

NuSol

A Chelated Mineral Acidifier

Acidification of water through organic acids improves water quality by protecting against microbial and fungal contamination and/or degradation. The free hydrogen portion of a dissociated organic acid lowers pH, thereby creating unfavorable conditions for bacterial pathogens. Immune system will be strengthened by acting against pathogens. Furthermore, securing a low pH in the gizzard and proventriculus, may improve protein digestibility. The use via the drinking water will therefore not only create hygienic conditions in the water itself, but also lead to improved performance parameters in the bird. The recent research showed that short inclusion of the drinking water acidifier, daily weight gain and feed conversion were improved significantly.

NuSol also provides chelated copper to the bird's requirements. Copper contributes to the bird's intestinal health as an antimicrobial agent against E.coli, salmonella, etc., and in protecting cells from free radical damage. By lowering disease challenge, supplemental copper can help ensure that a greater portion of a bird's finite quality of available energy will be directed towards growth and development, rather than fending off disease.

NuSol also provides a source of Zinc, Manganese, and Chromium chelated with organic acids and amino acids.

The Role of Chelated Zn, Mn, Cr:

Zinc (Zn) is required for the efficient functioning of body enzymes, protein and carbohydrate metabolism during growth and reproduction. Increasing Zn status will improve immune response and overall ability of the immune system to respond to a challenge. Zn is also required to encourage egg production, hatchability, skin integrity, feathering and growth.

Manganese (Mn): It is associated with bone formation and hatchability. A deficiency in young growing birds is known as perosis. This is seen as a malformation of the hock-joint in the form of swelling and flattening. High levels of Ca and P in the diet tend to increase deficiency symptoms of Mn. Perosis is not limited to Mn deficiency alone: choline, biotin, and niacin deficiencies also produce the condition.



Chromium (Cr): There is emerging evidence to suggest that poultry may have a dietary requirement for chromium. The beneficial effects include improved growth rate, feed efficiency, and improved glucose metabolism. Reduced mortality of broilers reared under high environmental temperatures. Organic chromium sources has shown to have higher bioavailability in poultry.

The Role of Chromium in Heat Stress:

Heat stress has been associated with depressed growth in meat-type birds and a decline in egg production and quality in laying hens. During heat stress, feed intake tends to decrease, thus the availability of certain important minerals is reduced. Chromium (Cr) is one such mineral which is required for maintaining growth performance in poultry due to its role in growth, metabolism and alleviation of lipid peroxidation. Chromium was suggested to be a bioactive part of a biomolecule called chromodulin, which is a part of insulin signaling pathway and appears to affect carbohydrate and lipid metabolism via the action of insulin.



NuSol Advantages:

1. Acidifies intestinal gut to minimize bad pathogens
2. Provides pathogen fighting minerals
3. Less corrosive
4. No smell of acids
5. Effectively brings water pH down
6. Provides chromium to fight heat stress



You can trace every sickness, every disease and every ailment to a mineral deficiency.

Quote from Nobel prize winner Dr. Linus Pauling