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TETRA NEWSLETTER

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Photo: Ildikó Búza

OUR LATEST IMPROVED, COLOURED BROILER BREEDS ARE INTRODUCED

THE GENETIC DEVELOPMENTS OF BÁBOLNA TETRA are also proceeding at a high pace in the line of coloured meat hybrids.

TETRA HB COLOR is a slow-growing broiler with economical husbandry but extremely tasty meat and brown plumage, as well as the newly developed TETRA HT with high heat tolerance and partially naked neck. TETRA HT has similar good parameters, the palatability of its meat is the same as TETRA HB COLOR. Our article entitled "Bábolna TETRA coloured broiler products: TETRA HB COLOR and TETRA HT" presenting them.

At large-scale farm level, keeping laying hens in cages was decisive for decades, and even today it represents a very significant share. In accordance with international efforts, cages in Europe have become more and more modern and comfortable in favour of animals' and consumers' expectations. As a step forward, alternative - deep litter, slatts, aviary and free range - systems are developing rapidly. With such rearing and egg-laying conditions, the prevention of feather pecking and cannibalism is an important challenge for animal keepers. The number of countries whose regulations prohibit beak trimming, is also increasing. This intervention previously played a significant role in preventing bad habits caused by pecking. In addition to the fact that breeding companies make proposals for the conditions of rearing chicks and producing commercial eggs in accordance with the needs of their breeds, as Bábolna TETRA does, it is advisable to review the experiences that state universal truths regardless of breeds.

In our one-minute news, we report that TETRA received the GRAND PRIZE of POULTRY BREEDING at XXIX. Animal Husbandry and Agriculture Exhibition in Hódmezővásárhely. From Algeria to Thailand, TETRA breeds are successful all over the world. The popularity of TETRA breeds spreads from The Netherlands to Nigeria, which we continue to promote at exhibitions.


DR. ELŐD BAJCSY

DR. ELŐD BAJCSY | Veterinary Expert on Poultry Medicine

BÁBOLNA TETRA **COLOUR BROILER PRODUCTS**

TETRA HB COLOR AND TETRA HT

Bábolna **TETRA DUAL-PURPOSE HYBRIDS** have sold well domestically and internationally since the 1980s.

TETRA-H and SUPER HARCO are popular with producers who want to keep the males to 10-12 weeks of age for their meat and the females for their eggs of the same breed. However, to serve their dual purpose, these male and female hybrids produce less meat.

