MAKE YOUR MARK

Marks-Min

Injectable Trace Mineral with Vitamin B12 for Cattle

NEW

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What is Marks-Min?

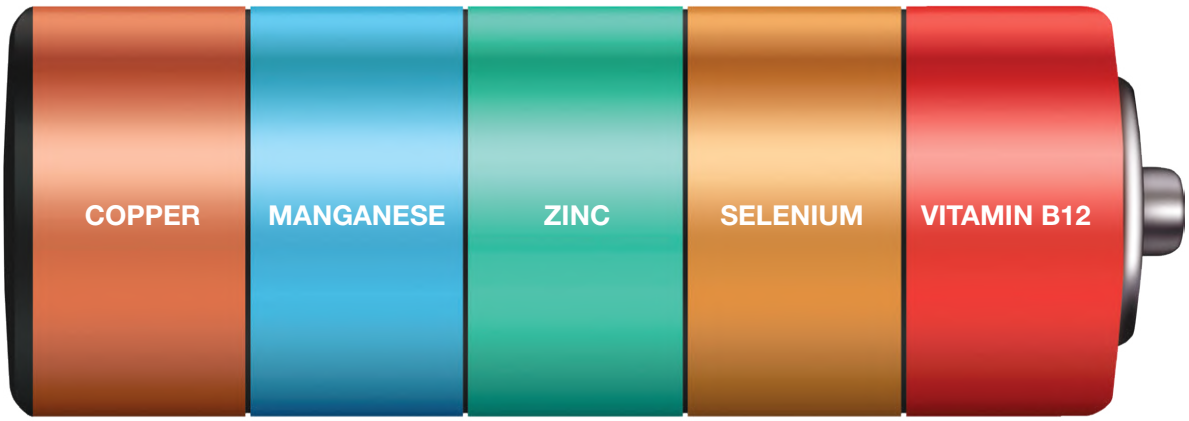
Marks-Min is a trace mineral injection for cattle that contains the trace minerals copper, manganese, zinc and selenium along with vitamin B12, which are required for optimal health, production and fertility.

Optimising trace mineral and vitamin B12 levels at critical times, like calving, mating and drying off, can have a positive impact on health, immune status and reproductive capacity of livestock.

Marks-Min provides trace minerals and vitamin B12 in one convenient rapidly absorbed injection, ensuring essential trace minerals for optimal health are available together with energy provided by vitamin B12 to help support the best response to trace mineral supplementation.

POWER-UP WITH MARKS-MIN

Trace Mineral with Vitamin B12 in a convenient single dose.



COPPER	MANGANESE	ZINC	SELENIUM	VITAMIN B12
Has a role in: • The metabolism of iron • Bone development • Maintenance of connective tissue • Blood formation • Disease resistance • Reproduction/ fertility and retention of placenta.	Has a role in: • Protein metabolism • Disease resistance • Bone, cartilage and connective tissue development • Reproduction/ fertility, ovulation, sperm development and embryo survival.	Has a role in: • Cell growth & wound healing • Skin and hair & hoof growth • Lung function. • Bone and cartilage development. • Disease resistance. • Reproduction/ fertility, sperm development, udder function and retention of placenta	Is an anti-oxidant, Has a role in: • Disease resistance • Muscle function • Reproduction/ fertility, sperm development embryo survival and retention of placenta	Has a role in: • B12 is vital for energy production and protein synthesis in ruminants • Which is essential to meet the demands of growth and lactation

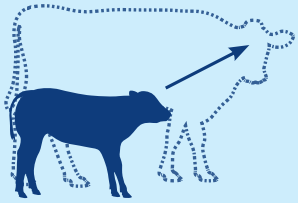
OPTIMUM HEALTH & PERFORMANCE

The individual trace mineral status of an animal can be a rate limiting factor determining animal performance. If trace mineral levels are less optimal, production may suffer with processes such as growth, reproduction and immune defence not functioning to their capacity.

Optimising trace mineral and vitamin B12 levels by using feed or oral supplements may not be successful as there is variation in individual intake, low absorption from the digestive system and competition with other dietary components. This can limit the success of a supplementation program. Using injectable mineral supplementation can avoid these variables by being rapidly absorbed into the bloodstream and made readily available to support optimal health and production. Minerals not immediately required are stored in the liver and mobilised as required.

