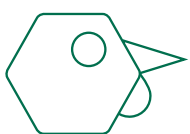


# B.I.O.ZINK SL

POULTRY



CLEAR RESISTANCE WITH BALANCED  
ADDITIVES



 **Biochem**  
Feed Safety for Food Safety®

# B.I.O.ZINK SL

## SUPPORTING THE IMMUNE RESPONSE OF YOUR ANIMALS

### Challenges in poultry

Stress can be caused by a number of reasons, for example high performance or a change in feed formulation. In addition malnutrition, molting, infections, vaccinations or handling can cause elevated stress levels. Any of these factors can lead to reduced feed intake, clinical symptoms, reduced performance and ultimately to economical damage.

While some of these factors cannot be influenced, others can in part be mildened by appropriate management. In times of foreseeable stress like vaccinations or change in feed, the administration of **B.I.O.Zink SL** two to three days prior may help to keep your flock more stable. We would like to support your animal health management by providing a watersoluble supplement which aims at strengthening the animals' immune system and preventing dehydration.



Immune deficiencies cause severe financial losses in animal production due to reduced performance and increased morbidity and mortality.

### Application range

Indication	Action	Support with
Vaccination	Strengthening immune response	Zinc, manganese, copper, vitamins of B-complex
Poor feathering and cannibalism	Support feather growth	Zinc
Intestinal disorders	Stimulating gut health and hydration	Zinc, betaine
Foot pad Dermatitis	Decrease wet feces and promote wound healing	Zinc, vitamins of B-complex
Feed change	Stimulation of digestion	B-complex, trace elements

**B.I.O.Zink SL** REDUCES THE SYMPTOMS OF VACCINATION STRESS BY SUPPORTING THE IMMUNE SYSTEM.

## Vaccination in poultry and consequences

Our modern-day, industrial farming helps to ensure the nutrition of billions of people worldwide. With increasing herd sizes and animal density, infection prevention is crucial. One important tool of prevention is vaccination, but there are several factors to consider.

### 🔗 Multiple diseases = multiple vaccines

No other livestock species has to face as many possible vaccinations as poultry. There are more than 20 diseases against which a vaccination is possible. The number of vaccinations depends on the production type (i.e. breeder, layers or broilers), the local conditions and challenges.

### 🔗 Handling

In case of parenteral application of vaccine, such as injection or eye drops, the handling of the animals and application of vaccine causes additional stress.

## Side effects

Vaccinations activate the immune system to different extents. This causes different side effects:

Reduced weight gain

Reduced egg production

Reduced feed intake

Diarrhea

Fever

## Profitability

It is crucial to prevent profit loss during such critical periods. The well-balanced minerals and vitamins in **B.I.O.Zink SL** help to alleviate negative side effects by nourishing the immune system. Thus, **B.I.O.Zink SL** ensures profitability.

**B.I.O.Zink SL** PROVIDES IMPORTANT TRACE MINERALS AND VITAMINS NEEDED BY THE IMMUNE SYSTEM.



Vaccinations play a key role in preventing infectious diseases.

# B.I.O.ZINK SL

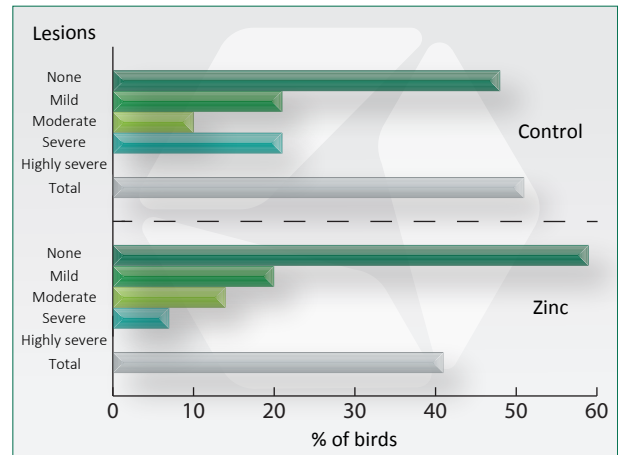
## OUR SOLUTION TO HEALTHY SKIN

### Foot pad dermatitis and skin health

Foot pad dermatitis (FPD) is an inflammation of the foot pads causing pain and hence leading to a drop in performance and affecting carcass quality. FPD occurs in commercial poultry stocks worldwide and can be caused by a number of reasons. In recent years, chicken paws have become the third most important part of the chicken and prices have escalated. A good flock management is crucial for eliminating the causes of FPD. **B.I.O.Zink SL** can be a useful tool to promote good foot health as its components are aimed at supporting the immune system, stimulating cell growth and supporting the connective tissue.

On the other hand **B.I.O.Zink SL** also contains Betaine, which is known to improve litter quality. Its osmoregulative effects stabilize the function of the gut, thus preventing diarrhea and therefore a high amount of moisture in the litter.

It has been shown in a study conducted on broilers that the supplementation of organically bound Zn, such as is contained in **B.I.O.Zink SL**, to a control diet (Mn 65 ppm, Fe 55 ppm, Cu 6 ppm, Zn 55 ppm) can clearly reduce the number of severe and total lesions (Figure 1).



**Figure 1:** The supplementation of organically bound Zn (+ 40 ppm) to a control diet (Mn 65 ppm; Fe 55 ppm; Cu 6 ppm; Zn 55 ppm) reduced the number of severe and total lesions.

In this trial, the total number of lesions was reduced by a relative amount of 20%.

