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Organic selenium in NutriBird

Dr. G. Werquin

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Selenium deficiencies are very common in birds. The low content in seeds contributes to a lot of birds absorbing too little selenium. The cause of the low selenium content in vegetable products is because the soil in many regions has a very low level of selenium.

Selenium must consequently be added to the bird's ration via supplements. Of course you can also use a complete feed in the form of pellets in which sufficient selenium has been added. This is traditionally done in the form of sodium selenite. However in this inorganic form selenium is only absorbed to a limited extent and barely stored in the body. Excess is excreted via the liver and urine.

The use of selenium in its organic form has recently also been authorised. This is selenium as it occurs in nature. This form is absorbed and stored as a reserve much better in birds. In addition the bird does pass this form of selenium on through the egg, so that newly hatched chicks can start with a good basic level of selenium.

What is selenium's role in the diet?

Selenium is an essential mineral that has different functions in the animal such as supporting the condition and immunity, reducing stress, better fertility and healthier plumage. Selenium plays an important role as an anti-stress factor and as an antioxidant in the body. Built into the enzyme glutathione peroxidase it increases the resistance.



Prestige

OROPHARMA

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What is organic selenium?

In organic selenium the mineral is bound in proteins, primarily in the amino acids methionine and cysteine. In Se-methionine and Se-cysteine the sulphur molecule is replaced by a selenium molecule. This is the natural form of selenium. Organic selenium has a higher biological availability and a much lower toxicity.

Organic selenium: effect in birds

Caged and aviary birds are often housed in less than optimal circumstances that cause stress factors and may often lead to an increased production of free radicals. This results in increased health problems and poorer breeding results.

• *Improved performance*

Scientific studies have shown stronger growth performance, higher food conversion, more skin elasticity and better plumage. In relation to resistance to disease a scientific study

(Venne, 2003) even reported increased maternal immunity transfer (= transfer of antibodies from the mother to the young). Chicks from older animals given a ration enriched with organic

selenium had up to 25% more antibodies. This resulted in better protection of the chicks and a significantly higher survival rate in the first 10 days of life.

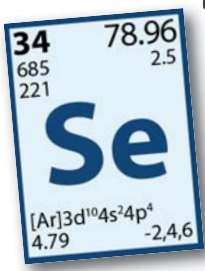
• *Better fertility*

Scientific research has also shown that the addition of organic selenium improves fertility, both in male and female birds. An improvement of the quality of the egg and the hatching percentages were also reported. Organic selenium ensures a greater rise in the selenium content in the egg, resulting in better antioxidant status in the chick.

• *Safer*

Supplementing high levels of selenium in the form of sodium selenite can be toxic. Organic selenium however is not only much more available, it is also much safer. Even at high dosages, organic selenium is not toxic at all.

Due to the benefits related to the use of organic selenium, all NutriBird-products are now enriched with an extremely available form of the essential trace element. An important added asset that undoubtedly benefits the condition and breeding results for your birds.



Probiotics and intestinal conditioners

Dr. K. Jacobs

The body's digestion is essential for absorbing all the necessary nutritional substances and nutrients from the diet. A bird has a fast metabolism which means that the food absorbed is digested very quickly and converted into building blocks and energy. A fruit-eating bird can digest berries in less than 30 minutes and a seed-eating bird digests seeds in less than 3 hours.

A disruption to this digestion caused by stress, illness, transport, ... quickly has an affect on the animal's health. To ensure the health of the bird, we must ensure that the complete digestive system, from crop to intestine, proceeds evenly.

The digestive system of the bird

Food is absorbed and taken with saliva to the bird's crop. The food is made softer in the crop through the influence of enzymes and fluid from the saliva. The food is taken from there to the proventriculus where it is mixed with digestive enzymes. The food is then ground finely in the gizzard and transported to the small intestine, where the food is digested further. Caeca (appendix) is located in the large intestine. These are minor intussusceptions that contain a large quantity of beneficial bacteria necessary for the efficient digestion of the food.

All the bacteria present in the digestive system (from crop to cloaca) are called intestinal flora. In healthy birds with balanced intestinal flora the good bacteria prevail over the pathogenic bacteria. However if the

pathogenic bacteria expand and crowd out the beneficial bacteria, the bird becomes ill. The administration of antibiotics also kills the good bacteria along with the pathogenic bacteria. Probiotics and intestinal conditioners are used today to guarantee a new supply and quick growth of beneficial bacteria.