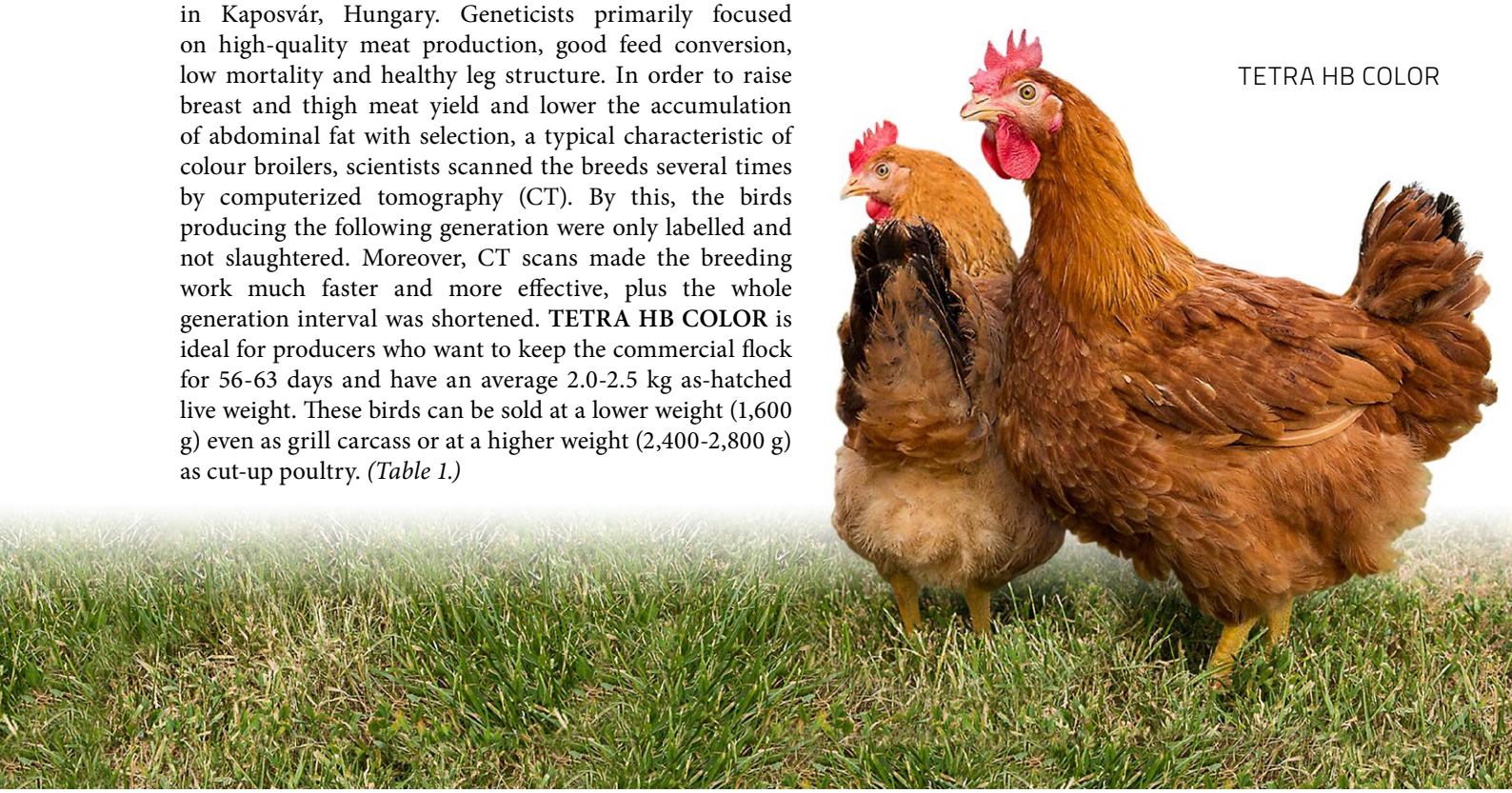
During decades of international market and breeding activities, primarily in layer hybrids, Bábolna TETRA faced increasing customer demand for colour broiler breeds. Therefore, the company began its breeding projects in 2008 by applying to international breeding funds. The outstanding selection programme of the past 14 years resulted in two medium-growth, red-feathered, premium-quality meat-producing hybrids, breeding flocks, offered for present and future customers.

The **TETRA HB COLOR** breeding program started in 2008 with the co-operation of the Agricultural University in Kaposvár, Hungary. Geneticists primarily focused on high-quality meat production, good feed conversion, low mortality and healthy leg structure. In order to raise breast and thigh meat yield and lower the accumulation of abdominal fat with selection, a typical characteristic of colour broilers, scientists scanned the breeds several times by computerized tomography (CT). By this, the birds producing the following generation were only labelled and not slaughtered. Moreover, CT scans made the breeding work much faster and more effective, plus the whole generation interval was shortened. **TETRA HB COLOR** is ideal for producers who want to keep the commercial flock for 56-63 days and have an average 2.0-2.5 kg as-hatched live weight. These birds can be sold at a lower weight (1,600 g) even as grill carcass or at a higher weight (2,400-2,800 g) as cut-up poultry. *(Table 1.)*

TETRA HB COLOR cut-up-parts ratios

Age (days)	Body weight (g)	Thigh (%)	Breast fillet (%)
	Jérce		
49	1600	21	14.2
70	2400	21.7	16.7
Age (days)	Body weight (g)	Thigh (%)	Breast fillet (%)
	Kakas		
42-49	1600	22.1	13.5
56-63	2800	22.5	15.8

