

*Because we care for your birds*

# Preparation of the breeding season

*By Dr. Peter Coutteel*



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# Preparation of the breeding season

## Chapter 1: Hidden diseases in healthy birds

As a bird veterinarian, I would like to demonstrate the importance of good preparation of the breeding season and highlight several aspects of this to enjoy our hobby with enthusiasm.

We can say that most breeders have birds that look perfectly healthy. Still, they can be carriers of some disease, e.g. atoxoplasmosis, circovirus, polyomavirus, worms. Even a little coccidiosis or trichomonas can sometimes be present without any apparent symptoms.

Birds become more susceptible to diseases; the further we go away from the original species by allowing or looking for specific mutations (colour, posture, ...).

We all realise that life and survival in nature should be in harmony with all kinds of attackers from the environment and that the immune system ensures that this life is possible.

Breeding anno 2021 requires knowledge of the genetic background and possible diseases because of this increased sensitivity. Therefore, we must focus more on hygiene, good nutrition without deficiencies, medical supervision, and some products to help.



*Physical exam by opening the wing and blowing the belly*

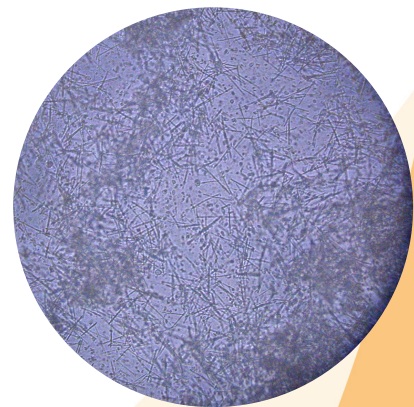


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## Addressing hidden disease in apparently healthy birds

The check-up of breeding birds is done 6 to 8 weeks before the start of the breeding. For this, it is essential to use your bookkeeping unless you have a good memory.

- Do a complete physical examination yourself by first observing the future breeding birds from a distance and then taking each individually in your hand.
- Open the wing and look for parasites.
- Belly blowing to assess condition: the presence of fat, the quantity of muscle. Red bowel loops are not regular and indicate an underlying problem.
- Look at the faeces: colour, quantity, digestion, urates.
- Make an appointment with a specialised veterinarian with a couple of representative birds placed in a cage with a smooth paper at the bottom. In this way, it is easy to take a faecal sample for microscopical evaluation. It's crucial to detect oocysts (coccidiosis), worm eggs (roundworm, hairworm, tapeworm, windpipe worm), flagellates and megabacteria.
- With a cotton swab, soaked in warm physiological water, the vet can take another sample from the throat/crop to detect trichomonas' possible presence (see our previous article available on our website).



*Microscopic examination of a fresh sample. Worm eggs. Oocysts from coccidiosis.*



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Only when certain diseases are diagnosed, a specific treatment is done. A golden rule is always to evaluate the problems of the past breeding season. It can be different for any breeder, but we can learn from it and prepare ourselves better.

Sometimes we have to do a general treatment with an effective broad-spectrum (**T-PLUS**) at least one month before the breeding to tackle some hidden diseases from the previous year.

## What about preventative treatments?

- Preventive treatment is often advised for canaries and European finches to control coccidiosis and atoxoplasmosis. It consists of the use of coccidiosis drugs such as **PANTACOX** and/or coccidiostats (Sulfonamides, **ESB PLUS**).
- With many tropical birds (Zebra finches, Australian and African finches, ...) we often have to deal with carriers of flagellates and campylobacter bacteria, and preventive treatment (**RONELLA + T-PLUS**) is instituted for the so-called "Bengalese Finches Disease". Otherwise, we risk getting reasonable losses in young birds, our new generation.
- For parakeets and parrots, we are more likely to consider deworming before starting the breeding season.



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## Chapter 2: Looking for the perfect Breeding Condition

The transition from resting to breeding period is vital for building up the right reserves in a bird. Good nutrition is essential but also knowledge of the light and manipulating daylight length can be necessary for "artificial breeding".