Probiotics and enzymes

Probiotics are beneficial bacteria present in the bird's intestine. When we administer probiotics (living bacteria), the health promoting bacteria themselves are applied. High concentrations of living bacteria are needed to achieve correct functioning of the intestines. Probi-zyme (Oropharma) is one of the few preparations in which the concentrations of lactic acid forming bacteria are guaranteed. In addition to probiotics, Probi-zyme also contains digestive enzymes. Digestive enzymes are usually present in the intestinal juices. They provide the first step in breaking down proteins and carbohydrates which makes these digestible. Providing supplements of enzymes promotes the digestion of the food, which is very beneficial in the event of intestinal disorders.

Intestinal conditioners

Intestinal conditioners are natural products that create an optimal environment for good bacteria. An important part of the function of intestinal

conditioners may be attributed to the soluble fibres present. These mucous substances create a type of gel in the intestine, which protects the intestinal wall and normalises the intestinal function. The excretions become firmer and the loss of fluids via the dung is consequently limited.

The best intestinal conditioners (e.g. Oro-digest) also contain prebiotics, specific fructooligosaccharides (FOS) that serve as nutrients for the good bacteria. In addition these FOS reduce the attachment of the pathogenic bacteria to the intestinal wall. As a result the beneficial bacteria will suppress the pathogenic bacteria and in this way the bird will develop healthy intestinal flora again.

In short, intestinal conditioners repair the natural balance in the intestine, limit the loss of fluid and improve the consistency of the droppings. Amongst others this ensures more hygienic, dryer nests during the breeding season. This also prevents the cloaca feathers sticking together.

How can one achieve an optimal effect?

Through their synergic function the simultaneous administration of probiotics and intestinal conditions will ensure the best results. In this way both the beneficial bacteria (probiotics) and their diet (prebiotics) are strengthened in an optimal environment (soluble fibres). This guarantees healthy intestinal flora and optimal digestion.

By the end of the year all Orlux dietary supplements will be classified under the Oropharma label. It is Versele-Laga's strategic choice to gather all health- and care products for ornamental birds, pigeons, dogs, cats and small animals under one single brand name: Oropharma.

Two references however will receive a new product name:

- Bio-Bad will be renamed into Oro-Bath.
- Bio-Digest will be renamed into Oro-Digest.

For you, breeders or fanciers, nothing will change: as always you'll be able to rely on your trusted high-quality products.



When to use it?

Intestinal conditioners and/or probiotics may in the first instance be used as supporting treatment in cases of intestinal disorders, in addition to the traditional medicines (antibiotics, coccidiostatics or worming medicines) against the illness itself. In this way the recovery of the intestinal flora is accelerated and the length of the illness shortened. The preventive use of intestinal conditioners and probiotics increases the resistance against intestinal disorders and is, for that reason, particularly recommended in periods of "increased risk":

- During the breeding from hatching to the chicks eating independently:
The nests will stay dryer and more hygienic, which results in a lower likelihood of infections like the sweating disease.
- Before shows or after exposure to unusually stressful situations.
- The typical watery droppings of fruit-eaters are bound more through the use of intestinal conditioners.

Expansion of the Pet Research Center

Dr. P. Ghysels



Over the course of March 2008 a completely new building was commissioned in the Versele-Laga Pet Research Center. Over 500 animals found a new home there. There are separate departments for birds, rodents and cats. The various compartments are provided with individual electronic climate and light regulation. These can be adjusted to the types of animal and the seasons, so that each species of animal can

be kept under the most ideal circumstances.

Two full-time animal carers are responsible for feeding the animals and the maintenance of the new complex. Our specialised vets ensure the daily veterinary inspection. In order to run the feed tests in practical conditions, all the species of animals are bred under the supervision of a few experienced breeders.

At the request of our nutritionists, new comparative taste tests begin here each week. The data and experiences from these tests are used for the continuous improvement of the Versele-Laga quality feeds, such as NutriBird, Orlux and Prestige.



Raymond Aerts, Begijnendijk (B)

Attracting attention



Frans Verschueren, Booischoot (B)

Breeder of:

Colour canaries: red isabel, red agate

Amazons, Aras, Keas

Awards:

World Championship: several times gold, silver, bronze
COM-show VvNK Mechelen 2007:
5 x gold, 3 x silver, 3 x bronze

Experience:

Animal keeper at Planckendael Zoo
Numerous chicks of diverse parrot species

His favourites:

- Prestige Premium mixtures seed
- Orlux Eggfood dry Canaries
- Orlux Premium Health Line

- Prestige Premium parrot mixtures
- Orlux Eggfood dry Parrots