Table 1. TETRA HB COLOR medium-growth, colour broiler cut-up-parts ratios



TETRA HB COLOR

The **TETRA HT hybrid** (HT=Heat Tolerance) breeding project between 2017-2021 began with the help of an EU tender. Besides good meat-producing quality, geneticists aimed at breeding poultry that tolerates extreme environmental (primarily climatic) conditions. Using the benefits of 'naked neck poultry' genes, Bábolna TETRA launched a niche product on the alternative colour broiler market. Using 'feathered neck' TETRA HB COLOR baselines to crossbreed with 'naked neck poultry', occurring in low numbers in colour broiler lines, geneticists produced a new male subline. In order to produce a new hybrid, the geneticists did several on-site trials to monitor the development, meat production capacity, mortality and behaviour of the experimental crossbred genotypes for 63 and 70 days during the hottest summer months. Later the birds were slaughtered for trial to record the most important parameters (live weight, carcass yield, breast yield and thigh yield). Finally, trial after trial, the geneticists rated the groups based on all the recorded results. Within those 5 years, the pedigree stock became more complex individually and as a family. There was continuous heat-stress monitoring of male and female lines, statistical evaluation and selection. The heat tolerance capacity of the new genotype is 15% better than that of any other TETRA broiler hybrids. At 63-70 days, birds reach 2.5-3.0 kg slaughtering weight. *Table 2.* shows the breed's other significant characteristics.

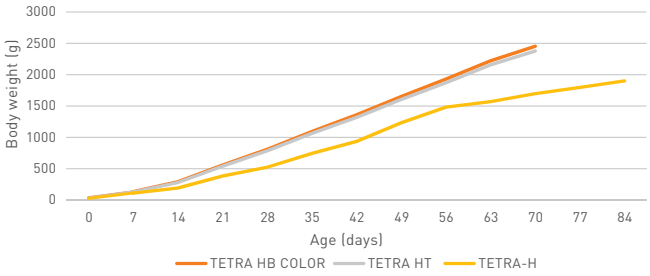
TETRA HT Colour broiler characteristics

Liveability	
0-70 days	93-95%
Body weight (day 70)	
Females	2379 g
Males	3050 g
As-hatched	2714 g
Feed consumption (0-70 days)	
Females	6.6-7.0 kg
Males	8.0-8.4 kg
As-hatched	7.3-7.7 kg
Feed conversion ratio	
Females	2.91 kg/kg
Males	2.71 kg/kg
As-hatched	2.81 kg/kg

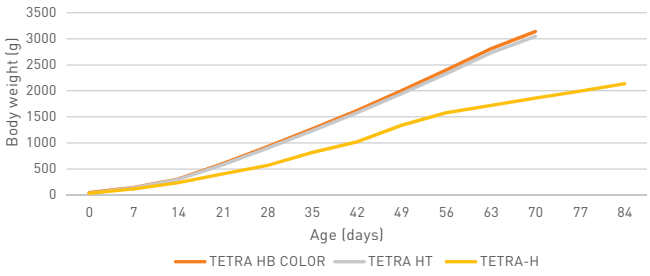
Table 2.

These two TETRA colour broiler hybrids are an excellent choice for those poultry farmers who want to keep free-range chickens or care for premium quality meat. It is also popular with producers who look for hybrids with low-quality feed tolerance, low mortality rate and excellent heat-stress management. TETRA HB COLOR and TETRA HT have similar meat-producing capacities. The latter is primarily recommended in hot climate countries. The two graphs below clearly indicate the recommended slaughtering age and show the difference in body weight development of each hybrid and TETRA-H and the dual-purpose birds *(Graph 1., 2.)*

Graph 1. Body weight development comparison of Bábolna TETRA broiler and dual-purpose hybrids (female)



Graph 2. Body weight development comparison of Bábolna TETRA broiler and dual-purpose hybrids (male)



With its extensive and modern research laboratory infrastructure and internationally recognised professionals, Bábolna TETRA keeps developing its layer, dual-purpose and broiler hybrids and provides quality products and partnerships for its customers.

DR. ANITA ALMÁSI | R&D Analyst
Bábolna TETRA Ltd.

FEATHER PECKING AND CANNIBALISM PREVENTION

IN LAYER-TYPE PULLET STOCKS KEPT IN ALTERNATIVE SYSTEMS

PART 1.

Feather pecking and cannibalism are considerable challenges for **LIVESTOCK FARMERS KEEPING LAYERS IN DEEP LITTER, AVIARY OR FREE-RANGE SYSTEMS**.

