Dear Friends and Colleagues of the World Egg Supply Chain:

Although 2023 presented its fair share of challenges, the resilience and capabilities demonstrated by the global egg producers and layer chick suppliers has been impressive. Their ability to overcome obstacles has been commendable, and I complement the talented individuals who contribute to this outstanding industry. As we reflect on 2023 and enter 2024, we remain committed to assisting you in the egg supply chain, aiming to enhance chick and egg output and promote sustainability.

In this newsletter, we’re excited to share our ongoing efforts for continual improvement. We’ve invested in expanding our genetic research program into South America with a new pedigree farm in Brazil. This move enhances our ability to develop the best layers for global markets and diversifies our supply sources, mitigating the risks to our elite breeding stock. Hy-Line researchers are focused on developing balanced, productive varieties at both the commercial layer and breeder levels to improve the supply chain.

Hy-Line International continues its global vision by expanding the genetic breeding program into South America. In late 2023, Hy-Line opened its newest research facility outside of the USA in the state of Sao Paulo, Brasil, housing pedigree lines used to produce Hy-Line commercial products. This strategic move will ensure the continuity and growth of the company’s operations while mitigating the risks of future business operations to best serve Hy-Line’s world customer base. This expansion will produce a treasure trove of new data which the research group will leverage to provide accelerated genetic gains in all of the Hy-Line varieties.

From a worldwide product supply standpoint, the investment allows more flexibility and an additional source of supply of the most up-to-date genetics. In addition, expanding the breeding program and stock beyond the USA mitigates the risk associated with the increased presence of diseases like avian influenza plaguing world markets. This further assures safety of elite Hy-Line stock with yet another location with the highest biosecurity precautions in place.

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Investing in the Future: A Message from the President

Hy-Line President
Jonathan Cade
Hy-Line has held several technical meetings during 2023, one example was the one held in Santa Marta, Colombia.

In this issue of Innovations, we would like to share insights on the outstanding layer breeder performance from our partner in Argentina, Cabaña Avícola Feller.

We also highlight the success of two of our distribution partners, Garanti in Turkey and Hy-Line Colombia in Colombia, both demonstrating a commitment to quality and customer support.

Lastly, I would like to update you on our sustainability project with Blessman International in South Africa. Children under their care now receive an egg per day, showcasing the egg’s value in addressing world hunger and supporting Blessman’s charity in meeting the nutritional needs of school children in South Africa.

As a strategic partner in the global egg supply chain, Hy-Line remains committed to continued investments and efforts in developing and supplying high-quality, productive, and efficient laying genetics to our distribution partners worldwide.

Here’s to making 2024 a year of success and growth as we work together to meet global challenges!

The impact of rising costs in the egg supply chain is well known and maintaining control of these costs starts at the hatchery. It is important that the breeding stock perform at a high level supplying high quality fertile eggs to the hatchery allowing it to efficiently and sustainably meet demand for day-old chicks.

Hy-Line recognizes that breeder performance should not take a back seat to commercial layer performance.

The traits of high rate of lay, persistency of lay, livability, shell quality and egg fertility are measured and improved each year through genetic selection at the pedigree level, which cascades down through the supply chain. More day-old chicks reduces the hatchery’s fixed costs per unit, helping keep costs to a minimum.

Today, Hy-Line sees extraordinary parent stock performance worldwide. Hy-Line recently recognized the distributor in Argentina, South America, Cabaña Avícola Feller, for achieving extraordinary performance in their Hy-Line breeders.

Cabaña Avícola Feller demonstrated high performance capabilities in both the Hy-Line W-80 and Hy-Line Brown breeding stock imported onto their farms. The 25-year distributor of Hy-Line chicks to Argentina exceeded 140 day-old chicks per breeder on their W-80 genetics, with average hatch rates of 42-43% female, requiring only 2.35-2.39 eggs to produce a chick. Their Hy-Line Brown flocks delivered more than 130 chicks per breeder hen with hatchability of 42% female, and an egg-to-chick ratio of 2.39, all excellent results. See more detailed data on the following page.

Dr. Raul Buthay of Cabaña Avícola Feller (third from left) receives the Outstanding Breeder Performance Award at Hy-Line’s recent regional breeder congress.
Hy-Line is witnessing similarly significant gains in parent stock performance around the world, allowing more day-old chicks to be produced each generation from the same investment in breeding farm resources. This is sustainability in action for the hatchery business and part of Hy-Line’s efforts to contribute to a more sustainable worldwide egg supply chain.

