Minerals 101

**Trace Minerals** are needed by the body in very small amounts for healthy immune function, growth, reproduction, wound healing, and metabolism. Trace minerals are usually listed as ppm (mg/kg) on the tag: Cu, Zn, Mn, Co, I, Se, Mo, Fe and Cr.

**Chelated Trace Minerals** are attached to organic molecules such as amino acids, peptides, or carbohydrates. This attachment allows the trace minerals to be more easily absorbed and delivered to their target organs. Chelated minerals are often referred to as “organic” molecules.

**Macro Minerals** are required by the body in much larger quantities in comparison to the micro minerals. The primary function of macro minerals is to serve as the body's mechanism for maintaining homeostatic pH (acid-base balance), movement of water in and out of cells, muscle contractions, energy transfer, blood pressure, and neural transmission. Macro minerals are usually listed as % on the tag and are often referred to as “electrolytes: Ca, P, Mg, Na, Cl, K and S.”

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**Ranch-O-Min 12-12-12 w/Copper (Cu)**

**The Gold Standard.** 12% Ca, 12% P, & 12% Salt.

Complete mineral with a 1:1 Calcium to Phosphorus ratio, designed to meet or exceed the trace mineral requirements of beef cattle and horses maintained on pasture. Can be fed throughout the year, however is most ideal as a mineral supplement during summer, fall, and winter months. This mineral has chelated Copper, Zinc, Manganese, and Cobalt and added Iodine to support healthy hooves. Fortified with added Vitamins A, D, and E. Available in weatherized loose or blocked form.

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**Ranch-O-Min 12-12 Calving Mineral w/Bio-MOS & CTC4000**

**Calving Mineral.** 12% Ca, 12% P, & 12% Salt.

Designed to be offered to cow-calf pairs during calving and early lactation to support calf livability and promote efficient nutrient transfer from cow to calf. This is a complete mineral with a 1:1 Calcium to Phosphorus ratio, designed to meet or exceed the trace mineral requirements of beef cattle maintained on high-calcium forage (i.e. alfalfa hay). This mineral provides Bio-MOS and an antibiotic, Chlortetracycline (CTC). Bio-MOS promotes beneficial bacteria in the gut and inhibits certain pathogenic bacteria, thereby maximizing herd health and performance. The CTC will aid in the control of bacterial pneumonia associated with shipping fever. Available in weatherized loose form, 1-ton minimum.

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**Ranch-O-Min 12-12 Calving Mineral w/Bio-MOS and CloSTAT**

**Natural Alternative.** 12% Ca, 12% P, & 12% Salt.

A novel mineral concept that supports the cow and calf during the calving season. There is not another mineral supplement like this on the market! This mineral is formulated with two types of all-natural microbial-based products that are added to help support calf livability (Bio-MOS and CloSTAT). Bio-MOS, a yeast-based product, promotes beneficial bacteria and inhibits certain pathogenic bacteria in the gut and CloSTAT, *Bacillus subtilis* probiotic product, has targeted activity against *Clostridium perfringens* in the calf. Fortified with added Vitamins A, D, and E. Available in weatherized loose form.

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**Ranch-O-Min Spring Hi Mag 14-4**

**Green Forage Balancer.** 14% Ca, 4% P, & 14% Salt.

Designed for cattle maintained on lush, green, spring grass or small-grain (wheat, barley, and oat) pastures. Provides elevated Calcium and Magnesium (10% Mg) to help prevent the incidence of grass tetany. Cattle should receive this mineral free-choice at least 2 - 4 weeks prior to being placed on lush green pastures. This mineral has chelated Copper, Zinc, Manganese, and Cobalt and an elevated level of Iodine to support healthy hooves. Fortified with added Vitamins A, D, and E. Available in weatherized loose or blocked form.

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**Ranch-O-Min Summer/Fall 12-6**

**Summer & Fall Forage Balancer.** 12% Ca, 6% P, & 12% Salt.

Designed to meet or exceed the trace mineral requirements of beef cattle maintained on summer and fall pasture. The Calcium and Phosphorus levels are specifically balanced to complement the changes that occur in green, but maturing forages during the warmest months. This mineral has chelated Copper, Zinc, Manganese, and Cobalt and an elevated level of Iodine to support healthy hooves. Fortified with added Vitamins A, D, and E. Available in weatherized loose or blocked form.