### **Nutrition**

During the moulting and resting phase in winter, birds eat differently and should do so in a shorter period. The provided seed mix, called "a moulting mixture" is more one-sided than a breeding mixture. The administration of some extras and soft food is also limited in quantity and sometimes only once a week.

We now know that all seed mixtures are deficient in several essential nutrients, but the birds do not need this during the resting phase. The eggfood, on the other hand, contains some high-quality proteins that do have the essential amino acids.



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A possible way to achieve a perfect breeding condition and still provide the necessary vitamins, amino acids and trace elements in this transitional period is to administer these supplements weekly in the drinking water.

- **VIGO-CARNITINE on Friday:**

general condition, tackle fattening (see later).

**HEPATO-CHOL** on Saturday: contains many vitamins, amino acids and herbs and improves liver function.

- **VITAMIN KADRIE** on Sunday:

necessary for adequate fertilisation and partly replacing the natural sunlight that usually ensures a build-up of Vit D3 via the UV rays.



**Golden TRIO in the breeding preparation**



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## **Calcium, minerals and oligo-elements**

Also provide a good source of absorbable calcium, minerals and all kinds of trace elements. We used to scatter shell sand at the bottom of the cage, and we no longer do that due to hygiene. Nowadays, we provide everything in separate feeding bowls. In this way, the birds have to search themselves to find their needs in the grit, oyster shell, cuttlefish shell and stomach gravel offered.

There are also mineral mixes, such as **Vit-AZ-Min**, which contain a great source of calcium & trace elements but can only be provided via the softfood as they are not soluble in water.

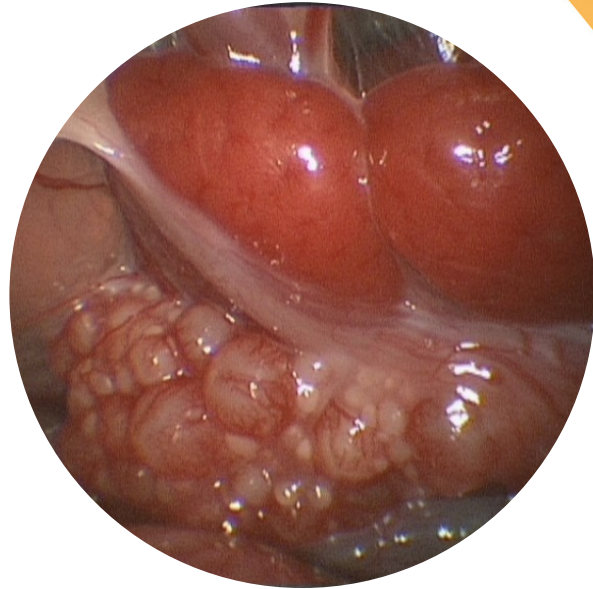
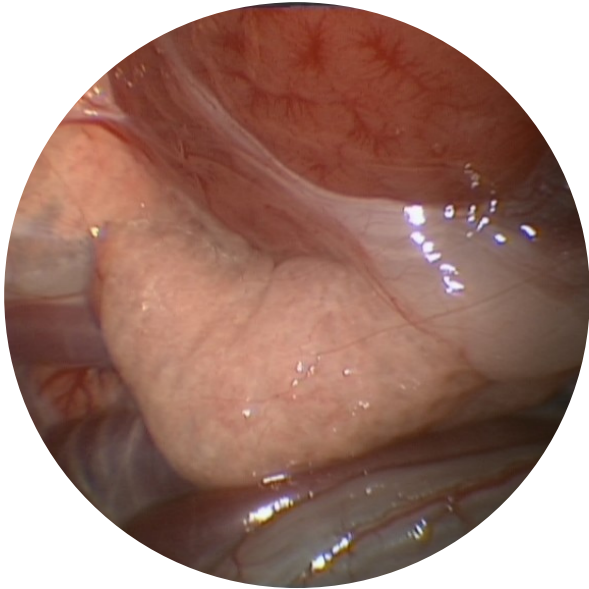
## **Daylight length**

Birds' sexual organs become very small in size during the resting period and produce almost no sex hormones. When the daylight length increases, the more significant activity will occur. Many stimuli enter the brain that gently activates sexual hormones.

