

Crossline Trials

Bridging Genetics and Real-World Conditions

AT LOHMANN BREEDERS, OUR MISSION IS TO ENHANCE AND ADAPT OUR BREEDS TO ENSURE OPTIMAL PERFORMANCE IN THE DIVERSE ENVIRONMENTS OUR CUSTOMERS ENCOUNTER WORLDWIDE. **From the simplest housing conditions to the most technologically advanced cage-free aviaries or conventional systems, we focus on improving efficiency by adapting our birds.**



By delivering the best-performing birds, we not only help increase the profitability of our customers' operations but also contribute to a better carbon footprint in the food chain year after year—or as we like to say in genetics, generation after generation.



GENETICS
by LOHMANN

One of our key tools is the crossline test. By placing pedigree crosses in commercial situations, we can analyze the performance of individual hen families, allowing us to track the performance of each family in a given environment.

This enables us to select the most adapted birds more precisely for specific conditions. We have been using this approach for many years.

Recently, we have extended this approach to Brazil, where we are working with crossline pedigree birds.

Bringing crossline pedigree individuals out of the pure line environment is an efficient way to accelerate the genetic improvement and adaptation of our breeds. Through crossline trials, we aim to select birds best adapted for conditions such as open houses, high light intensity, and heat stress.

Dr. Olímpio de Miranda (Planalto Postura) actively working on egg trait measurements of each family

LOHMANN BREEDERS is a pioneer in this concept in Brazil, and our crossline flock kick-off has been conducted in partnership with the Faculty of Veterinary Sciences at the Federal University of Minas Gerais (UFMG), where the first results are already being harvested.



Birds are wingbanded at the hatchery, allowing us to track which family each bird belongs to. When transferring them to production houses, we scan all birds and arrange them in cages to ensure secure data collection on a family basis for the different breeds we develop, both for Brazil and other countries.

On the left, Dr Marcos Borges from LOHMANN do Brasil helps the geneticist from Germany, Dr Lina Hattendorf to scan and assign the right location of a specific hen.

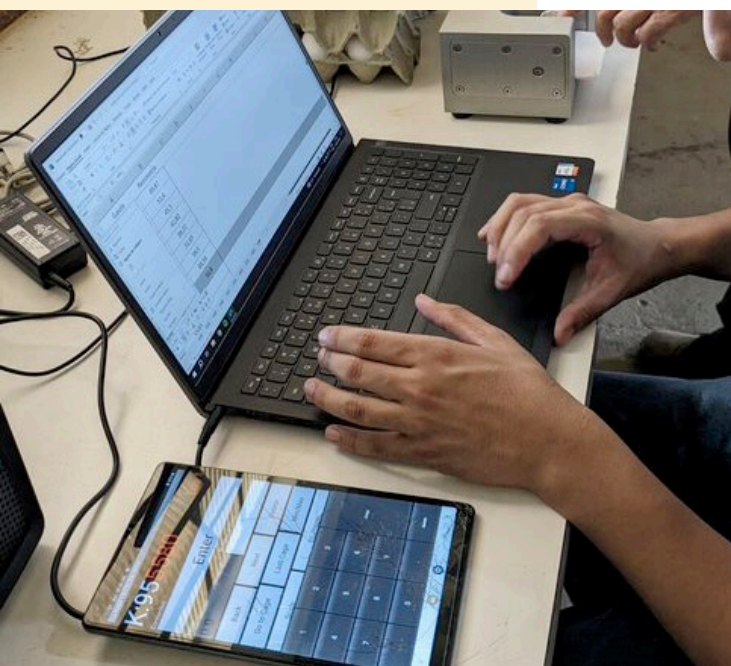


With the support of local staff, under the supervision of **Prof. Leonardo Lara** and **Itallo Araujo**, and our technical teams from Brazilian distributors **LOHMANN do Brasil** and **Planalto Postura**, we meticulously manage data collection.

This data is entered into a system directly linked to our genetic database in Germany, allowing real-time monitoring of key performance metrics. These metrics include production rates, mortality, egg weight, egg quality, livability, feather score, and more for each family and breed of our white strains placed around the world.

Brown breeds are scheduled for future placements, alongside the currently challenged white varieties. We plan to strengthen this strategy further in Brazil and other hot climate countries.

On the left, data is collected and sent directly to the German database.



Crossline trials, along with various other genetic improvement tools, are vital to our mission of delivering robust birds well-adapted to challenging conditions like open houses and hot climates. **This initiative underscores our commitment to continuous genetic enhancement, ensuring our customers receive the best-performing birds for their specific needs.**



On the right Picture, our R&D Director Dr Matthias Schmutz shows Thomas Calil (Global Product Manager) and Matheus Fraga (LOHMANN do Brasil) some important selection traits and identification of a hen.

In conclusion, our crossline trials represent a significant advancement in our mission to deliver high-performing, adaptable birds to our customers worldwide. By leveraging cutting-edge genetic analysis and real-world testing environments, we can boost the efficiency and sustainability of poultry production.

Our pioneering efforts in Brazil demonstrate the notable benefits of these trials, from improved bird performance under challenging conditions to real-time data monitoring that supports our breeding strategies.

As we continue to innovate and refine our methods, we remain committed to providing our customers with the best genetic solutions, ensuring their success and contributing to a more sustainable food chain for future generations.