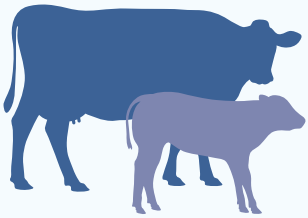
Managing trace mineral levels to ensure there is adequate supply, especially during high demand periods, is an important part of maximising production potential and managing animal health.

SUPPORTING OPTIMAL HEALTH AND PERFORMANCE



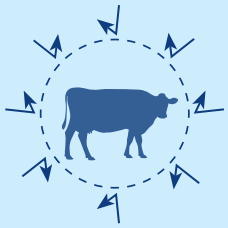
GROWTH

Marks-Min provides elements that support growth by aiding bone, joint and muscle development and function (Copper (Cu), Manganese (Mn), Zinc (Zn), Selenium (Se)) and energy metabolism (Vitamin B12)



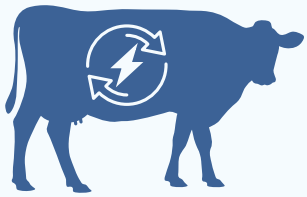
REPRODUCTION

Marks-Min provides elements that support reproduction by aiding the development of male and female reproductive systems, the process of fertilization and also the maintenance of pregnancy (Cu, Mn, Zn, Se)



IMMUNE DEFENCE

Marks-Min provides elements that support immune defence by aiding function of the immune system and white blood cells that help resist establishment of infection



ENERGY

Vitamin B12 plays a key role for the production of energy in livestock. Energy is required for all body processes and it is the backbone of all production.

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How to optimise production by managing minerals

WHAT ARE TRACE MINERALS AND WHY ARE THEY IMPORTANT?

Trace minerals are essential to body function, but are only required in very small amounts per day. These minerals may make up only a small portion of an animals diet; but play an important role in everyday life, especially for the key functions of growth, reproduction and immune defence. Present in the soil to varying degrees, trace minerals are taken up by plants and then absorbed by livestock when consumed.

Copper, selenium, manganese, zinc, and cobalt are among the most important trace minerals in livestock.

However they are amongst the most common mineral deficiencies in cattle in Australia[1,2]. Supplementation is an important part of any animal health management plan to manage these trace minerals for optimum health and performance.

Vitamin B12 is important for energy production in ruminants. Normally cobalt is taken up through the diet and converted to B12 by rumen micro-organisms. If cobalt levels are low in pasture, B12 levels can fall and this can limit energy available for body processes.

CLASS OF STOCK AND THEIR REQUIREMENTS

Every animal has a requirement for trace minerals and vitamin B12 throughout their life. At key times the demand for these is greater. If levels are not sufficient then production potential may be limited. Production targets to achieve the goal of one calf per cow per year are already within a tight window, and any limitation to hitting these targets can have long term consequences for production, profitability and sustainability.

Young stock and weaners have a greater requirement for trace minerals due to their rapid growth rates and need to develop strong and robust immune systems.

Animals that are stressed, either due to feed restriction, transport or changed surroundings (i.e. mixing into new social groups, or feedlot entry), also have increased requirements as they still need to grow and maintain immune function.

Bulls, heifers and cows also have greater requirements for trace minerals and energy heading into the joining season. Trace minerals play an important role in the function of both the male and female reproductive systems. If levels are not sufficient, these complex systems may not function to their full potential.

Trace minerals and vitamin B12 may assist in increasing animal immune status, preventing diseases and increasing reproductive rates.

Using an injectable supplement prior to high demand periods can assist in maintaining mineral and energy levels and support optimum production.