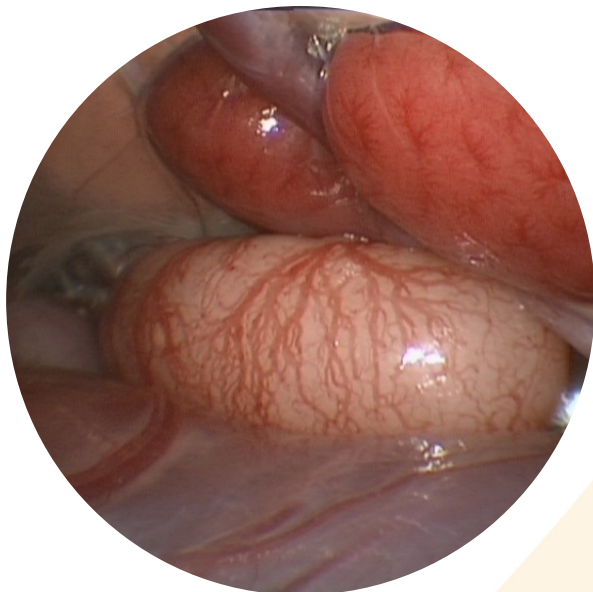
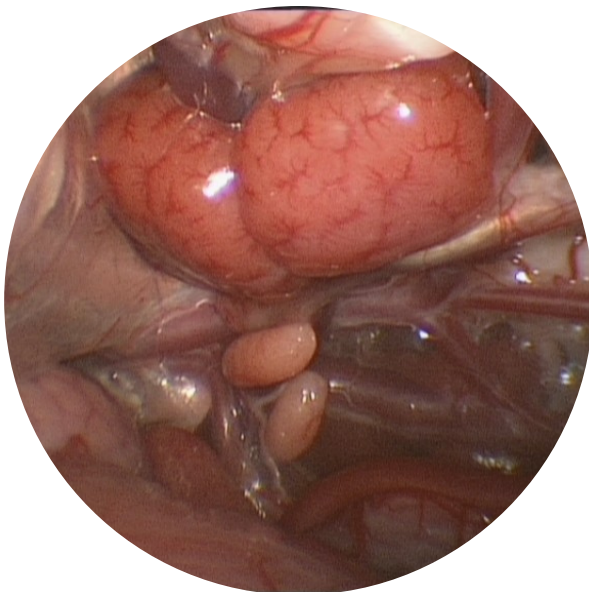
By extending the daylight length, hormonal releasing factors will stimulate the ovary's development in the female with various follicles, the future eggs. In the man, the testicles will grow in volume, and the production of testosterone will start. In this way, fertile semen enters the vas deferens.



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*FEMALE bird: the triangular organ in the centre is the ovary. It contains thousands of follicles ready to develop. After possible fertilisation, the egg further develops in the uterus tube before laying.*



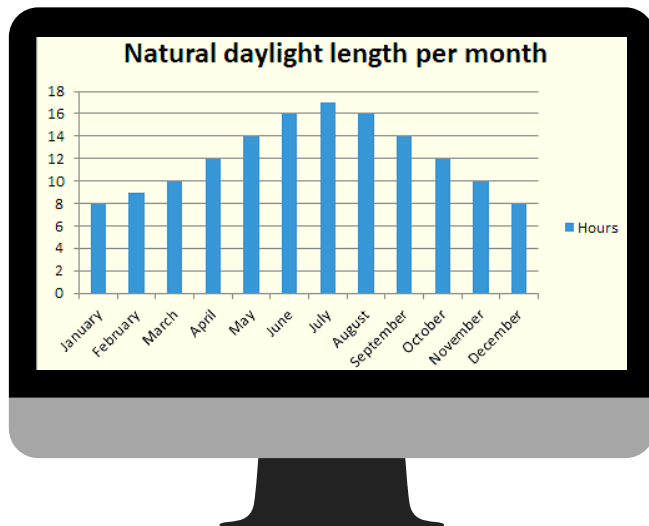
*In MALE birds, the genitals are stimulated at a specific time and start growing enormously in volume. At that moment the production of sperm begins to accumulate in the vas deferens.*





## Chapter 3: Manipulating the daylight

In a manipulated breeding, the light's extension is sometimes controlled with a timer and dimmer to offer more light day by day. In this way, the daylight length can be built up more quickly to the desired 14 to 15 hours of light.