One of the practical solutions for this bad behavioural habit is beak trimming; however, it has become forbidden in more and more countries. Besides giving livestock management advice regarding the specific breed on pullet raising and egg production, breeding companies should consider offering general recommendations for the above topic.

Let us begin with some facts about feather pecking and cannibalism. There are various ways to **feather pecking**: flock mates can pick at the feather end of another chick, pick and pull out the feather or even eat each other's feathers. **Cannibalism** includes pecking at the skin or wound, the bird's or another flock mate's toes. Vent pecking is identified specifically at layers. It is important to note that neither of these problems arises from aggressiveness; they are **behavioural problems**. Various factors can trigger the phenomenon. Farmers aim to mitigate problems endangering animal welfare and well-being for production optimisation and avoid behavioural problems. **In this case, the focus is on prevention.**

Rearing period management is crucial regarding possible feather pecking and cannibalism during the laying period. It is necessary to rear well-developed, stress-tolerant, healthy pullets with sufficient nutritional reserves to prevent this. The aim is that pullets should be well acquainted in the rearing house, so they can easily find and use the scratching area, the perches, feeders and drinkers. Ideally, the laying house should have similar arrangements. The same applies to the lighting programme. Lighting length and intensity, switch on and off time should be harmonised. Quality rearing is of utmost importance for the pullets to become good layers.

The maximum **stocking density** during rearing is 100 birds/m^2 till 10 days of age, 50 birds/m^2 till 34 days and 18 birds/m^2 from 35 days of age. These figures apply to the used floor area. Some breeding companies recommend even stricter regulations. The length and width of the rearing area should be at least 30 cm and its height at least 40 cm, and the

floor slope should not exceed 14%. As for aviary systems, the house should have a maximum of 4 tiers installed, not counting the floor. Free movement of birds between tiers is essential. Tiers should be at least 40 cm apart from each other. The maximum useful area in an aviary house is 36 birds/m^2. Stocking density can have a considerable impact on feather pecking or cannibalism.

The number of birds within the house should not exceed 6,000 pieces. In case of larger stock, section the house with dividers. Place the higher number of birds in the rear of the house and the smaller number close to the entrance to avoid possible crowding because of fright. The best option is if the pullets reared in one house will be transferred without mixing to the layer farm.

Feeders and drinkers should be easily accessible at any time. Minimise feeder and drinker contamination. In a multi-tier system house, install feeders and drinkers on different levels so birds can reach them within 4 m. When housing day-old chicks, place chick-paper on the floor and strew feed on it. It helps feed intake and is effective against pecking. Adjust the height of feeders and drinkers as the birds grow. Feeding space should be 2.5 cm at the trough feeders and 2.0 at the round feeders at 0-5 weeks of age. Later, the space changes to 4.5 and 4.0 accordingly. Compile feed mixtures in 3-4 phases concerning bird age, considering breeding company recommendations. The structure of feed could be coarsely ground or crumbled. To properly develop the bird's digestive system, add 5-6% raw fibre to the pullet feed. Giving alfalfa hay to the flock from the age of week 10 not only engages birds but also has beneficial effect on the digestive system development and functioning. Limescale grit or small stones mixed into the bedding litter has a similar positive outcome.

Drinkers should be easily accessible to every bird. Calculate 1 cm/bird drinking space around a round drinker and 2 nipple drinkers or drinking cups per 10 birds. Add drinkers for every additional 10 chicks.

Install **perches** for day-old chicks to make the birds get used to them as soon as possible. Perch length should enable each bird to sit on them. Calculate 6 cm/bird till 10 weeks of age and at least 10 cm for older birds. Recommended perch length is 15 cm/pullet till the end of the rearing period. Install the perches 17 cm off the wall and leave a 25 cm vertical distance between the perches. If birds can fly onto the perches, leave 40 cm between the perches. If they can jump onto them, leave only 20 cm. Perches should be without sharp edges and made of splinter-free, non-slip material to allow secure grip. Place the bars at different heights, so birds can quickly learn jumping onto them.

