

# MegaMin



### Broad Spectrum Mineral Livestock Supplement



TYPICAL ANALYSIS	Calcium (Ca)	Phosphorus (P)	Sulphur (S)	Magnesium (Mg)	Potassium (K)	Silicon (Si)	Iron (Fe)	Manganese (Mn)	Zinc (Zn)	Copper (Cu)	Cobalt (Co)	Selenium (Se)	Iodine (I)	Molybdenum (Mo)	Boron (B)	Salt (NaCl)	Copra Meal	Molasses	Crude Protein
MegaMin Loose Supplement ORIGINAL	9.3%	2.0%	1.6%	2.4%	1.7%	19.5%	4.9%	0.12%	760 mg/kg	120 mg/kg	20 mg/kg	2.5 mg/kg	4 mg/kg	1 mg/kg	10 mg/kg	4.0%	2.4%	N/A	0.5%
MegaMin Loose Supplement + EXTRA PHOS	13.2%	4.0%	1.6%	2.2%	1.1%	16.9%	4.2%	0.13%	1460 mg/kg	170 mg/kg	20 mg/kg	4.5 mg/kg	4 mg/kg	0.5 mg/kg	12 mg/kg	4.0%	2.4%	N/A	0.5%
MegaMin Loose Supplement + EXTRA SULPHUR	7.7%	2.0%	8.1%	2.4%	1.5%	18.1%	4.6%	0.12%	795 mg/kg	124 mg/kg	20 mg/kg	2.5 mg/kg	8 mg/kg	0.8 mg/kg	8 mg/kg	8.0%	2.4%	N/A	0.5%
MegaMin Loose Supplement + 10% PROTEIN MEAL	8.7%	1.7%	2.5%	1.8%	1.8%	17.3%	4.1%	0.10%	630 mg/kg	94 mg/kg	15 mg/kg	2.1 mg/kg	4 mg/kg	0.9 mg/kg	8 mg/kg	4.0%	10.0%	N/A	2.1%
MegaMin Loose Supplement + 50% PROTEIN MEAL	4.0%	1.2%	0.8%	1.1%	1.4%	7.7%	1.9%	0.05%	330 mg/kg	50 mg/kg	8 mg/kg	1 mg/kg	12 mg/kg	0.3 mg/kg	2 mg/kg	12.0%	50.0%	N/A	10.5%
MegaMin Loose Supplement + USDA/NOP BLEND	9.3%	2.0%	1.6%	2.4%	1.7%	19.5%	4.9%	0.12%	760 mg/kg	120 mg/kg	20 mg/kg	2.5 mg/kg	4 mg/kg	1 mg/kg	10 mg/kg	4.0%	N/A	N/A	N/A
MegaMin Lick Block ORIGINAL	11.7%	2.1%	1.4%	1.9%	1.7%	18.1%	4.8%	0.19%	390 mg/kg	80 mg/kg	17 mg/kg	1 mg/kg	10 mg/kg	6 mg/kg	9 mg/kg	10.0%	N/A	20%	1.4%

#### PRODUCT RANGE



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# Minerals – Their function

**CALCIUM.** One of the most important elements in the body and in the soil. Required for a wide range of bodily functions and particularly for healthy bones and teeth. Required in a ratio with Phosphorus of 1:1 to 8:1. It is now realised that the old idea of a strict 2:1 ratio is not required provided both calcium and phosphorus are adequately supplied. Recent research indicates that requirements are not as high as was once thought providing Calcium is in a form readily absorbed by the animal and in balance with other minerals. Deficiencies are often associated with grain feeding or grazing improved pastures particularly tropical grasses. Classic symptoms include hypocalcaemia or milk fever, calving difficulty, retained placenta, prolapsed uterus, rickets, skeletal abnormalities such as “big head” and stunted growth.

