 100 families with daily eggs over 1000 days. This period starts with expecting mothers and continues over the birth of their babies for at least two additional years, demonstrating how the power of eggs can support the critical early developmental stages.

By providing an essential source of high-quality protein, vitamins, trace minerals, and nutrients to the mother and child during pregnancy, breastfeeding, and infancy stages, the program addresses the nutritional needs crucial for optimal growth and development. This is particularly vital in communities around the world that still suffer from nutritional poverty.

OneEgg.org likewise dedicates itself to counter the effects of protein deficiency in children like immunity problems, poor concentration capabilities, and delayed growth. The organisation partners with local leaders to provide protein for thousands of children across the globe during the most crucial stages of development.







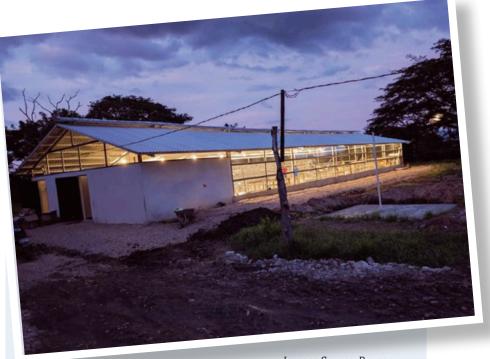
## ... 1000 days and far beyond ...

With the program also the local egg production develops into a modern agricultural profession of creating regional high-quality protein.

Camila Reina, CEO of Honduras Outreach Inc. (HOI), as IEFs partnering Non-Governmental Organisation (NGO) comments:

The 'First 1000
Days of Life'
nutrition program

is a game changer. Not only is this directly impacting an expectant mother's health and that of her baby for over 1000 days of life, but it is also creating healthier eating habits and educating the population about the benefits and wonders of the egg. Our aim is to address physical and cognitive stunting as well as maternal nutrition and wellbeing in remote areas in rural Honduras with potential global replication. With the expansion the IEF and its partners are supporting, HOI will now be able to double its population reach and facilitate our entrepreneur's market expansion."



Images Source: Bruce Dooyema, Versova

#### **Facilitating market expansion**

To sustain the availability of local high-quality egg-protein, modern production also needs support. Present-day layer breeding and egg production evolved from a niche industry or the regard as supplementary food into a mainstream future business of modern healthy eating. Modern production also means modern management with the support of artificial intelligence to plan tasks, prevent risks, reduce waste, educate staff, and make farming more efficient and profitable.

#### Scale without fail

So, as egg producers Claudio and Blanca Aguirre of HOIs "Huevos el Rey" will be supplying the eggs for the "First 1000 Days of Life" program they also play a key role in upscaling production numbers. Claudio holds over ten years' experience in egg production. Supported by HOI, Claudio began raising a small backyard flock a decade ago. And as a result, he and his wife Blanca were chosen to be the producers when the "First 1000 Days of Life" program started in 2017.



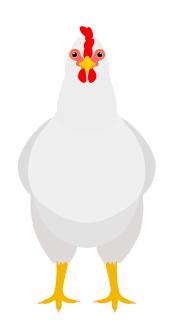


Growth is a great thing, however Claudio also knows that bigger flocks mean bigger responsibilities. Ready to take the quantum leap, support for his endeavour comes from more than one side:

Consultant **Paul Pressley**, retired from the U.S. Poultry and Egg Association, met many poultry producers during his career. He understands the concerns of handling flocks multi times in size. Paul also remembers the early days of the program, when in 2018 HOI and One Egg. org began their collaboration to supply one egg a day to families in the Agalta Valley.

OneEgg.org played a key role in initiating things and has been a major supporter ever since!"

Back then, the eggs were produced in a small layer house with 400 floor raised hens. The program expanded into a new 3000 square foot hen house with caged systems. Now the next plan is to increase from 400 to 1500 birds and ultimately to full capacity of about 3000 hens, which will allow the "First 1000 Days of Life" program to expand and also provide eggs to the local school.