**Hy-Line W-80 Breeders:**
- 140+ chicks per breeder
- Average female hatch rate of 42–43%
- Egg-to-chick ratio 2.35–2.39

**Hy-Line Brown Breeders:**
- 130+ chicks per breeder
- Average female hatch rate of 42%
- Egg-to-chick ratio 2.39

### Cabaña Avícola Feller (Argentina) Parent Stock Results

<table>
<thead>
<tr>
<th>Variety</th>
<th># of Females</th>
<th>Age (wk)</th>
<th>Accum. Settable Eggs</th>
<th>Avg. Hatch Female</th>
<th>Eggs/DOC</th>
<th>Accum. DOC</th>
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</thead>
<tbody>
<tr>
<td>Hy-Line Brown</td>
<td>12,862</td>
<td>74</td>
<td>314</td>
<td>42%</td>
<td>2.39</td>
<td>131.0</td>
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<tr>
<td>Hy-Line Brown</td>
<td>12,883</td>
<td>65</td>
<td>278</td>
<td>42%</td>
<td>2.38</td>
<td>116.8</td>
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<tr>
<td>Hy-Line Brown</td>
<td>15,418</td>
<td>65</td>
<td>272</td>
<td>40%</td>
<td>2.41</td>
<td>109.9</td>
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<tr>
<td>Hy-Line W-80</td>
<td>11,847</td>
<td>74</td>
<td>336</td>
<td>43%</td>
<td>2.35</td>
<td>142.8</td>
</tr>
<tr>
<td>Hy-Line W-80</td>
<td>11,566</td>
<td>74</td>
<td>336</td>
<td>42%</td>
<td>2.37</td>
<td>141.6</td>
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<td>Hy-Line W-80</td>
<td>14,906</td>
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<td>336</td>
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<td>14,526</td>
<td>73</td>
<td>331</td>
<td>42%</td>
<td>2.39</td>
<td>138.6</td>
</tr>
</tbody>
</table>
Hy-Line Colombia: Leading the Andean Region

Hy-Line Colombia is the largest day-old chick provider to the Colombia day-old chick market, due to the Hy-Line Brown’s genetic attributes, excellent after-sales service, and because they offer the highest quality chicks to the market.

Their commitment to sustainability was recently recognized by the National Federation of Poultry Farmers of Colombia (FENAVI) under the Colombian Institute of Technical Standards and Certification (ICONTEC) with the Diamond award level due to the company’s commitment to the environment, social development of their employees, economic strength generated ethically, and animal welfare.

Hy-Line Colombia has also achieved compartmentalization for the hatchery and breeding farms for freedom from Newcastle Disease, Avian Influenza, Salmonella and Mycoplasma. The company is also SGS certified under ISO 14001, 9001, and 45001.

Hy-Line Colombia focuses exclusively on the marketing of day-old layer chicks. The company places the latest Hy-Line genetics on its company-owned all-in, all-out breeder houses, and chicks are hatched in their ultramodern single-stage hatchery.

Chicks are graded into three sizes, promising weight uniformity of more than 90% with each group, and infrared beak treatment is available from their antibiotic-free hatchery.

Hy-Line Colombia offers chick placings of up to 180,000 chicks via their company-owned environmentally-controlled delivery trucks, ensuring that the chicks maintain exceptional quality and post-hatch performance.

The company prides itself on maintaining timely deliveries of chicks of the highest quality with key performance indicators—99.99% flock livability upon arrival and 99.70% through seven days!

The Hy-Line Colombia sales and technical team offers service for the entire life of the flock. The team consists of seven doctors of veterinary medicine who are specialists in management, health and nutrition. Among the team, there is more than 200 years of experience combined, and most of that is specifically with Hy-Line layers.

The company offers their customers egg quality laboratory service and comparative flock performance evaluations on an anonymous basis. Their immense database houses records from millions of layers over the last decade-plus, allowing the technical team to assist customers to evaluate flock performance vs. local production standards and make adjustments to realize the full genetic potential of its Hy-Line genetics under local realities.

Hy-Line Colombia is committed to ensure that the genetics it delivers and the services meets and exceeds the expectations of the Colombian poultry farmer, guiding them through technical assistance to produce the highest quality table eggs at the best price.
Empowering Growth: An Industry Success Story

In October 2018, a groundbreaking collaboration took flight in the Turkish poultry industry, as Hy-Line proudly introduced the Hy-Line W-80 and Hy-Line Brown breeds to the market through our exclusive distributor, Garanti. Little did we know that this partnership would not only redefine success, but also contribute significantly to the evolution of the poultry landscape in Turkey.

