



**TETRA HB COLOR**  
COLOURED BROILER  
MANAGEMENT GUIDE

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## Introduction

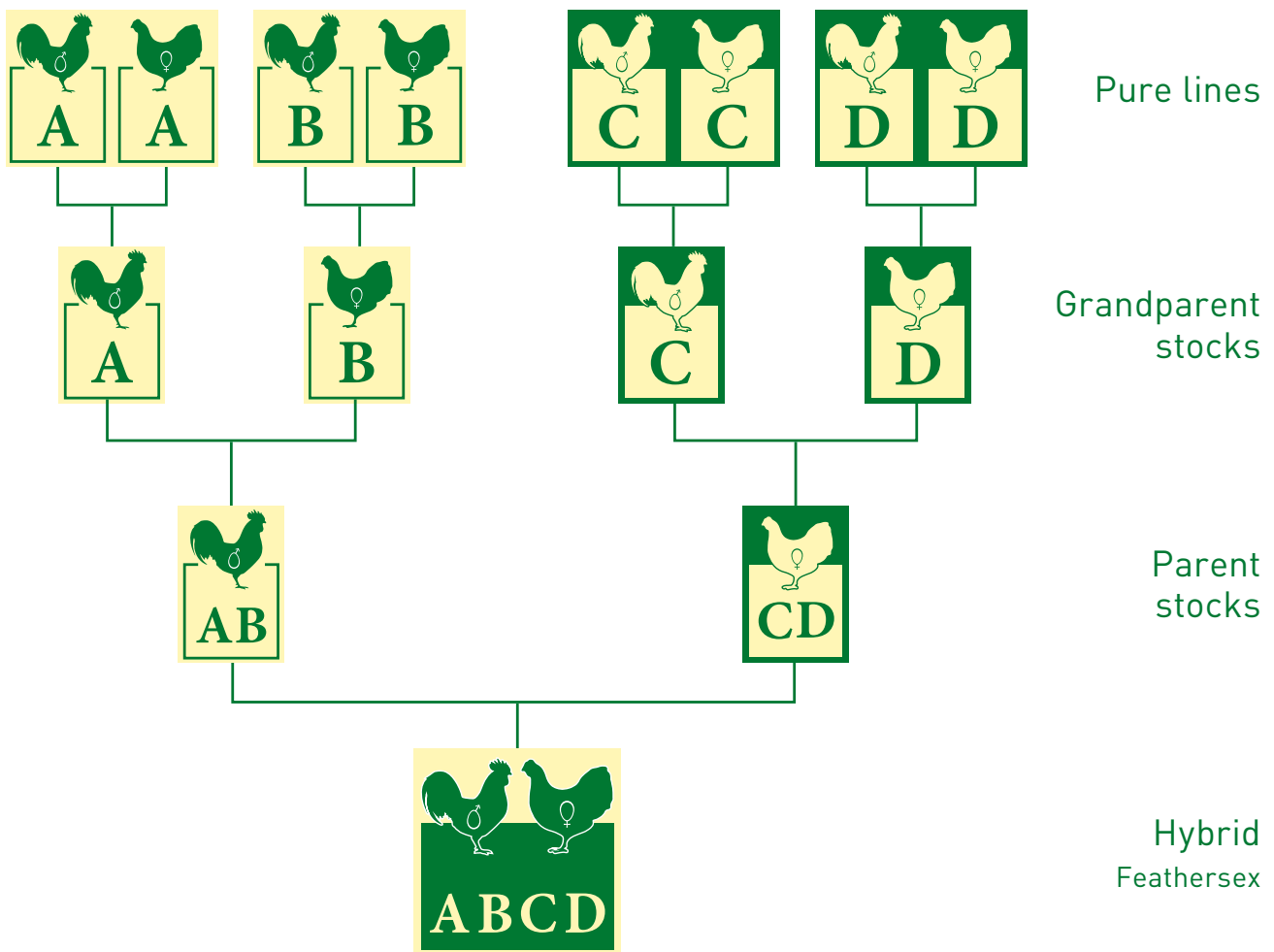
TETRA HB Color Parentis a medium – growing, red feathered farm broiler for standard or free range systems. Parent lines are selected for growing ability, viability and efficient egg production. Furthermore, meat quality and body composition (meat/fat ratio) is closely monitored and considered in its breeding program.