In the case of a brand-new poultry house, use the advantages of natural light, which means the window surface should be at least 3% of the floor space. Ensure natural light for birds, excluding light/shadow phenomenon and direct sunlight. The temporal resolution of birds is considerably higher compared to human vision. Low frequency (50 Hz alternating current) fluorescent tubes and energy-saving bulbs are unsuitable for **artificial lighting** of poultry houses as birds perceive them as continuous flickering, acting as a constant source of stress, while human sight would not interpret this rate as intermittent light. Suitable light sources for poultry houses provide warm white light

(colour temperature: 2700-3000 K) with frequencies higher than 2000 Hz. If such light sources are unavailable, traditional light bulbs can also be used. Cost saving LED lights with variable light intensity in a range of 0-30 lux at birds' level, designed for poultry houses, may be the best choice.

Concerning the colour of the different light sources, **only red light has proved to have a calming effect on birds and efficacy against pecking and cannibalism.** The lighting programme must be adjusted to natural day and night light conditions. Birds require at least 8 hours of constant daylight and 8 hours of darkness from 15th day of age. Apply a dimmer that considerably reduces stress by gradually brightening and dimming light within 30-45 minutes. In case of discontinuous lighting of the poultry house, the illumination of the equipment should be switched on first in the morning and switched off last in the evening.

When housing chicks, set the light intensity at 20 lux at bird level in the whole house. Breeding companies could suggest different light intensities but note that the recommended lux value should be similar in the whole area.

Do not increase lighting length until the beginning of the simulation programme (16-17 weeks of age). To reduce bird stress during transfer, synchronise rearing house lighting with the laying farm.

The article to be continued in the next TETRA NEWSLETTER

The article is based on the booklet published by the Niedersächsisches Ministerium für Ernährung, Landwirtschaft und Verbraucherschutz.

The original booklet title is: „Empfehlungen zur Verhinderung von Federpicken und Kannibalismus bei Jung- und Legehennen.

DR. ELŐD BAJCSY | Veterinary Expert on Poultry Medicine

OUR ONE-MINUTE **NEWS**

FROM THE LAST SIX MONTHS

JUNE 5, 2022

TETRA's newest market in Asia: **Thailand**

On 5th June 2022 we successfully delivered TETRA-SL LL parent stocks to our first customer in Thailand, further expanding the range of countries where our breeders are in production.

MAY 19, 2022

This year, **NIPOLI Expo** was held for the fourth time, where Bábolna TETRA Ltd. also participated. We thank our visitors for their interest in our products and the help of the exhibition organizers.

MAY 20, 2022

It was our pleasure holding a symposium on laying hybrids together with AFIS in **Nigeria** in May. Many thanks to the visitors for their interest and for sharing their experiences.

MAY 7, 2022

This year too, Bábolna TETRA Ltd. took over the GRAND PRIZE OF POULTRY BREEDING with pleasure at **XXIX. Animal Husbandry and Agriculture Exhibition in Hódmezővásárhely.**

MARCH 25, 2022




On March 25, we delivered 60,000 laying type parent stock day-old chicks to our two Algerian distributors on **Air Algérie** charter flight from the airport of Sármellék. The housing into the professionally prepared buildings was managed well. Mortality was zero!

FEBRUARY 22, 2022

On February 22, 2022, we held a seminar for **Ghanaian** stakeholders in the showroom of the Hungarian Embassy in Accra, where we presented our laying and dual-purpose hybrids.

JUNE 2, 2022

This year Bábolna TETRA Ltd. participated again with an exhibitor booth at **VIV Europe 2022 in Utrecht.**

LET'S GET TOGETHER

LIVESTOCK PHILIPPINES

24-26 AUGUST 2022

LIVESTOCK PHILIPPINES 2022

PASAY CITY, THE PHILIPPINES

World Trade Center
Metro Manila

POULTRY AFRICA

5-6 OCTOBER 2022

POULTRY AFRICA

KIGALI, RWANDA

Kigali Convention Centre

TANZANIA POULTRY SHOW 2019

14-15 OCTOBER 2022

TANZANIA POULTRY SHOW 2022

DAR ES-SALAAM, TANZANIA

Ubungo Plaza

TETRA
SELECTED FOR QUALITY

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