

LOVIT *GRANULE*

Skin Plus

Self-dispersing granules with methionine, biotin, and zinc for a strong skin barrier, sturdy legs, and good plumage.

Convincing advantages:

- Helps to prevent footpad dermatitis
- Strengthens the skin barrier function
- Dissolves quickly without residues



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A strong skin barrier: important for well-being and performance.

Footpad dermatitis (FPD) is a pervasive problem in poultry fattening. Not only do the affected animals suffer a loss of performance, impaired legs are often not suitable for sale. FPD is often accompanied by skin lesions, which leads to an increase in the number of rejected animals and a further drop in profit. Affected animals suffer pain, resulting in lower feed intake. For this reason footpad dermatitis has become an audit criterion with relevance to animal welfare. If the feed contains limited amounts of vitamins (e.g. biotin, riboflavin) and amino acids (e.g. methionine, cysteine), this can significantly promote the occurrence of FPD and poor wound healing. The skin can no longer carry out its protective function due to the lack of physiological keratin and collagen formation.^{1,2,3}

The knowledge behind LOVIT Granule Skin Plus. LOVIT Granule Skin Plus is a self-dispersing, highly-effective granulate with the ideal blend of methionine, biotin, and zinc. These are essential for the development of keratin and collagen, and thus for strong skin, claws, and plumage: Prevention instead of loss.

Methionine is of significance for the synthesis of cysteine, which is responsible for the stability of keratin (skin and plumage). Around 7% cysteine is contained in the keratin of feathers. Due to its role as methyl group donor, it is also involved in the synthesis of numerous important compounds, such as choline (lipid metabolism) and adrenalin (hormone metabolism).^{3,4,5}

Biotin is a co-factor for carboxylase in lipid and amino acid metabolism, for gluconeogenesis (provision of glucose in hunger periods) as well as for DNA and RNA synthesis. Biotin is thus highly significant for all tissue with high metabolic activity, such as skin. Even a slight lack of biotin is manifested in poor plumage, inflammation of the skin on beaks and legs in addition to retarded growth.^{3,5,6}

Zinc contributes primarily to the formation of keratin and collagen, and is an important factor for bone formation. It is a part of many metalloproteins and stabilises the cell membranes, meaning that adequate zinc supply is reflected in natural growth. Furthermore, zinc is essential for the functionality of many hormones (e.g. insulin) and the immune system. Supplementation with zinc promotes wound healing, growth and resistance against infections.^{3,5,6}



LOVIT Granule Skin – the plus for strong skin. The interaction of methionine, biotin and zinc in LOVIT Granule Skin Plus is important for the maintenance of robust epithelial tissue. The balanced combination of active ingredients helps prevent skin damage. Thanks to the unique formulation as effervescent granules, LOVIT Granule Skin Plus is easy to use.

Composition per kg: Effervescent granules with methionine 33,300 mg, biotin 835,000 µg and zinc 12,000 mg.

Recommended use: 1 kg per 3,000 l of drinking water for a period of 3 – 7 days during the first week of life. Repeat at regular intervals as necessary.

Standard packaging: 5 x 5 kg bags per box, 25 x 1 kg bags per box, 10 x 1 kg bags per box.

References:

- 1 Shepherd EM, Fairchild BD. Footpad dermatitis in poultry. *Poult. Sci.* 2010;89:2043-2051.
- 2 Haslam SM, Knowles TG, Brown SN et al. Factors affecting the prevalence of foot pad dermatitis, hock burn and breast burn in broiler chicken. *Br. Poult. Sci.* 2007;48:264-275.
- 3 Jeroch H, Simon A, Zentek J. *Geflügelernährung*. Ulmer 2012.
- 4 Plackett D. *Biopolymers: New Materials for Sustainable Films and Coatings*. Wiley, 2011,115
- 5 Pape H-C, Adams CA, Busch A, et al. *Futtermittelzusatzstoffe – Technologie und Anwendung*. AgriMedia 2006.
- 6 Biesalski HK. *Vitamine und Minerale*. Thieme 2016.