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ANOTHER **SUCCESSFUL PROJECT**

Dear Partners and Readers,
Bábolna TETRA Ltd. has reached another significant milestone this year. The **ACCREDITED LABORATORY** for high-level research development, veterinary, and quality assurance tasks in **URAIÚJFALU** was opened and began its operation.


DR. FERENC SZENTGYÖRGYI

We have come a long way so far. In the early 2000s, it all started in the basement of the current office building, in a small, tiled place. At that time, we began to examine Mycoplasma synoviae and fowl typhoid status on a microscope slide by whole-blood agglutination. When there was doubt or ambiguity about the results, the new blood-taking samples were forwarded to an "external" laboratory to determine the substantive outcome. Those days were full of excitement and anticipation. We did not have the opportunity to do further tests. The vaccination effectiveness of our flocks could be measured only by these external laboratories, and we had to wait for the results for days or even for weeks.

As the flock number increased at TETRA and the need for higher safety arisen, TETRA management decided to expand the range of its testing possibilities. In the early 2010s, after eliminating the initial difficulties, we started doing ELISA tests with the help of Hungarian and Dutch experts. It was already a significant step forward, as we had the opportunity to develop a detailed monitoring program that we considered effective. We continuously controlled the results and effectiveness of the vaccination we used in our immunization program in all our flocks. This test method helped us reveal the possible viral origins and backgrounds of clinically and pathologically unclear veterinary problems and enabled a leucosis screening program initiation and implementation. There was no need to wait for days, and if necessary, the results of each test could be found out and evaluated within a few hours.

However, it was only one segment of a secure flock control. We still could not perform bacteriological tests, toxin tests from feed, and PCR technology was only a future option. By the end of the decade, the availability of tender projects made it possible to upgrade the laboratory to a high-quality standard and build a lab that meets our increased expectations and the needs of genetic-breeding and veterinary-quality assurance. TETRA completed the work with considerable financial efforts, months of hard work, and overcoming pitfalls. This year, in May, the TETRA Laboratory complex received its accredited certification, which allows us to provide additional quality services to our partners.

Many thanks to all of our colleagues involved in the implementation of this project.

DR. FERENC SZENTGYÖRGYI | Chief Veterinarian

Photo: Ildikó Búza

TETRA **DUAL-PURPOSE HYBRIDS** AROUND THE WORLD

IT WAS IN THE 1970s when the breeding of the dual-purpose backyard hybrids began in Bábolna. They have rapidly become widespread in Hungary and later, on the markets of the surrounding countries as well, almost totally replacing the formerly popular yellow Hungarian and New Hampshire breeds. Since then, the variety choice has widened, and these days the species are sold in several places around the world, fulfilling the needs of the local market requirements.

TETRA HB COLOR *SUPER HARCO* *TETRA-H*

TETRA offers two types of dual-purpose (i.e., chickens raised for both meat and eggs) hybrids: TETRA-H and SUPER HARCO. Due to their slightly different characteristics, they target a broad range of customers. Furthermore, keeping the two breeds together means a beautiful and colourful flock in the backyard, plus ensures a balanced production., Even under backyard conditions, the brown-feathered TETRA-H produces an outstandingly high number of eggs (230-250 eggs/12 months). As for the barred-feathered SUPER HARCO, it is famous for its excellent growth rate. The body weight of a rooster can reach 2.3-2.5 kg within 12 weeks. Our meat-producing, colour-feathered hybrid TETRA HB COLOR is also suitable for small private farms. Its medium growth rate enables delicious, premium quality meat with a unique texture. Besides, the bird is highly resistant.

Traditionally, these hybrids are sold as day-old chicks for chick retailer shops in Hungary. The retailer's customers are small farmers raising birds till 3-5 weeks of age and end-users who keep poultry in villages for meat and egg production purposes. Abroad, TETRA sells its hybrids to distributors raising point-of-lay pullets, and year after year, delivers more and more day-old parent-stocks to growers of remote markets for commercial day-old chick production purposes.