Furthermore, a healthy skin and an adequate supply of trace minerals and vitamins will support your animals during molting period.



Foot pad dermatitis in poultry is a serious disease which affects not only animal welfare but also the economic aspects of your herd.

HEALTHY FOOT PADS ARE THE KEY FOR UTILIZING THE FULL ECONOMIC POTENTIAL OF YOUR HERD.

# B.I.O.ZINK SL

## OUR CONTRIBUTION TO YOUR VACCINATION SUCCESS

### Effects of B.I.O.Zink SL on broiler performance

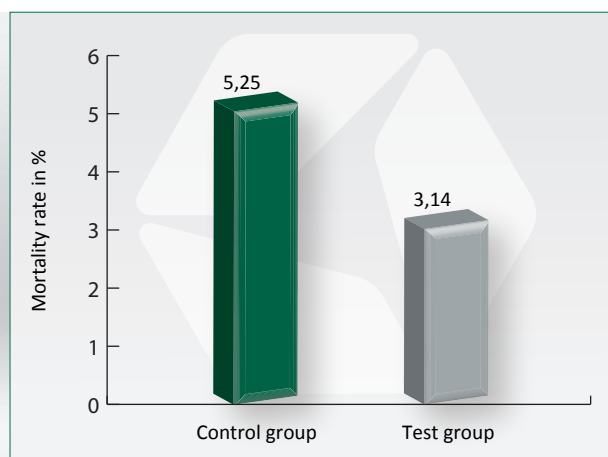
Vaccination is important for keeping the flock healthy but means stress for their immune system at the same time. **B.I.O.Zink SL** contains essential vitamins and trace elements in organically bound form in combination with betaine, supporting the immunity and mucosal integrity of the bird. The present trial examined the effects of **B.I.O.Zink SL** on performance and profitability on a commercial broiler farm.

### Trial design

Two houses with broilers were included in the trial. Both houses were treated and vaccinated the same way (Table 1). Due to sickness, the control group had to be treated with an antibiotic in week 2. The treatment group was administered with **B.I.O.Zink SL** on day 3, 4 and 6 in order to stabilize the gastrointestinal tract during and after antibiotic use. To enhance the efficacy of the IBD vaccination, **B.I.O.Zink SL** was again administered on day 11, 12 and 14.

**Table 1:** For data analysis, the mortality rate, slaughter weight and performance index were measured.

Group	Control group	Treatment group
Number of animals	19,842	19,482
Antibiotic/ vaccination	AB Doxycyclin Colistin C on day 1 - 4, ND live and killed vaccine on day 4, IBD live vaccine on day 12, AB Amoxicillin in week 3	



**Figure 2:** Mortality rate in %.

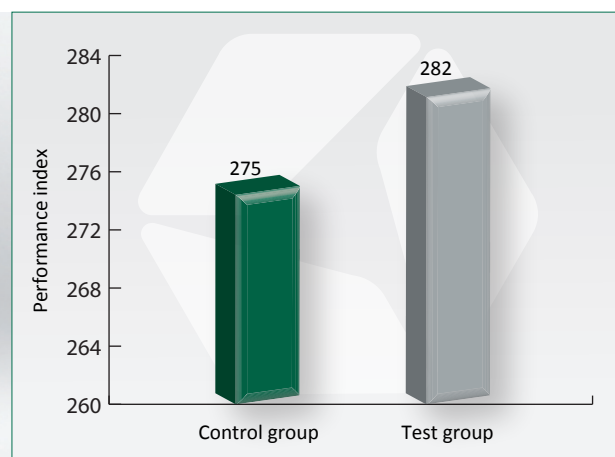
### Results

The slaughter weight was 100 g higher in the treatment group (1.45 vs. 1.44 kg). The feed conversion rate differed slightly amounting to 1.53 and 1.56 kg/kg gain in the control and treatment group, respectively. The mortality rate was markedly lower in the treatment group (Figure 2). This difference came to 2.11% at slaughter after 32 days, and shows that the use of **B.I.O.Zink SL** is beneficial for the birds. Also, the performance index was markedly better in the treatment group.

The difference of 7 index points illustrates the profitability of the use of **B.I.O.Zink SL** (Figure 3).

### Conclusion

The trial demonstrates the benefits of the administration of **B.I.O.Zink SL**. The animals are healthier due to a higher intestinal stability and improved immunity. Therefore, the vaccination and medication are less stressful for the birds and the profitability can be raised.



**Figure 3:** Performance index.

## General information

**B.I.O.Zink SL** supports the efficacy of veterinary treatments. Veterinarians also recommend the product during dysbacteriosis, diarrhea and for prevention of coccidiosis in poultry flocks.

**B.I.O.Zink SL** consists of carefully balanced vitamins and organically bound trace elements. Due to the high bioavailability and precise dosage of the glycine chelates, **B.I.O.Zink SL** is a valuable supplement. An optimal dose of zinc should be given for stimulation of the gut immune response and to prevent poor or reduced growth rates.

Betaine prevents dehydration and helps to maintain an ionically-balanced gut micro-environment. It retains water in the cells of the gut wall and in turn reduces water content of feces and improves nutrient absorption. Due to its function as osmolyte, betaine improves the efficacy of coccidiostats.

## Package size

1 kg



**B.I.O.Zink SL** - Optimal solubility.

SYNERGISTIC EFFECTS OF 11 COMPONENTS RESULTING IN SIGNIFICANT REDUCTION OF STRESS SYMPTOMS.

With you all the way!