Genetic selection of pure lines is an ongoing task for Bábolna TETRA geneticists to maintain and improve the quality and performance of our Grandparent, Parent and Commercial stocks.

Our manual is a guideline and information source for maximizing your profits and satisfaction with your stocks; however special requests due to climatic or lighting conditions may require assistance from your nearest Bábolna TETRA specialist. We believe that by following this Management Guide and keeping accurate records, the results of your flock will gradually improve year by year.

BÁBOLNA TETRA Ltd.

## Breeding scheme – TETRA HB Color



## General rules for cleaning and disinfecting poultry houses

Isolation of the house is vitally important to reduce the possibility of introducing a disease organism into a clean house environment. People traffic constitutes the largest threat to isolation and introduction of disease causing agents. Ideally, shower facilities and farm clothing are available for all employees and necessary visitors. If this is not possible, visitors should be limited to those that are necessary and they should be required to wear clean coveralls, new plastic or cleaned rubber boots, and hair covering.

- Disinfectant footbaths should be present at the entranceway to each house and should be replenished with fresh disinfectant daily.
- Doors should be kept locked at all times to prevent unwanted, improperly attired visitors from entering. "No Trespassing" signs should be prominently displayed on the doors and

"Bio-security Zone" signs should be displayed at the farm entrance to warn visitors that they are entering a bio-secure area. Remembering that people spread many diseases from farm to farm will help to encourage less people traffic to and from farms.

### Before the arrival of the new flock

- Sanitation should begin with removal of all organic matter from the previous flock. Organic matter includes live and dead chickens, rodents, manure, feathers, etc. Growing birds on built-up litter is not recommended at any time.
- Dry cleaning should be done as soon as possible after the old flock is removed. Down time is very beneficial in allowing pathogens to die naturally. The dry cleaning should include the walls, rafters, ceiling, feed bins and other feed equipment, fans, vents, watering system, cages, etc.
- After dry cleaning has been completed, all surfaces should be washed with high-pressure washing and an approved surfactant containing detergent.
- Following this wash down, apply a sanitizing agent approved for use in poultry houses. The sanitizing agent chosen should be broad spectrum in its activity and used according to manufacturer's directions.
- If allowed, fumigation of the house using an approved fumigant can also be used after returning all equipment to the house.
- Any equipment removed should be cleaned and disinfected prior to replacement prior to chick arrival.
- Rodent control programs should be strictly enforced when the house is cleaned and empty. The use of baits, tracking powders, and any other control method available should be implemented.
- Raise the house temperature to 29-32 °C (85-90 °F) at least 24 hours prior to chick arrival to ensure the equipment is also warm. The desired relative humidity should be greater than 60%. This humidity level should be maintained for at least three weeks.
- Set light clocks to 23 hours day length with a light intensity as high as possible. If shadows are being cast onto any drinkers/nipples, the use of droplights is suggested to eliminate these shadows.
- Trigger nipples to ensure that they are in working order and set at the proper height. Nipples should be at the chick's eye level and bell drinkers should be on the floor. Supplemental drinkers should be used in floor brooding and removed slowly once the chicks are established and are clearly using the main drinking system.



## Brooding period

- For TETRA HB Color commercial stock we recommend to use spot brooding. Heat is provided by conventional canopy brooders. Rearing space can be divided half by a curtain for saving on space and energy costs.