It is important to highlight our long-established commercial chick market in Romania, where our partners have a well-organized distribution system for selling coloured backyard hybrids, satisfying seasonal demands all around the country for years. However, we sell TETRA backyard poultry to private farmers or small farms in Austria, Italy, Slovakia, Slovenia, Croatia, Albania, Kosovo, Moldova, Ukraine, Poland, Lithuania, and Belarus.

There is a considerable demand for TETRA HB COLOR in Russia for the significant growing characteristics of the bird. It is kept outdoors under free-range conditions in many places and performs outstandingly. SUPER HARCO, with

its large body size, is also very popular. Buyers value its performance, plus they like the diversity of the chick yard and the beauty of the birds.

Breeding companies are targeting customers preferring premium quality on the European dual-purpose hybrid market. Due to that, Bábolna sells more and more birds to certified or organic farms. However, there are several places around the world where the only family income comes from keeping dual-purpose chickens in the backyard. As TETRA hybrids have excellent performance compared with local breeds, they guarantee far greater profitability. By this, they help to fight poverty, increase food security, and even strengthen women's roles. It also contributes to secure self-sufficiency, a need that has become an even higher priority during the pandemic.

TETRA-H parent stock (Ethiopia)

THANKS TO THE BREEDING PROGRAMME, DUAL-PURPOSE HYBRIDS CAN WITHSTAND EXTREME CONDITIONS.

Dual-purpose day-old chicks (Senegal)

HB Color flock in free range husbandry (Russia)

SUPER HARCO flock in free range husbandry (Italy)

There are numerous poultry projects in Africa aiming at providing well-performing backyard dual-purpose hybrids for the population. Due to the breeding programme, these birds can withstand extreme conditions such as hot climate, less expensive or lower quality feed, feeding on garden waste, or scratching around the house.

TETRA has a considerable amount of parent stocks in Asia, namely in Bangladesh and Nepal. Unfortunately, COVID-19 did not assist our market development in the area. Neither could we meet our potential customers, nor could we deliver chicks. Additionally, the pandemic somewhat limited further distribution of poultry within the countries, where commercial chick demand has dropped on the local markets where most of these birds are usually sold.

There is a growing demand for our hybrids in the Middle East (Kuwait, Oman, Qatar, Saudi Arabia) owing to the tendency that countries having high oil revenues or a lot of accumulated capital are making large-scale investments in new agricultural projects in the 'middle of the desert' to secure their food supply. It is a question of national security in many places.

We hope that TETRA can meet different market needs and objectives with its dual-purpose hybrids. By this, we can contribute to the development of the local poultry industry in several places around the world.

FEJK NIKOLETTA | Head of Key Account Department

A NEW, MODERN LABORATORY COMPLEX

THE FULFILMENT OF BREEDING AND VETERINARY OBJECTIVES OF BÁBOLNA TETRA MORE EFFECTIVELY

BÁBOLNA TETRA USED TO HAVE A SMALL LABORATORY in the basement of the central building in Uraiújfalu for decades to support the company's R&D and veterinary projects.


TETRA Laboratory

Bábolna TETRA Ltd. was able to increase its sales in the past years, because of which the development of its production backup has become inevitable. As more tender opportunities were available in Hungary, the company could make a significant investment into sufficient quality control of its veterinary services, plus TETRA can also carry out part of its breeding programmes under better conditions. The refurbishment and extension work of the former laboratory began in the summer of 2020. The primary purposes of the investment from the beginning were obtaining a certificate of accreditation and founding the TETRA Laboratory that can operate as an independent service unit. The almost eight-month-long reconstruction was somewhat challenging as constructors had to build a facility that meets the highest quality standards, i.e., install air-conditioners, new doors in thick walls, plus the air circulating and cleaning apparatus behind the drywalls providing sterile conditions in the rooms operating in the approximately 200 m2 laboratory. Following these successful arrangements, the new complex of the breeding company became accredited in May 2021, and its nine employees were ready to render services to its potential partners with the help of the latest laboratory technology.

They administer serological (ELISA) microbiological and PCR tests in the new units. In the former areas, they operate as service providers, and the latter is to accomplish the research purposes of the company. Modern laboratory equipment such as the 4-wavelength absorbance reader and pipettes of different capacities are available to conduct serological tests from serum with Dutch, Spanish, and French-made antibody or antigen-based detection kits. One can find touchscreen incubators, laboratory refrigerators, scales, and two autoclaves stored in a separate room to sterilize testing equipment and hazardous waste in the microbiological laboratory. Besides, the laboratory staff continuously monitor the vaccination effectiveness and the Salmonella infection of the company's flock.