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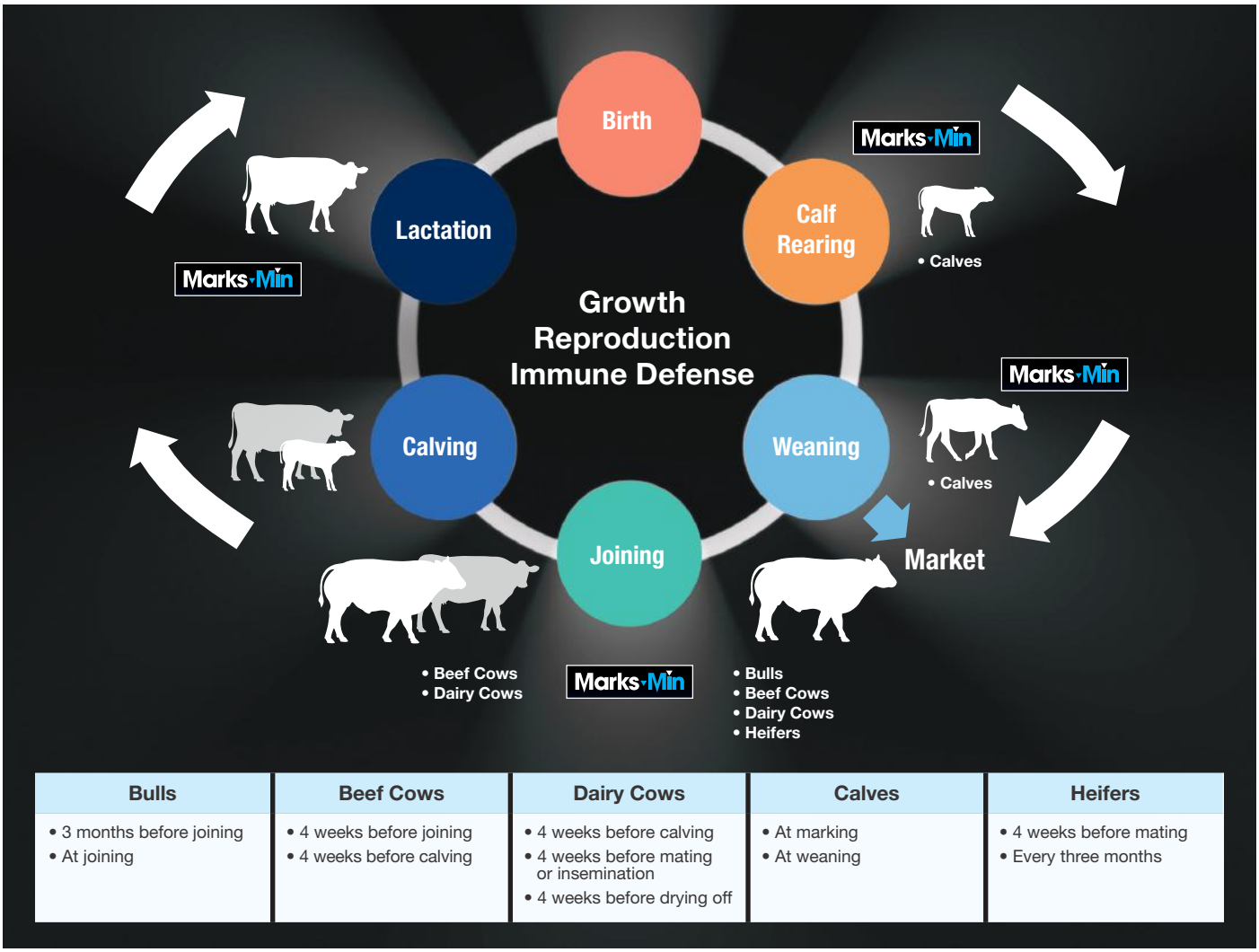
Dosage and treatment times

Age	Injection Dose Rate
Up to 1 year	1.5 mL per 50 kg
1-2 years	1.5 mL per 75 kg
Over 2 years	1.5 mL per 100 kg

- Administer by subcutaneous injection (under the skin)
- Following withdrawal of the first dose, product can be used for 9 months from opening.
- For all types of cattle

WITHHOLDING PERIODS

TREATMENT PLAN FOR OPTIMUM PRODUCTION



Bulls	Beef Cows	Dairy Cows	Calves	Heifers
• 3 months before joining • At joining	• 4 weeks before joining • 4 weeks before calving	• 4 weeks before calving • 4 weeks before mating or insemination • 4 weeks before drying off	• At marking • At weaning	• 4 weeks before mating • Every three months

Figure 1: The trace mineral levels of an individual can be a rate limiting factor determining animal performance. Managing trace mineral levels especially during high demand periods is an important part of optimising production potential and managing animal health

For more information, call 1800 808 691 or visit your local store.

marksmin.com.au

Reference:
1 Judson et al 1982;
2 Judson et al 2002

Judson, G.J., Brown, T.H., Gray, D., Dewey, D.W., Edwards, J.B. and McFarlane, J.D., 1982. Oxidized copper wire particles for copper therapy in sheep. Australian Journal of Agricultural Research, 33(6), pp.1073-1083.

Lee, J., Knowles, S.O. and Judson, G.J., 2002. Trace element and vitamin nutrition of grazing sheep. Sheep Nutrition. Wallingford: CAB International, pp.285-311.

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