#### Quick to big and strong – H&N Super Nick

We are very honoured to support this project with H&N
Super Nick pullets that will be producing the actual key elements of the 'First 1000 Days of Life' programme!",

says Dr. Ronald Trenchi, Key Account Manager for Latin America and one of the most experienced veterinaries of H&N International, as he represents H&N International onsite.

We will also do our best to transport modern egg production methods and help establish a firm base for future developments",

## says **Xabier Arbe, Managing Director of H&N International**

and Chief Nutritionist. H&N Super Nick layers produce large eggs already very early, so the 'First 1000 Days of Life' benefit from as much egg mass as possible right from the start.

H&N Super Nick is giving farmers flexibility in producing with what they have available locally. Being able to produce competitively and to thus sustain oneself in the local market is a key fact for solid future egg supply as well.

Given the remoteness of the Agalta Valley, H&Ns world leading shell strength also plays a key role in making the donation really take positive effect and work out practically.

Delivering such big eggs intact to the consumers is a decisive factor that sets H&N International apart.



## COLLABORATORS INVOLVED IN THE

## "FIRST 1000 DAYS OF LIFE"

### **PROGRAM**

**CLAUDIO AGUIRRE**, Head farmer of "**Huevos el Rey**" egg producing farm and his wife Blanca within HOI at Agalta Valley, Honduras will produce for the "First 1000 Days of Life" program.

#### HONDURAS OUTREACH INC.

**(HOI)** pioneered the "First 1000 Days of Life" initiative, starting in 2017. HOI is a development nongovernmental organization (NGO) working in rural Honduras since 1989 with outreach initiatives in education, healthcare, clean water, community development, spiritual life, and agricultural economic development. The operation is run by a multinational team led by CEO Camila Reina and managed onsite by José Crozier, Director **of Operations.** At present HOI operates a school and four health clinics providing medical assistance and care to the expectant mothers, as well as a

population of 16000 Hondurans in rural areas since 1989. Part of HOI is also a farm with cattle, crops and, of course, "Huevos el Rey" for egg production. HOI is committed to improving health, education, and agricultural development, providing training for setting up small, agricultural businesses.

## INTERNATIONAL EGG FOUNDATION (IEF),

represented by the NGOs **CEO Cassy Price**, initiated and coordinated this donation and all necessary processes between donors and collaborators.

## BRUCE DOOYEMA OF VERSOVA COMMUNITY

**FOUNDATION,** Iowa (USA), coordinates all donors' donations onsite in terms of time planning, supervision, and interface management between parties and people. Bruce and Versova were also in charge of installing the lighting and cage system in the hen house.

from the **U.S. Poultry and Egg Association**, helps as another consultant to HOI as well as an early adopter and evangelist for digital farming assistance in modern farming and subsequent training and

education for safe and stable

results.

PAUL PRESSLEY, retired

H&N Distributor **INHASA**, **HONDURAS**, under **CEO Dr**.

Cristina Samara supplies H&N Super Nick pullets and support. INHASA, short for Industria Avicola Hondurena SA, was acquired by the Samara Family in 2010. The company is very well known in Honduras and beyond the country's borders. Under CEO Dr. Maria Cristina Samara, INHASA moved into a new and very modern direction with a sole focus on parent stock, services, and support.







**HATO AGRICULTURAL LIGHTING,** Sittard
(Netherlands), provided the lighting equipment.

The **OneEgg.org** organisation is represented by **Dave Juenger, Executive Director.** 

The organisation exists to put protein in the hands of the next generation. To do so, OneEgg.org and partners work to create sustainable agribusiness operations, ensuring a steady egg supply, supportive communities, and a generational change.

**BIG DUTCHMAN**, Vechta (Germany) supplied cages, drinkers, and further equipment.



## WORLD POULTRY FOUNDATION, Tucker

(USA), acting as a catalyst for improving lives globally through the sustainable production of poultry by empowering farmers in developing regions.