Garanti has demonstrated an unparalleled commitment to excellence, transforming from ground zero to an astounding 220,000 Hy-Line breeders. This remarkable achievement has propelled Garanti to the forefront of the layer industry, solidifying its position as the second-largest layer hatchery company in Turkey with an impressive 30% market share.

What sets Garanti apart is not just its remarkable growth, but its unwavering dedication to quality. The company has played a pivotal role in supporting Hy-Line’s mission to deliver high-quality day-old chicks, not only to the local market, but also to regions as far-reaching as the Middle East and select East African countries. Garanti’s strategic expansion demonstrates a global vision and a commitment to elevating the standards of the poultry industry beyond national borders.

In the dynamic world of poultry farming, where performance is key, Hy-Line and Garanti’s collaborative effort goes beyond just providing breeds. Hy-Line’s dedicated technical service teams ensure that Turkish egg producers receive the optimum support they need. Frequent visits and personalized assistance guarantee that farmers harness the full genetic potential of Hy-Line varieties, resulting in enhanced performance and productivity.

The success story of Hy-Line and Garanti in Turkey is a testament to what can be achieved through collaboration, innovation, and a steadfast focus on delivering the best to customers. As we look ahead, partnership stands as beacon of inspiration for the poultry industry, shining example of how dedication and strategic collaboration can transform challenges into triumphs. The journey continues, and we are excited to witness the continued growth and success of Garanti as a major player in the global poultry market.

Technical Videos Now Available!
Visit hyline.com/resources to view recordings of past webinars and informational videos, along with Technical Update documents.
Hy-Line Celebrates First Latin American Brown Layer Seminar in Colombia

In November 2023, Hy-Line hosted nearly 400 egg producers from throughout the Latin America region and even as far away as Europe to the First Hy-Line Brown Seminar for Latin America in Santa Marta, Colombia. Together with strategic, industry partners, attendees were treated to 3 days of presentations by both Hy-Line personnel as well as industry experts on layer management, nutrition, sustainability, genetic selection, lighting programs, technology relating to housing, ventilation and egg-packing; the latest information on disease trends and vaccination strategies, and industry statistics for the region.

Attendees also had ample time during the multi-day format for networking with regional colleagues while providing invaluable feedback regarding market needs and genetic refinements to meet the expectations of brown egg producers.

During the event, Hy-Line hosted a 3k/5k Walk/Run event with incredible participation by the attendees. Participants generously raised funds which were provided to a local egg feeding program in Santa Marta called “Tras la Perla.”

The funds generated by the Fun Run purchased 23,400 eggs, which were donated to poor families living in the coastal region by “Tras la Perla.”

Hy-Line will continue to invest and organize similar events around the world in our efforts to support egg farmers. These types of educational efforts provide the venue for experts to share their knowledge on key aspects of the industry, provide networking opportunities, and roundtable discussions allowing for the exchange of valuable information all in the effort to promote optimum production results from Hy-Line genetics.
Hy-Line Sustainability: Fighting Hunger in South Africa

Hy-Line continues its partnership with Blessman International in Mokopone, South Africa. In October, we celebrated World Egg Day 2023 with the children of the Blessman feeding outreach. The children enjoy an ‘egg a day’ with their regular meals provided by Blessman International, produced by their local Hy-Line Silver Brown commercial flock. The children donned their Hy-Line International World Egg Day shirts and smiled for photos. To further the outreach, the Blessman team expanded the local feeding program to feed a previously unreached school in the nearby rural area which is known to have a high level of food insecurity.

Recently, Blessman launched a feeding program with these children, adding a double ration of two eggs each day, and with the help of the University of Iowa and the University of Venda of South Africa, a health study is in place to track the progress of the children under the new, improved feeding regime. Early feedback from the teachers is that the these children are responding very positively with increased energy, better focus on their studies, improved behavior and most of all, attendance is greatly improved as the school is able to offer these consistent meals.

By mid 2024, we will have formal results on the effectiveness of the feeding program and be able to share data on the benefits of daily egg consumption in the effort to combat malnutrition.

Low egg consumption and undernourishment plague most of Africa. Average per-capita egg consumption is reported to be less than an egg per week for the continent overall, which severely lags worldwide consumption figures of nearly 4 eggs per week. The egg is an essential tool to solving the problem of malnourishment on the continent. Better accessibility to eggs and overall promotion of egg health benefits are needed to bring African consumers to reach worldwide consumption levels. Hy-Line and Blessman International are doing our part to demonstrate the value of the egg and hope that data collected from this study will allow for further expansion of the use of eggs in the group’s already existing national feeding program, which reaches some 60,000 children in the country today.
Hy-Line Employee Spotlights

EMPLOYEE SPOTLIGHT
VALERIY STEPANENKO
Hy-Line Regional Business Manager - Europe

Hy-Line is like a big international family sharing great team spirit with bright individuals working as one. I am proud to be a part of Hy-Line for the last 17 years.