*Natural daylight length in Belgium and the Netherlands. Manipulation and control of the daylight length using a dimmer.*

Some breeders prefer to provide the needed daylight length suddenly. Be careful because in many cases the female bird is responding quicker than the male and starts already laying eggs before the male has done a copulation with fertile sperm.



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## **Proper light in the breeding room**

When using fluorescent tube lamps, it is best to choose daylight lamps with a UV spectrum (Philips TLD 965, Arcadia bird lamp), which give an average of 5.500 Kelvin light temperature. To avoid flickering of these lamps, integrate a High-Frequency ballast. It is a good idea to replace the lamps annually as the buffer gases' output is limited.

The new trend is the use of LED lamps, sometimes as general lighting, sometimes as strips individually in the breeding cages. These lamps have a much longer lifespan, consume much less energy and do not flicker. However, one must pay attention to strength!! Many cages are too brightly lit, which can become a particular stress factor.



*Control beak and nails*



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## Fertilisation

The first round is crucial because our breeding birds have been able to build up a significant reserve. Egg production in birds is very intensive and takes place in only one day. A new egg can be laid every 24 hours, and it must contain everything for the germ to grow into a full new life.

In addition to a complete diet and a correct light regime, some other factors are essential to achieve adequate fertilisation:

- The couple must accept each other.
- Minimum age is required to be fertile.
- In old birds, there are often scales on the leg that can bother their movement. Use an ointment, such as **BIRD PEDICURE**, and give a gentle massage a few times so that these scales dissolve.
- Avoid loose perches and nails that are too long.
- In heavily feathered birds, trimming of the feathers around the eyes and vent is sometimes recommended.
- If individual breeding birds are too fat, mating will not go well because the male "tap" cannot find its correct position. One can use **VIGO-CARNITINE** to counteract fattening and thus increase the chance of conception.



*Male birds that are too fat have more difficulties to fertilise.  
Old birds often have pronounced scales on the legs.*



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## Chapter 4: Breeding room and special needs

Before introducing birds into the breeding cages, thoroughly brush and disinfect everything with an effective agent that is non-toxic, non-corrosive and quite virus-killing. Time to fumigate, a dash of Dettol and bleach are over; nowadays, there are better means to disinfect such as Virkon S or F10.

Only after disinfection, the entire environment can be treated with a spray against annoying parasites, such as the red mite. Also, all perches, nests and nesting material can be treated separately before being used.

During the breeding season, the control for red mite infestation can even occur via drinking water (see later article).

### Special needs during breeding

While raising the young birds, the breeding birds consume quite a lot of soft food to offer it immediately to their youngsters. Fast-growing birds, type canaries and heavily feathered birds (budgerigars) require a perfect diet with enough biologically high-quality protein to cover the high needs.

A good protein supplement can improve the growth of youngsters and feather development. The essential amino acids methionine, lysine and choline (can be found in **AMINO-FORT**) are very important and can be additionally supplied daily through the soft food.



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## Control of diseases during the breeding

If all goes well, no medicines should be used during breeding, and we focus on good care and hygiene.

*Black spot*



*Dirty nest*



Breeders who have had severe losses in the past year due to a particular disease, such as atoxoplasmosis, should arm themselves against it and offer protection so the next generation is not affected by it. This control was previously done using ESB3. Today, there are good results with **GROG New** based on diclazuril, which is a coccidiosis killer.



*Control for atoxoplasmosis & black spot*



*Control for diarrhea*





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And despite everything, inexplicably, something can still pop up, no matter how well we have done our best. Compare it a bit with people who suddenly develop a cold sore, which is an expression of the herpes virus, and this because of "a situation".

We call this situation "a stress factor" and interpret it broadly because it is not always clear. Bookkeeping, analysis, good observation, correct interpretation by the bird veterinarian and quick reaction are the message.

**Good Luck in 2021 !!**

DR. PETER COUTTEEL

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