Part of Bábolna TETRA's R&D work takes place in the new egg testing and PCR units. It is essential to do quality tests for eggshell colour, shell strength, protein content, and egg weight During a breeding project. TETRA has all the necessary equipment in the laboratory to administer such tests; there is a Bröring-type breaking strength tester, a Konica Minolta equipment measuring egg colour, a digital scale, and a protein content analyser. A recently bought real-time PCR machine plays an outstanding role in genetic research as flocks can be selected more efficiently with the help of genetic markers. Besides rendering laboratory services, the microbiological unit also participates in the research work and PCR testing. It includes an ongoing project that compares microbiological background contamination of different housing systems in terms of E Coli infection with the help of various sample matrices. In addition to the microbiological laboratory, TETRA Breeding considered it relevant to get accreditation for the tests undergoing in the previously founded ELISA laboratory. By being accredited, TETRA can guarantee reliable test results for its customers that conform with regulations concerning accreditation. TETRA Breeding is licensed to perform 32 kinds of certified testing, and the facility expects to have clients mainly from the poultry industry.

As for microbiological testing, the laboratory can perform accredited tests for Salmonella offering several kinds of sample matrices (samples of primary production, animal excrement, organs, livestock environment samples, Meconium contaminated chick-paper, and dead day-old chicks (dead-in-shell chicks and Salmonella boot swab kit). TETRA Breeding performs the following accredited tests in the ELISA laboratory:

- 18 poultry diseases (EDS, IBV, NDV, IBD, MG, MS, AE, ART, CAV, AI, BLS, FAdV, ILT, NDV-F, ORT, REO, REV, ALV),
- 5 cattle diseases (Brucella abortus, IBR gB, IBR gE, paratuberculosis),
- 3 pig diseases (PRRS, PRV gB, BLV, Brucella abortus),
- 5 feed toxins (ochratoxin, T2/HT2, zearalenone, aflatoxin B1, DON). The government funds cattle and pig disease analyses that enable the testing of large livestock farms as well.


TETRA Laboratory

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TETRA LABORATORY **TEAM**

Piroska Ilona Kovács *Ivett Bíró* *Anikó Dováncki* *Dr. Anita Köteles* *Sára Karakai* *Anikó Dulicz Koloszárné*

DR. ANITA KÖTELES

I have been working for Bábolna TETRA Ltd. since 2017 as a veterinarian. In addition to the veterinary supervision of poultry farms and hatcheries, I supervise the laboratory operation professionally. Previously I gained experience in the daily veterinary care of 1 million breeding poultry per year and other livestock farms (pigs, cattle) plus pet practice. Such background assisted the service laboratory launch in 2021 to primarily meet partners' needs and help with everyday challenges.

SÁRA KARAKAI

Since April 2020, I have been working as a Laboratory Manager at Bábolna TETRA Ltd. Besides managing the serological laboratory, my task was to order the newly established microbiological and PCR laboratory equipment and obtain the test accreditation for the whole laboratory unit. Furthermore, in addition to coordinating the general operation of the laboratory, I also participate in the veterinary and genetic research of Bábolna TETRA Ltd.

ANIKÓ DULICZ KOLOSZÁRNÉ

I started to work for Bábolna TETRA Ltd. in January 2018. From the beginning, I had the opportunity to learn how to do serological tests. In the autumn of 2019, I participated in theoretical and practical training in ELISA and PCR tests organized by Biochek in the Netherlands. Since then, I have been making ELISA tests to monitor our flocks, supplemented by other tests ordered by partners. In addition, I am involved in research of the company, such as egg quality tests and leucosis screening.

ANIKÓ DOVÁNCKI

I have been a member of the Bábolna TETRA team since the spring of 2019. I performed daily routine tasks and egg quality testing in the serological laboratory for more than a year. During my work at the farms, I got acquainted with poultry battery cage systems and the daily tasks at the chicken house. I participated in the vaccinations according to the monitoring program. When the construction finished at the microbiological and PCR laboratory, the activities related to the incoming samples became my daily duty.