The **AMERICAN EGG BOARD**, based in Chicago, IL (USA), supports America's egg farmers to increase demand for eggs and egg products both in America and abroad. The American Egg Board also funds egg research projects like the "First 1000 Days"

of Life" initiative, examining what difference the egg makes in early childhood development, beginning with the mother during pregnancy to the first three years of the child's life.

KEITH HEERINGA,
PRESIDENT OF HEERINGA
CONSTRUCTION LLC, IOWA
(USA), was in charge of the

**(USA),** was in charge of the design and construction of the hen house building on the premises of HOI farm.



The key to your profit

## EVOCE BESPOLE

&N International leader in genetic improvement goes one step beyond in the research on how to maximize egg production and longevity of its birds. What if you knew precisely what to feed your layers to reach the exact egg sizes that markets demand and keep them longer in production?

H&N International is the only genetic company testing its birds for feed requirement in a dedicated facility controlled by H&N international. Results prove how to produce various egg sizes, with the same breed, same lighting program and at very cost effectively!

H&N International founded in 1945, its focus stayed on layers egg production: Achieving best results continuously in all markets, all climates, any housing and with any kind of feed.

Founders Arthur and Mary Heisdorf made scientific research core from the very start they worked with IBM computers already as natural part of breeding and result analytics before their computing power realized NASA's moon mission!

Precision in production is precision in profit generation: H&N breeds are selected with the latest technology so the egg producers receive hens that can lay saleable eggs every 24 hours and keep the flocks up to 100 weeks and beyond. The future is getting closer and sooner than later H&N will release hens that could remain on a stable high production until 120 weeks of age in a single cycle.





It isn't a secret that feed is key to achieve new goals in egg production. In addition, not all the markets have the same egg size requirements, and they might change through the life of the birds due to changes in the local demand.

Therefore, H&N International closed a partnership with Evrenkaya Yumurta in 2023 to use their research farm to determine todays and tomorrow's H&N birds' requirements.

Evrenkaya Yumurta is a Turkish egg producer since 1930, produces some 1.5 million eggs per day and rears over 500.000 pullets of various breeds per year.

The research facility next to the commercial farm and the feed made at the feed mill of Evrenkaya Yumurta provide the realistic conditions for the research.

The H&N technical team wanted to replicate the same conditions as in many egg producers, therefore the nutritional requirements will be more accurate to the reality of the hens producing in farms anywhere around the world.

The nutritionist team in coordination with the genetic department develops and executes the trials. The facility with 144 family cages is helping to determine the amino acids requirements for different target egg weights using the same lighting program in the most efficient way by using low nitrogen diets.

The initial results are showing the versatility of the H&N birds, the same breed could produce different egg sizes just controlling the amino acid intake, no matter the lighting program we have done.

This egg size remains stable without significant variation unless the amino acid intake is changed.

This sensitivity to the amino acid intake opens the opportunity for egg producers and the nutritionist to make variations in the diets so the birds will produce the egg size the producer requires at any time.

In addition, the low nitrogen tested diets beyond the actual levels used in the industry showed a booster in the amino acid digestion efficiency and made the production more profitable. There has been time to learn the effect of different diets in high temperature conditions, more research is needed but the H&N tech team is confident that the learnings will help egg producers in hot climates around the world.



Somebody said, "great research should create more questions and research". H&N International is committed to learning and sharing more about hen nutrition with the egg producers. Today there is little research about hens in long cycles and even less when it is about the needs of the hens long-term. Most of the actual research is based on the use of different raw materials and feed additives.

H&N International was, is and will be committed to scientific research and bringing the latest knowledge and expertise into the market. The future goal is to develop new feeding recommendations, analyze yet more parameters, raise awareness of the feeding strategies and implementation of the new research at the feed of the egg producers.



... AND THE ARTY "BEST COMMERCIAL LAYER" GOES TO RECORD BREAKERS



## TWO CUSTOMERS WIN H&N AWARD FOR THEIR FLOCKS OF H&N BROWN NICK AND H&N SUPER NICK



IGANTIC! One word describes the results two egg producers achieved with their commercial flocks between 2021 and 2022. H&N International regularly picks the best flocks of commercial layers and parent stock birds each period.

