



# Responsible Minerals

Minerals are essential nutrients for dairy cows. The nutritional objective is to ensure that the requirements are met to optimise health and performance and subsequently the profitability of your herd.

## Higher performance for lower environmental impact

A responsible mineral strategy with Selko® IntelliBond® supports optimal cow health and productivity. By improving ration utilisation, it helps ensure cows perform at their best.

Compared to copper sulphate and other conventional trace mineral sources, Selko IntelliBond significantly enhances ration digestibility. Copper sulphate's antimicrobial properties negatively affect the rumen environment, reducing microbial activity and feed efficiency, which can harm overall performance. Research confirms the benefits of improved digestibility, for example in the study below, cows fed IntelliBond instead of conventional sources reached peak milk yield sooner and produced 3.5 litres more milk at peak lactation (Figure 1).

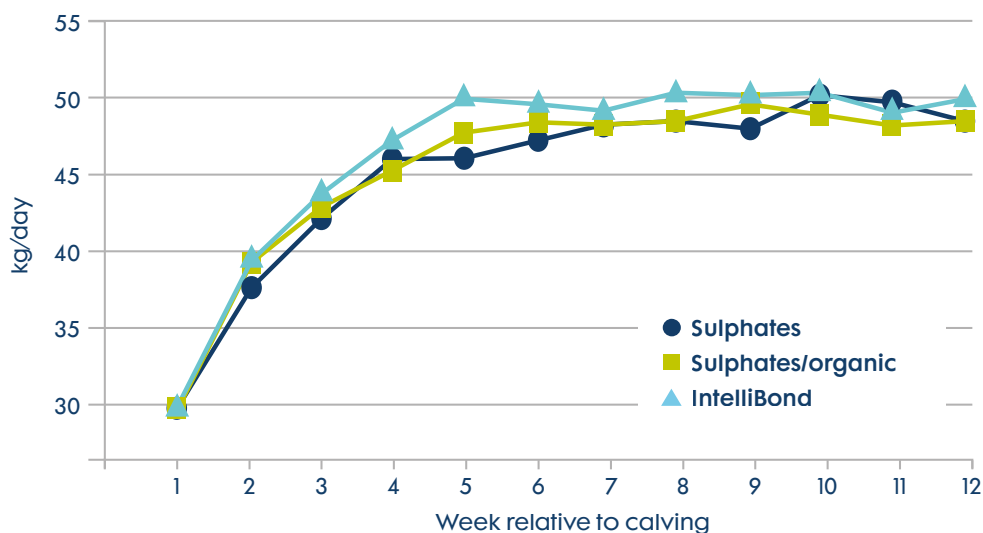


Figure 1: Milk yield of cows supplemented with Selko IntelliBond, sulphates, or a mixture of sulphates and organic trace minerals.

Selko IntelliBond's superior bioavailability also allows to feed optimised levels while still meeting animal trace mineral requirements. By so doing you will reduce waste and minimise the environmental impact of excreted minerals.

## Selko IntelliBond: The first verified LCA trace mineral

As sustainability becomes of increasing importance in animal nutrition, feed compounders face growing pressure to enhance transparency and reduce the environmental footprint of their formulations. We are proud to share Selko IntelliBond Z, C and M has been officially listed as the first improved Trace Mineral source in the Global Feed LCA Institute (GFLI) database.



This verification marks a breakthrough in sustainability for trace minerals, providing feed producers with credible, science-backed data to drive responsible feed formulation that aligns with farmers' needs.

Selko product	Co <sub>2</sub> eq/Mt product	Co <sub>2</sub> eq/kg metal	% Metal
Selko IntelliBond C	2.51 Mt	4.66 kg	54%
Selko IntelliBond Z	1.93 Mt	3.51 kg	56%
Selko IntelliBond M	2.65 Mt	6.02 kg	44%

Figure 2: CO<sub>2</sub> equivalents per metric tonne of Selko IntelliBond produced and per kg of metal for Selko IntelliBond Copper, Selko IntelliBond Zinc and Selko IntelliBond Manganese.

## What does this mean for the animal feed industry?

**Transparent supply chains:** Our independently verified LCA means you can confidently include Selko IntelliBond in your feed formulations, knowing its environmental impact has been scientifically assessed and validated and complies with global sustainability standards.

**Accurate carbon footprint calculation:** Compounders using tools such as MyFeedPrint can more precisely calculate the carbon footprint of their feed production and move away from using proxy values.

**Performance with a sustainability advantage:** Alongside the environmental benefits, Selko IntelliBond has been shown to enhance fibre digestibility, leading to improved rumen function and enhanced bioavailability of trace minerals as mentioned above.

**By supporting better health, fertility and milk production, Selko IntelliBond can help to reduce culling rates and extend the lifespan of dairy cows – improving Lifetime Daily Yield. Additionally, a Life Cycle Assessment (LCA) on Selko IntelliBond's impact on lactational performance shows a 2.6% reduction CO<sub>2</sub>e/ kg FPCM.**



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