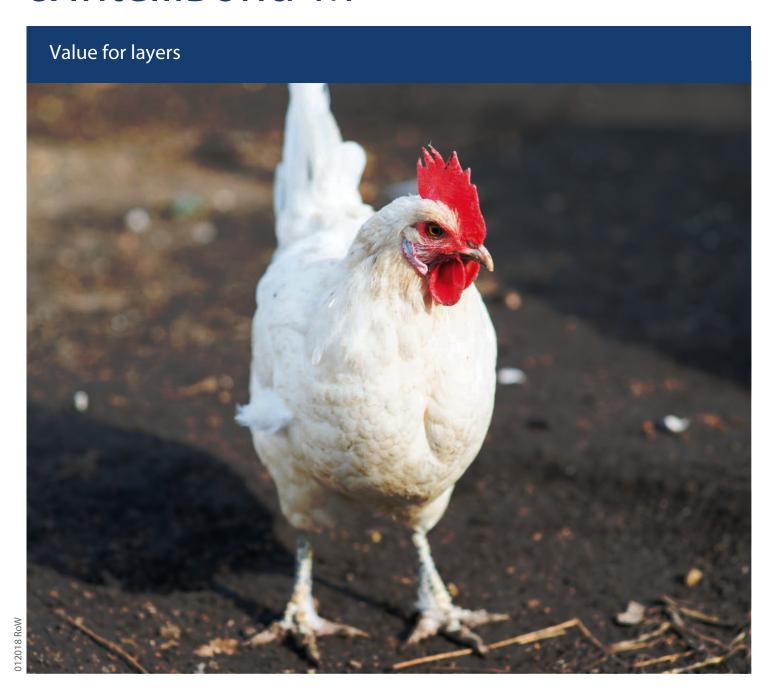


IntelliBond® Z & IntelliBond® M





Why zinc and manganese?

Zinc and manganese are essential elements required to optimise immune function, improve longevity and increase layer productivity. These minerals must be efficiently absorbed to meet the physiological needs of a high producing layer. Layer diets are typically supplemented with high concentrations of zinc and manganese to ensure that the animal's requirement is met.

Commodity minerals, like sulphates and oxides, are commonly utilised due to their low cost. However, independent research has proven that differences in mineral source can significantly influence feed production in the mill, oxidation of nutrients in the feed and productive performance of the bird.



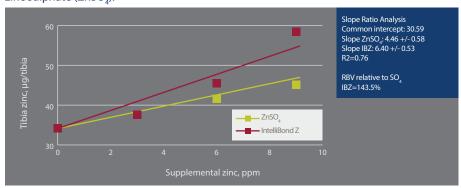
Key characteristics of IntelliBond®



IntelliBond trace minerals avoid reactions in the upper gastrointestinal tract with countless antagonists, which can rob the bird of many essential nutrients. This ensures that more zinc and manganese are available for the bird to use.

Unique Crystalline Structure It results in low reactivity and ensures the consistent, sustained release of mineral ions along the entire length of the intestinal tract, optimising absorption. More zinc and manganese are delivered to the intestinal tract.

Figure 1. IntelliBond Z (IBZ) relative availability (RBV) compared with zinc sulphate ($ZnSO_a$).

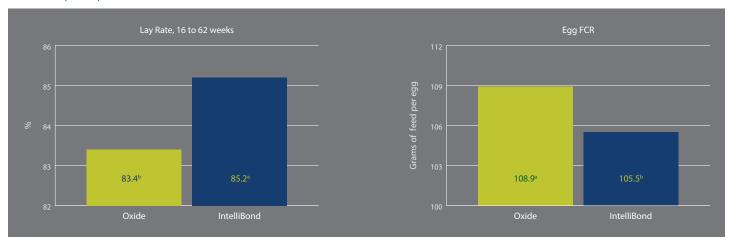


Validated results

Do IntelliBond hydroxy trace minerals improve layer performance compared with feeding inorganic oxide mineral forms?

An independent research study conducted at Texas A&M University evaluated layer performance when feeding either oxide minerals or IntelliBond minerals (60 ppm zinc and 80 ppm manganese) over a 51 week production cycle.

Figure 2. Lay rate (left) and egg feed conversion ratio (FCR) of layers fed either oxide or IntelliBond trace mineral sources of zinc and manganese. Different superscripts next to numbers denote statistical differences (P<0.05).



Discussion and economics

In this trial, layers fed IntelliBond minerals had a better (P<0.05) egg laying rate and required less (P<0.05) feed to produce an egg than layers fed oxide minerals.



Over the 44 weeks of study, the average layer fed a diet formulated with IntelliBond minerals produced additional eggs (274 vs 269).



Furthermore, layers fed IntelliBond minerals in this study required 300 grams less feed to produce the higher quantity of eggs.



Extrapolating to a one million bird layer flock, similar results as were achieved in this study would generate an additional 5,000,000 eggs while using 300 less tonnes of feed.

Why is **IntelliBond®**

the smart choice for layer producers?



- More minerals made available, more productive birds.
- IntelliBond reacts less with antagonists in the upper gastrointestinal tract, protecting the metal within each IntelliBond molecule.
- Greater availability compared to sulphates. IntelliBond delivers higher levels of mineral absorption into the which maximises bird well-being and productivity.

- Exclusive OptiSize™ manufacturing technology:
- Non-hygroscopic no clumping for easy, free-flowing use.
- Uniform particle size, with essentially no dust.
- Large, spherical, high-density particles for precise, uniform mixing in feed.

IntelliBond[®] portfolio

IntelliBond products represent one of the highest quality trace mineral technologies available for animal nutrition today, creating a comprehensive portfolio to meet a wide range of animal performance needs. Our minerals are designed to have ideal reactivity to avoid destructive interactions and promote availability, driving optimised animal health and productivity. IntelliBond mineral quality is assured by one of the most robust quality control and quality assurance programs in the industry.

- IntelliBond C (Copper hydroxychloride)
- IntelliBond Z (Zinc hydroxychloride)
- IntelliBond M (Manganese hydroxychloride)



Our numerous food safety and quality certifications mean sellers and users from around the world can be confident when they turn to IntelliBond trace minerals.













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IntelliBond avoids negative interactions

BENEFITS IN

THE BIRD