In 2025 two prestigious crystal glass engraved Arty Awards for "Best Commercial Layer" will proudly be handed to the winners Avicola Pechichal, Ecuador for their amazing H&N Brown Nick egg mass results, and to a breeder in the Netherlands for the egg numbers of H&N Super Nick exceeding standards by far to a final of 565 eggs! Congratulations to both winners for their mindboggling successes!

A breeder in Ysselsteen, Netherlands who wants to stay anonymous despite – or because of? – this big achievement won the Arty for "Best Commercial Layers 2021-2022" H&N Super Nick

H&N Super Nick really is, well, a super-performer with an amazing proven track record! This periods winner proves it yet again, and very impressively so: Hatched in 2022 the H&N Super Nick layers achieved 512 eggs at 100 weeks with an egg mass of 32.56 Kilogram (which is 2,56 kg above the new standard of 30 kg at 100 weeks!). And the birds kept on and went even higher, reaching to 565 eggs at 111 weeks with an

This is a longevity and weight record at the same time"

incredible egg mass of 36.30 kg!

says Xabier Arbe, Managing Director of H&N International.

We know what our birds are capable of, but this surprised even our Geneticists!"

## Avícola Pechichal; Ecuador – Arty for "Best Commercial Layers 2021-2022" H&N Brown Nick

The flock of H&N Brown Nick hatched in 2021 achieved 13 eggs above standard and stayed for an incredible duration of 42 weeks above the 90 percent of production!





Ishmu Poultry Farms Ltd, Zambia

## PS: STARTING INTO NEW MARKETS



## NEW DISTRIBUTOR IN ZAMBIA STARTS DISTRIBUTING H&N PS BROWN NICK

International proudly welcomes Ishmu

Poultry Farms Ltd in Lusaka, Zambia, among the global network of Distributors.

Being an integrated brand with a lot of experience, Ishmu Poultry Farms Ltd so far excelled in successfully producing rare commercial hens of different breeds and producing eggs themselves.

&N

Now, for the first time, Ishmu Poultry Farms Ltd will also work as H&N Parent Stock Distributor in Zambia, with an estimated volume of 300.000 layer hens for a start. In parallel to H&N Brown Nicks' exceptional dark shell colour and leading shell strength also the breeds outstanding productive power and consistent performance convinced Ishmu Poultry Farms Ltd to partner with H&N International – and we look very much forward to working together!

Ngoc Mung Giong Gia Cam, Vietnam

## **BIG BUSINESS**

# H&N INTERNATIONAL WELCOMES NEW BROWN NICK DISTRIBUTOR IN VIETNAM



&N International proudly welcomes the Ngoc Mung Giong Gia Cam Joint Stock Company, Vietnam, among the global network of Distributors.

Two key criteria in particular proved specially convincing to this long-term experienced company to start producing for their own local markets: The high productivity of the H&N parent stock with regards to the number of saleable female chicks (up to 119 by week 75) and the high number of eggs in combination with the distinguishable rich dark eggshell of H&N Brown Nick.

H&N International looks very much forward to collaborate and support the production of an estimated volume of 2.5 million chicks per year.

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## PREDICTING POULTRY



**VETERINARIAN FOR RUSSIA AND CIS** 

Dr. Mikhail Malishev joined H&N International in May 2025 as Veterinary and Specialist for Avian Pathology for the Russia and CIS.

orn in 1971 in Yenakiyevo, former Soviet Union, he grew up in a rural part of town where his family kept some chicken in their backyard. Almost every free minute was spent with the animals, studying their behaviour in earnest fascination.

So much so that his father often tried to shift his son's interest also to other areas like repairing equipment. Mikhail recalls that he always liked animals, so pursuing a veterinarian career was a logic step after finishing school and starting to study.

The young Veterinary Medical Assistant of 1990 graduated a Doctor of Veterinary Medicine at the National Agricultural University, Kiev, in 1996.
Then, between 1996 and 1998
Dr. Malyshev worked in various assignments with a focus on cattle and pigs.