PIROSKA ILONA KOVÁCS

I have been working for Bábolna TETRA Ltd. for more than a decade. During this time, I was able to gain insight into various work processes of poultry breeding. Thanks to this, I have been working for the veterinary team for 4 years as a veterinary technician. My job includes daily laboratory technician tasks and assisting geneticists.

IVETT BÍRÓ

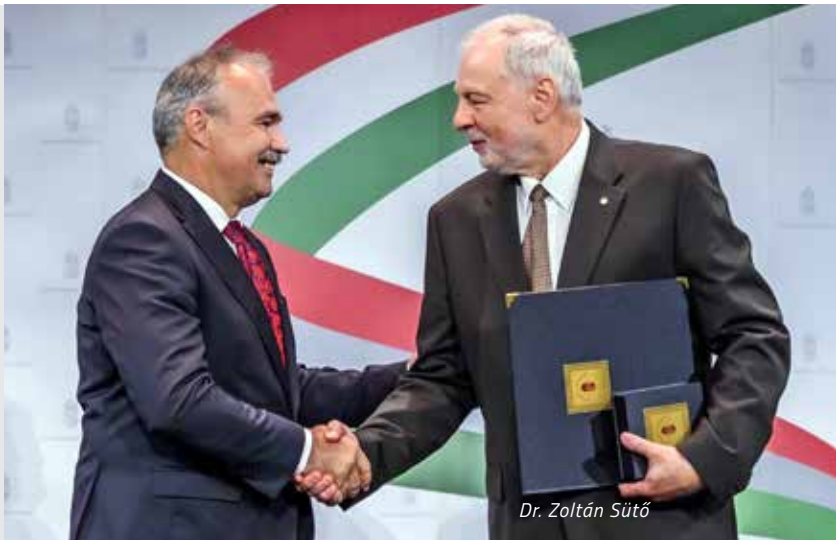
I joined Bábolna TETRA Ltd., my first working place, more than 20 years ago. Thanks to many years of professional experience and the new tasks provided by the developing laboratory unit, I moved to the veterinary technician position in 2020. In addition to the veterinary monitoring of the flocks, my daily works are laboratory technical and other genetic work supporting tasks.

OUR ONE-MINUTE **NEWS**
from the last three months

AUGUST 20, 2021

At the award ceremony held on 20th of August, Dr. István Nagy, Minister of Agriculture presented state and ministerial probates to the prominent specialists of agriculture.

The Darányi Ignác Award was presented to Prof. Dr. Zoltán Sütő, professor at the Institute of Animal Science of the Hungarian University of Agriculture and Life Sciences, for his work in the field of poultry breeding and his tutorial activities, with which he also contributed to the research and development work of Bábolna TETRA Ltd.



Dr. Zoltán Sütő

FARMER EXPO, Debrecen, Hungary

AUGUST 17, 2021

This year, Bábolna TETRA Ltd. and Bábolna Brojler Ltd. participated with a joint booth and several exhibited breeds at the Farmer Expo held in Debrecen between 17 and 20 August, where we proudly received the grand prize of Poultry Breeding.

JUNE 30, 2021

TETRA-H dual-purpose and TETRA-SL LL brown layer breeder chicks were delivered to Ethiopia as renewal of former parent stock flocks to maintain local day-old chick production continuity.

Parent stock shipment to Ethiopia

LET'S GET TOGETHER

Baromfi agarzat

ETHIOPEX
Ethio Poultry Expo

SEPTEMBER 23-25, 2021
XXVIII.
ANIMAL HUSBANDRY AND AGRICULTURE EXHIBITION

Hódmezővásárhely, Hungary
The Exhibition Showground of Hód-Mezőgazda Zrt.

OCTOBER 5, 2021
"SUCCESSFUL POULTRY PRODUCTION 2021." SYMPOSIUM

Budapest, Hungary
Lurdy Conference and Event Center

OCTOBER 28-30, 2021
ETHIO POULTRY EXPO

Addis Ababa, Ethiopia
Ethiopian Skylight Hotel

TETRA
SELECTED FOR QUALITY

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