**PHOSPHORUS.** Plays an important role in the conversion of feed into energy. Phosphorus is the most limiting factor in cattle production in wide areas of northern Australia. Classic deficiency symptoms include brittle bones, “peg leg”, depraved appetite, emaciation, poor appetite, low production and reproduction. Recent research has indicated that requirements are not as high as previously thought. Response to supplementation is often enhanced when the supplement includes calcium, sulphur, manganese, and copper. Excessive rates of supplementation may result in reduced absorption.

**MAGNESIUM.** Essential for many vital processes in the animal's body, particularly for carbohydrate metabolism. Deficiency symptoms include nervous behaviour, stiff stilted gait, twitching face and ear muscles, collapse, sudden death (grass or oat tetany). Animals grazing lush oats or grasses in cool humid weather are particularly at risk.

**SULPHUR.** Essential in the formation of a number of amino acids. A major component of wool. The important fungi in the rumen have a high requirement for sulphur. Assists in the detoxification of prussic acid in forage sorghum. More readily available in green pasture and almost universally deficient in dry feed. Deficiency reduces the animals' ability to digest roughage and can lead to marked reduction in production due to reduced microbial protein.

**POTASSIUM.** Important in the regulation of osmotic pressure, muscle contractions, and certain enzymatic reactions. Deficiency symptoms include reduced weight gain, depraved appetite, rough coat and muscular weakness. May be associated with calving and lambing difficulties.

**IRON.** An essential component of a number of proteins involved in oxygen transport and utilisation. The typical symptom of deficiency is anaemia.

**SILICON.** The most overlooked element in animal nutrition. Plays a vital role in cell formation. Of particular importance for hair and hoofs. The importance of silica in plant growth and human health has only recently gained attention.

**MANGANESE.** An essential biocatalyst in normal growth and bone development, maintenance of body weight, and proper functioning of reproductive and mammary glands. Activates calcium, phosphorus and iron. Important for rumen bacteria. The most important symptoms of deficiency include the reduction in the ability to absorb phosphorus and a reduction in microbial protein.

**ZINC.** Important for the normal function of the immune system. Required for healthy skin and coat. Deficiency symptoms include reduced production, reduced testicular growth, and swollen feet.

**COPPER.** Rates second to Phosphorus as the most common limiting mineral in animal production in northern Australia. Deficiency symptoms include dull rough coat, lack of colour in coat, steely wool, fragile bones, reduced growth, poor reproduction, sudden death. Deficiencies often occur in association with cobalt deficiency or can be caused by excess supplementation with sulphur or over use of fertilisers containing molybdenum.

**COBALT.** Required by the rumen bacteria to synthesise vitamin B12. Typical symptoms include a wormy/wasting appearance, running nose and eyes, anaemia and death.

**BORON.** Believed to be necessary for the synthesis of calcium and magnesium. Also thought to play a role in normal brain function.

**IODINE.** Involved in the production of hormones and is important in growth and metabolism.

**MOLYBDENUM.** Important enzyme component. Deficiency symptoms include scouring.

**SELENIUM.** Important element in reproduction and immune function. Deficiencies have been linked to retained placentas, poor growth, white muscle disease and reduced wool growth. Selenium may have a very narrow safety margin. Superphosphate may reduce Selenium availability. (Rooney et al 1977).



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# Feeding guide

A basic guide for recommended daily intake is 10 – 20 grams / 100kg body weight / day. For the MegaMin 50% Protein Meal blend, 40-80 grams / 100kg body weight / day is recommended. The following tables outline some examples of average daily consumption.

Mega Min Loose Supplement		Grams Per Head Per Day		
		Original Extra Phos Extra Sulph	10% Protein Meal	50% Protein Meal
	CATTLE	40-100	40-100	200-400
	SHEEP	5-10	5-10	20-40
	HORSES	30-80	30-80	200-300
	PIGS	10-30	10-30	-
	GOATS	5-10	5-10	20-40

Mega Min Lick Block		Feed Rate g/day	Head Per Single Block	
			17kg	75kg
	CATTLE	40-100	15	45
	SHEEP	5-10	40	100
	HORSES	30-80	10	30
	GOATS	5-10	40	100