He was Head of Veterinary
Service on a collective farm,
served as Military Veterinarian
for farm animals but also for
the dogs of the National Guard,
before he started a private
practice as veterinarian for
various farms – all still focused
on cattle and pigs. But then
another role as veterinarian
pharmacy consultant was about

to change the footmarks on Dr. Malyshev's career path from the cloven-hoofed to claws.

Despite his still young age
Dr. Malyshev's solid experience
and convincing consultation left
a deep and lasting impression
on an older pharmacy
consultant, who offered him a
contact that resulted in a new
position as Head of Veterinary
Service at the big breeding farm
Landgut Broiler in 1998.

## Back to the Future

Back to poultry, yet everything seemed new. Despite needing to learn the many novelties and differences of dealing with chicken, here Dr. Malishev's early childhood observations paid off immensely, because he knew how to "read" the signs and understand the species quite well:

It's impossible to work with one individual chicken

as with other animals", he says. And believe it or not:

Chicken behavior is far easier to predict then, for example,

human behavior!"

His career had gotten wings and the next 20 years Dr. Malyshev

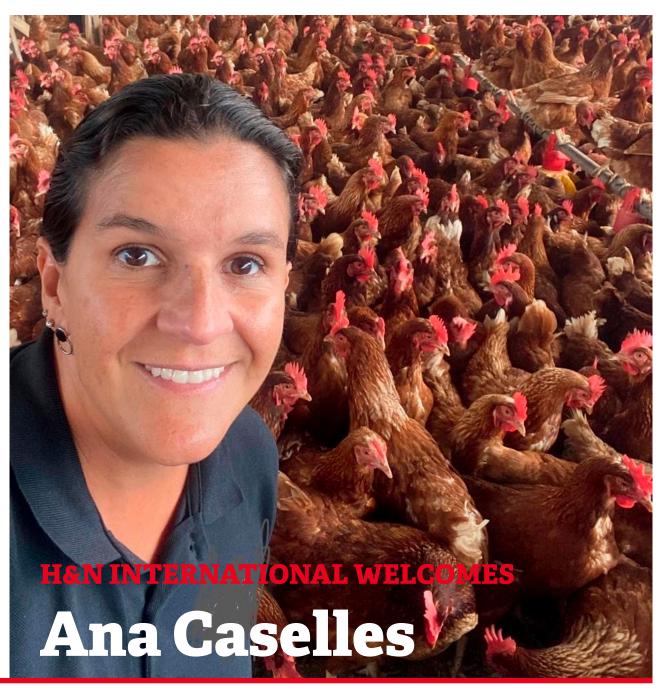


worked as Head of Avian Department for various leading poultry companies like Provet in 2003, Merial in 2009, then again with a focus on vaccines and Avian Pathology for Boehringer Ingelheim in 2017, and last but not least as Poultry Expert for PPR Sverdlovskiy until he received the call of H&N International in 2025. Before. in Merial, he had started out as one-man-team and successively managed to build a department consisting of 17 specialists in four areas covering vaccination, veterinary topics, marketing and sales. Sharing his expert knowledge and offering farmers education about anything poultry was part of the role but also required more and more time spent with people than with chickens. Yet Dr. Malyshev always enjoyed the fieldwork and made sure to never lose touch with the birds.

With such a strong destiny around chicken, what does he do in his spare time?
Dr. Malyshev has four children, three of them already grown up, and two grandchildren.
Whenever his lively family that also includes five cats leaves him time, he enjoys theatre, visiting exhibitions, walking in parks, good cuisine, and he always loves a good cup of tea.



## ORIGINATING FROM THE "YOLK-FOLKS"



H&N KEY ACCOUNT MANAGER BRAZIL & CENTRAL AMERICA

#### Where are you from? And what is your earliest memory about chicken?

I was born in Brazil, in Rio de Janeiro City on June 17th of 1980. Those people born in Rio City are known as "carioca da gema" it means "yolk carioca".