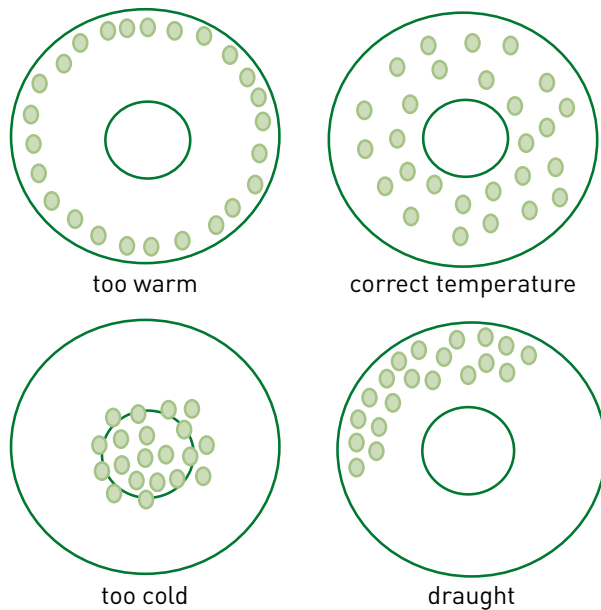
**1. Table: Temperature requirements for brooding period**

Age (day)	Brooding temperature (°C)	
	Under the brooder	House
Day old	32	25
3	31	24
6	30	23
9	28	23
12	27	23
15	26	22
20	25	22
25	24	22
30	23	22
35	21	21

- The behavior of the chickens is the best indicator of the temperature especially during night. By following some simple rules, we can ensure the conformity of the chicks during this fragile period.
- If the birds are calm and quiet and they spread equally in the house it means they feel comfortable.

- Always measure the temperature at the bird's level.
- Besides the temperature it is essential to maintain proper humidity as well especially if brooding in cages. Relative humidity has to be kept between 40-60% by evaporating water (floor brooding) or watering the walks (cage brooding) if necessary.

**1. Figure: Indication of chick's well-being during brooding**



## Health management

### Vaccination program

- Always consult with your local vet as rules are changing according to the country's own regulation.

**2. Table: Example of a vaccination program for TETRA HB Color**

Age (days)	Vaccination
Day old (hatchery)	Newcastle disease (IB-spray)
12-14	Gumboro
21	Newcastle disease (IB)

## HUSBANDRY - Growth management

### TARGETS:

#### Flock uniformity

Ensure that targets stated in the technology are reached

Keep records of mortality, feed intake, FCR, water consumption and weekly bodyweight

- We recommend keeping males and females separately in order to implement different feeding program. Sexual dimorphism cause different target weight, therefore, uniformity within sexed flocks is easier to maintain.
- TETRA HB Color day old chicks are feather-sexable, so genders can be placed separately or as-hatched.
- Uniformity and regular weighing is foremost important. The growth of a flock is normal and the birds can be considered equal if CV is below 10%.

$$CV\% = \left( \frac{\text{standard deviation}}{\text{average bodyweight}} \right) \times 100$$

3. Table: Standards for TETRA HB Color commercial (49 and 70 days rearing)

Density	Bird/m <sup>2</sup>
0-49 days female	19 pcs
0-49 days male	15 pcs
0-70 days female	13 pcs
0-70 days male	10 pcs
Feeder	Birds/tray
0-49 days	60
0-70 days	40
Nipple drinkers	Birds/nipple
0-49 days	12
0-70 days	9

### Feeding space

Standard should be regarded as the minimum requirements for satisfactory performance.

### Drinking Space

- Water is an essential nutrient by itself. It can also influence all other nutrient intakes by controlling feed intake. For example, a restriction on water intake will cause a voluntary reduction in feed intake.

- To ensure that all birds find water when initially housed there should be a minimum light intensity of 20 lux at the bird's level. This is especially important at day-old and where change of drinking system occurs when moving birds into the laying house.

### Beak Trimming

Beak trimming need not be carried out in TETRA HB Color commercial flocks.





## Body weight and nutrition

4. Table: Nutritional recommendation for TETRA HB COLOR commercial stock

Component		Starter	Grower	Finisher
		0-27 days	28-55 days	55-70 days
Crude protein	%	21	18.5	17.5
ME	MJ/kg	12.2	12.5	11.7
Crude fat	%	3.55	4.47	4.86
Fibers	%	3.81	3.76	3.85
Lysine	%	1.19	1.01	0.96
Methionine	%	0.52	0.47	0.42
Calcium	%	1.04	0.91	0.99
Phosphorus	%	0.77	0.74	0.64
Available phosphorus	%	0.45	0.44	0.45
Sodium	%	0.17	0.15	0.18
Vitamin A	NE/kg	11 000	9 600	10 000
Vitamin D <sub>3</sub>	NE/kg	4 000	3 500	3 000
Vitamin E	mg/kg	35	30.6	21