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**Ranch-O-Min 12-12 Calving Mineral w/Bio-MOS & CTC4000**

**Calving Mineral.** 12% Ca, 12% P, & 12% Salt.

Designed to be offered to cow-calf pairs during calving and early lactation to support calf livability and promote efficient nutrient transfer from cow to calf. This is a complete mineral with a 1:1 Calcium to Phosphorus ratio, designed to meet or exceed the trace mineral requirements of beef cattle maintained on high-calcium forage (i.e. alfalfa hay). This mineral provides Bio-MOS and an antibiotic, Chlortetracycline (CTC). Bio-MOS promotes beneficial bacteria in the gut and inhibits certain pathogenic bacteria, thereby maximizing herd health and performance. The CTC will aid in the control of bacterial pneumonia associated with shipping fever. Available in weatherized loose form, 1-ton minimum.

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**Ranch-O-Min 12-12 Calving Mineral w/Bio-MOS and CloSTAT**

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**Minerals 101**

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**Custom blends are also available on a 1-ton minimum basis.**
Ranch-O-Min Winter 10-15
*Winter Forage Balancer.* 10% Ca, 15% P, & 10% Salt.

Designed for cattle maintained on dormant winter range and/or cattle offered Calcium-rich hay (such as alfalfa). The Calcium and Phosphorus levels are specifically balanced to complement dormant forages, typical of pastures during winter months. This mineral has chelated Copper, Zinc, Manganese, and Cobalt and added Iodine to support healthy hooves. Fortified with added Vitamins A, D, and E. Available in weatherized loose or blocked form.

Ranch-O-Min Distiller’s Balancer 12-0
*By Special Request.* 12% Ca, 0% P, & 12% Salt.

Designed to meet or exceed the trace mineral requirements of beef cattle when wet or dried distiller’s co-products are fed. This mineral is made to complement the imbalance of Phosphorus and Sulfur inherent in distiller’s co-products. Elevated levels of Copper and Zinc, and added Thiamine to offset problems associated with high Sulfur intake. Fortified with added Vitamins A, D, and E. Available in weatherized loose form, 1-ton minimum order requirement.

Ranch-O-Min Wrangler 10-08
*The Economical Choice.* 10% Ca, 8% P, & 20% Salt.

Designed to meet the minimum trace mineral requirements of beef cattle, horses, and goats maintained on pasture. Can be fed through-out the year, however is most ideal as a mineral supplement during summer and fall months. This mineral has the lowest Selenium concentration of any of Ranch-Way’s house minerals for farms and ranches that have a known high Selenium concentration in water and forage sources. Fortified with added Vitamins A, D, and E. Available in loose form.

Ranch-O-Min 1:1 Performance Mineral Tub (200 lb)
*Matter of Convenience.* 6.5% Ca, 6.5% P, & 3% Salt.

This is a mineral tub inspired by our, “Gold Standard,” the Ranch-O-Min 12-12-12 Mineral with Copper, in a larger 200 lb package. This is a complete mineral with a 1:1 Calcium to Phosphorus ratio, designed to meet or exceed the trace mineral requirements of beef cattle and horses maintained on pasture at 2-4 oz/hd/day intake. This mineral tub can be fed through-out the year, however is most ideal as a mineral supplement during summer, fall, and winter months. This mineral has chelated Copper, Zinc, Manganese, and Cobalt and added Iodine to support healthy hooves. Available in 200 lb tub.

We also have species-specific mineral supplements...

<table>
<thead>
<tr>
<th>Mineral Name</th>
<th>Type</th>
<th>Form</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R-O-M 12-12 All-Stock</strong></td>
<td>All classes of livestock, year-around. Has no added copper, safe for sheep. Available in loose or blocked form.</td>
<td><strong>R-O-M Sheep Mineral</strong></td>
<td>Highly fortified, no added copper, designed specifically for all classes of sheep. Available in loose form.</td>
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<tr>
<td><strong>R-O-M 10-15 All-Stock</strong></td>
<td>For all classes of livestock (except horses) on winter range or fed calcium-rich hay (such as alfalfa). Has no added copper, safe for sheep. Available in loose or blocks. Available on a custom basis, 1-ton minimum.</td>
<td><strong>R-O-M 1:1 Goat Mineral</strong></td>
<td>Highly fortified for all classes of goats. Available in loose form.</td>
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Note: Ranch-Way’s minerals contain cutting-edge nutrition technology from Alltech and the Zinpro Corporation.