PRINCESS C. CORTEZ
Technical Specialist & Lead Nutritionist

Every day is unique. I travel to Southeast Asia, interact with diverse cultures, work with layer producers and help farmers to success with Hy-Line birds which makes my job fulfilling and meaningful.

EMPLOYEE SPOTLIGHT
LUKE KRAMER
Pedigree Geneticist

Hy-Line is an enriching place to work and has increased my enjoyment and enthusiasm of working on something slightly different every day.
Follow Hy-Line on Social Media

In our efforts to share the latest Hy-Line and industry information, Hy-Line continues to expand the use of social media to reach egg producers, colleagues in the egg supply chain, and consumers. Hy-Line news, technical topics, genetic updates, industry trends, and various announcements are shared on Facebook and LinkedIn.

In addition to our global pages, Hy-Line has recently launched Latin America, Southeast Asia, and Indonesia pages on both platforms, in order to showcase more regional content. Please access these pages and follow us.
India Poultry Pioneer Named International Egg Person of the Year

During the International Egg Commission’s annual meeting held in Banff, Alberta, Canada, the group annually recognizes the world’s top contributors to the egg industry via the Denis Wellstead Award for “International Egg Person of the Year.” At the October 2023 meeting, this honor was bestowed upon Mr. Chitturi Jagapati Rao, Chairman of Srinivasa Farms, India.

Mr. Chitturi was recognized for his lifetime of dedication to the poultry industry, beginning in 1965, and his outstanding contributions to the Indian poultry sector. He has been a pioneer, helping to lead the Indian egg sector to the modern powerhouse it has become today.

India is the second-largest egg producing country in the world behind China. Egg consumption is on the rise in the country, as the egg becomes a more common feature within the Indian diet but with much more room to grow.

In November, Mr. Chitturi was further recognized for this honor in front of 500 poultry professionals during the Poultry India Expo in Hyderabad. Hy-Line offers our kudos to Mr. Chitturi for his lifetime achievement of increasing the presence of affordable egg protein to India, as he has helped usher in advancements in genetics and technology to the industry.

Mr. Chitturi Jagapati Rao, Chairman of Srinivasa Farms, India (seated) is showered with accolades by the Hy-Line International and Srinivasa executive teams. Srinivasa distributes Hy-Line genetics to India.

Hit the Target

Achieve more eggs in the profitable egg weight categories at the best feed efficiency.
Contact your Hy-Line representative to learn more.
Clear the Hurdles

Every Hy-Line layer is bred with our superior genetics to breeze past challenges while speeding toward prolific egg numbers.

Contact your Hy-Line representative to learn more.

New Breeding Facility continued from p. 1

This facility will help Hy-Line in our commitment of quick, reliable, high quality supply of breeding stock to our worldwide distribution partners and assure the long-term success and sustainability of the business. The company “Layer Genetics Brasil” will oversee the facility under the ownership and direction of Hy-Line International.

This expansion into Brasil is part of an overall ‘internationalization effort’ in the breeding program by Hy-Line in recent years, preceded by investments in other overseas research efforts in India and Mexico. The farms allow Hy-Line to develop birds that better adapt to local conditions by selecting birds under different environmental conditions and feeding protocols. In addition, the expansions provide opportunities to evaluate Hy-Line varieties for specific traits such as nesting behavior which has grown to be a significantly important trait as non-cage production grows in popularity.

These pedigree farm investments, together with the long-established field-testing program championed by Hy-Line, has helped the research team to develop robust layers which live and thrive under less-than-ideal conditions.

The breeding program expansion beyond the USA into Mexico, Brasil and India puts Hy-Line pedigree stock under evaluation in four of the world’s top 10 egg-producing countries. Hy-Line white, brown and tinted egg varieties are developed to meet egg producers’ needs worldwide as part of Hy-Line’s continued efforts to help customers achieve production and sustainability goals.

Hy-Line will continue to invest internationally to assure a reliable supply of the latest genetic product, reduce the risk of any local impact to pedigree flocks by decentralizing the genetic supply to multiple worldwide locations, and develop varieties that more closely match each country’s producers’ demands.