## ... Yolk-Folks, people from the very center!

Yes, in this sense I can say it was my very earliest contact with chicken and eggs. There is more, though: When I was a kid in Rio, I used to go to some animal exhibition fair with my family, and the gift to take home was a day-old chick. I took mine home and he grew up amongst all our other animals. Until one day I was made to eat him but without me knowing so, of course! He had ended up in a dish and was killed by the woman who was in charge to cook to my family, while I was away at school. When I found out that he was gone, and that our family had actually eaten him, I was

## What made you choose a career in agriculture?

I grew up in a house with very many different animals given that we lived in the city. We kept dogs, turtles, birds, a parrot, almost a little zoo! I loved them all. But when I told my father that I would like to become a veterinarian doctor, he forbade me to work with pets. In his experience pet owners could be extremely complicate to deal with and could render a veterinarian's passion to care for animals in the first place really difficult. So, I realized that my future would rather have to be in animal production. But, after all, I would still be able to work with animals when I would become a vet. Focusing on my studies and supported by my parents, I left home when I was 16 years old.

## Where did you study? What where major milestones?

I studied veterinary at State University of Santa Catarina in Brazil. This is a public university, so I didn't have to pay for those years of quality study. I'm very grateful for this. My mother made a public open speech in my graduation to thank the state for bearing the cost of that quality study for her daughter. It was a very special moment! The beginning of my career was in the same state, and it was a way to repay what I had received for free. During my studies, I did several internships in different areas of veterinary medicine, however I didn't yet have the opportunity to do it with poultry until last year.

## And yet you specialized in chicken? How come, and what fascinates you about them/the industry?

Luckily, I got the last period handling with all poultry chain in one of the biggest agro-industrial companies of Brazil, and after the mandatory internships they invited me to join the company as a regular employee. This opportunity made me fall in love with the fascinating poultry industry. And next, I was contracted to work in a huge hatchery producing many day old chicks.





## How did your career path unfold further?

I was very lucky to start my career working with some very good professionals who tought and mentored me from the early beginning. It was a broad and wide area of learning and an intense time of training. I was handling practices on the poultry farm like selecting and vaccinating birds, monitoring drinking and food intake, taking care of the litter quality for those birds in the field and to work directly with 120 people in a huge hatchery in the south of Brazil. I was very open to learn, and I didn't miss any opportunity to develop myself as a professional and as a person. It was not easy, and I learned a lot. It prepared me to leave this first job to work with in ovo-vaccination service for all Brazilian territory and learn yet more things with a lot of other people, different challenges in different regions of my country.



## It sounds like lifelong-learning is a key strategy to success?

It is! This attitude brought me into the position of vaccination and vaccines manager for a very important biological industry. Here I could audit, do trainings and help the prevention on the poultry industry. After that I decided to learn different technical things: I joined a pharmaceutical company as a technical manager to attend customers in a holistic way with desinfectants, antiparasitcs, antimicrobials and nutricional products for the poultry health. Those experiences helped me to see poultry production as if using a drone to get a top-view. Putting on this meta-perspective serves to prevent and solve problems with an integrated approach to contribute our poultry markets. I believe that the opportunities and the people I met along with my career, make all the difference.

### What is your new role now at H&N International?

In H&N International, I'm Key Account Manager for Brazil and Central America.

## With an amazing career under your belt already, what convinced you to change to H&N International?

I was again looking for new challenges, for something with a different scope, and I'm very proud to now be part of H&N International. With all my previous experiences from companies I worked for before I hope to contribute to achieving H&N's goals in the layer market and to collaborate to the egg production market to be more productive with quality and high-level service. I also believe that at H&N International we can contribute to producing the richest and most popular protein to feed the world safely, responsibly and sustainably.

## Your favorite way to spend quality time?

Spending time with my family and friends, at the beach or gathering with them around a barbecue grill laughing and sharing the moment under a very blue sky on a sunny day.

## What do you like to put onto that grill?

Anything good, specially good meat (picanha of couse!!!), pork belly and to accompany a potato salad with plenty of eggs prepared and shared with love and mindful consideration!