- Essentially **Starter** rations aim to produce a good skeleton, good organ development and help promote an active immune system. This is achieved by feeding the starter ad libitum during the first week with the correct balance and absolute levels of essential amino acids, for growth, development of the immune system, feathering and skin condition.
- Colored broilers should not be forced to rapid growth. Feed prepared for commercial broilers should be avoided due to its high protein and energy level.
- Cheaper feed material such as DDGS, maize may be used in manufacturing feed.
- Clean water should always be available and checked regularly.
- If genders raised separately, pay attention to the flock density. Daily feed amount need to be adjusted to the targets weights. Some feed restriction may be required in males to avoid overweighting.
- Males reach usual market weight (2.2-2.5 kg), 2 weeks earlier than females.

5. Table: Weight development and feed conversion of TETRA HB COLOR Commercial (semi-intensive system)

Age (weeks)	Females	Males	As-hatched	FCR
1	140	150	145	0.8
2	300	320	310	1.35
3	570	620	595	1.84
4	830	950	890	2.15
5	1120	1300	1210	2.25
6	1390	1660	1525	2.47
7	1689	2050	1870	2.65
8	1970	2 450	2210	2.76
9	2270	2 870	2570	2.84
10	2504	3 210	2857	2.95

### Lighting program

- Lighting program is only effective if direct sunlight is blocked out of the building.
- Light stimulation is not necessary when birds are transferred to an open sided or free range environment.

**6. Table: Lighting requirements for TETRA HB Color commercial (closed building)**

Age (days)	Length of lighting (hours)	Light intensity (Lux)
1	24	20
2-56	23	gradually decrease
57-70	16	8

- Bright light is necessary for the chicks to feed and drink properly. Therefore, light intensity should be monitored, especially in the first 2-3 weeks.

### Housing

There are several ways of keeping your TETRA HB Color commercial flock.

- Intensive
  - Semi-intensive
  - Free range/organic
- } Alternative methods

Intensive system is not recommended for colored broilers as we are aiming for slower growth, which result in tastier and firmer meat. Rapid growth and minimal movement will cause health problems and increased fat deposition, especially in females.

If we intended to grow our TETRA HB Color flock in alternative management, it is recommended to keep young chicks inside the building during the first three weeks of the brooding period. This time is needed for the birds to develop their immune system, skeleton and feathering. From the third week onwards chicks can have excess to free range, but feed need to remain inside the building. It is necessary in order to preserve feed quality and provide shelter and security for the flock.

Access to pasture area also affects meat quality and the amount of abdominal fat. Moreover, birds can gather about 20-25% of their daily feed requirement outside (grass, insects, etc.).

### Hot climate management

In the open house system of poultry keeping practiced in tropical climates it is not always possible for the Bábolna TETRA HB Color stock to fully express its genetic potential. However, there are various modifications to the management recommendations for controlled environmental conditions which can be adopted to minimize the loss of performance.

The main problems encountered when keeping birds at high temperatures are the followings:

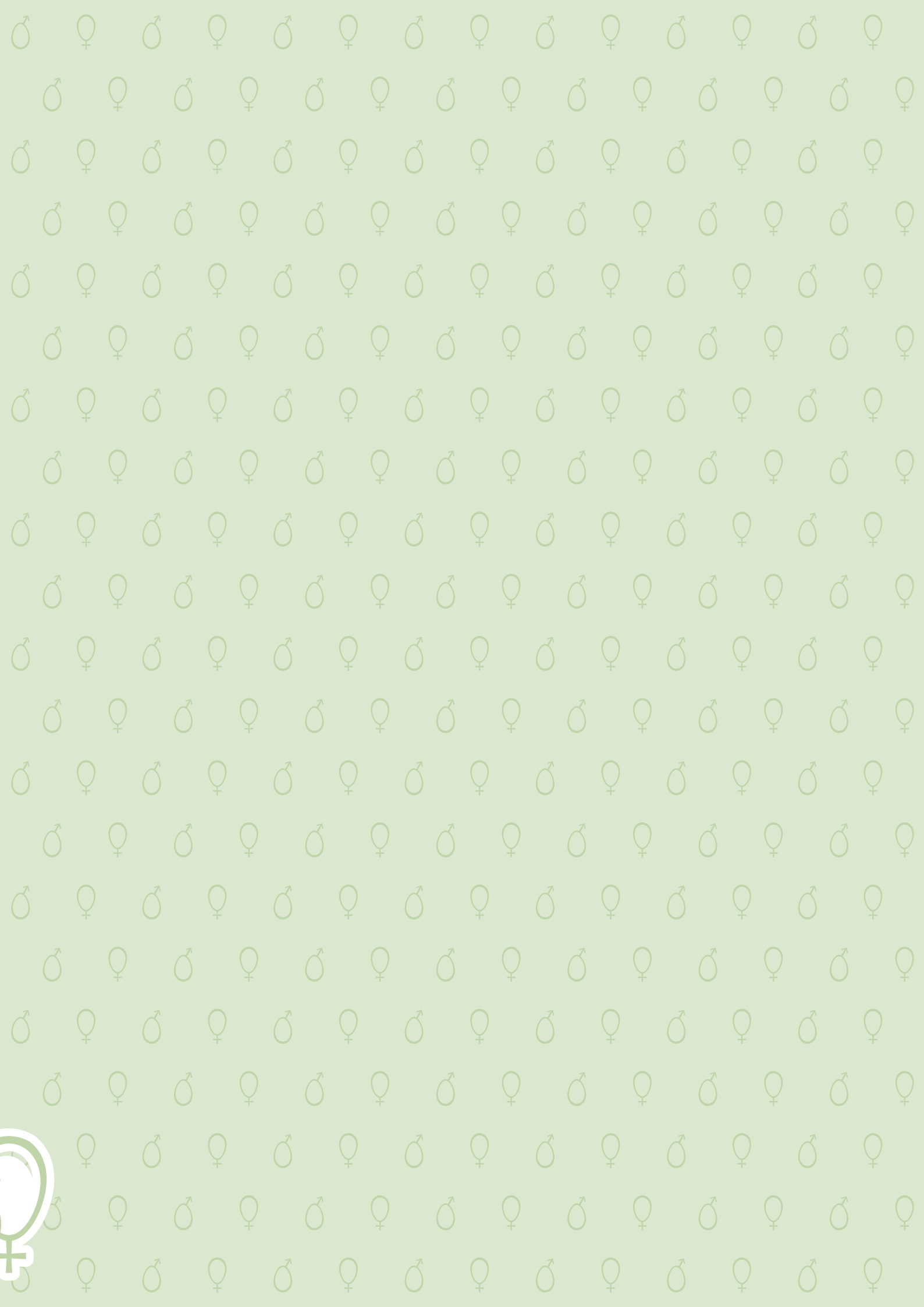
- Difficulties of getting enough nutrients into the bird
- Change in method of heat loss used by the bird to maintain its body temperature after panting begins at about 28 °C (82 °F).
- Birds reduce their intake of energy as ambient temperatures rise because of the lower demand for heat production at higher temperatures.
- There are two approaches to minimizing performance losses;
- Reducing the temperature of the bird’s micro-climate,
- Maximizing nutrient intake.

### Housing (Hot climate)

- Use roofing materials which have good insulation properties and reflect solar radiation. Natural materials like palm thatch usefully reduce penetration of solar heat.
- Roofs should be as high as possible to minimize the temperature at the bird’s level and maximize the natural air flow to the ridge.
- Vegetation and trees may be planted around the buildings to provide shade and reduce the amount of sunlight reflected from the ground.

It is important to note that in some countries welfare regulations may stipulate stocking rates, feeding space and drinking space, which are different to those given in this manual. Regulations may also prohibit or restrict certain husbandry practices, such as beak trimming, toe clipping and dubbing.







TETRA HB COLOR 2014

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