

YOUR DYNAMIC SHIELD AGAINST BUFFALO FLY



Mega **Min**
Livestock Supplements

SULPHUR + GARLIC

(rich in bioactives including Allicin)

Ag Solutions
AUSTRALIA

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Protect your livestock & profit from external parasites

Buffalo fly, cattle tick and internal parasites comprise the top three costliest conditions for the Australian beef cattle industry. In particular, buffalo fly have become the most costly endemic challenge for the beef industry, with prevention and production losses amounting to an estimated \$170.3 million annually¹.

These persistent pests thrive in the hot, humid climates. Buffalo flies pose a significant threat to livestock health, causing irritation, blood loss, and secondary infections that reduce weight gain, milk production, and impacting overall animal welfare. The financial burden extends beyond direct losses, as producers face increasing costs to manage infestations and protect their herds.

MegaMin + Garlic

A formula for success!



Mega Resistance

Garlic contains a compound called Alliin, which converts to Allicin when garlic is crushed or chopped. In animals, Allicin is metabolised and released through the skin and breath, creating a natural insect repellent effect.

The garlic liquid in MegaMin has a slower release than synthetic Allicin but also a much longer persistence, meaning it has a more sustained effect as well as containing other beneficial bioactives.

MegaMin Sulphur + Garlic Range provides both sulphur and garlic liquid for increased natural resistance to external parasites.

Mega Feed Conversion

For livestock grazing forage sorghum, trials with sulphur supplementation resulted in increased weight gain of 200g/hd/day. Based on those results, for an investment in MegaMin Extra Sulphur of as little as 13.6c/hd/day, the chart shows the potential weight gain benefits over a 60 day period*.

Extra Weight Gain/Head	Extra kg Produced (over 60 days)	Daily Intake	Supplement Cost per Day*	Supplement Cost (over 60 days)	Net Return per Head (over 60 days)
200 g/hd	12 kg	100 g/day	13.6 cents	\$8.16	\$30.72/hd

*Based on livestock price of \$3.24/kg live weight and RRP (plus freight) for MegaMin Extra Sulphur of \$1,362.90 inc GST per tonne of supplement. Individual results may vary.

Mega Production

Research shows that increased dietary sulphur improves meat, wool, and milk yields. Hill (1984) reported that supplementing sulphur-deficient beef cattle boosted daily weight gains, improved carcass grading, and lowered feed costs per kg of gain. Similarly, Tisdale (1977) noted that higher sulphur intake in sheep led to increased wool production, stronger wool fibers, improved weight gain, and higher lamb survival rates.

MegaMin Sulphur/SulPhos + Garlic Range addresses these needs by providing elevated levels of sulphur and phosphorus, along with a balanced blend of macro and trace minerals.

Mega Results



“Cattle running on MegaMin Extra Sulphur only had a few fly but there was clearly more buffalo fly on the stock with no sulphur. These cattle were more agitated and not able to graze as well or put on the kilos. With only a barbed wire fence between them, we were amazed at how visible the difference was.”

David Blackwood, Ballandean QLD



Backed by Research

Sulphur

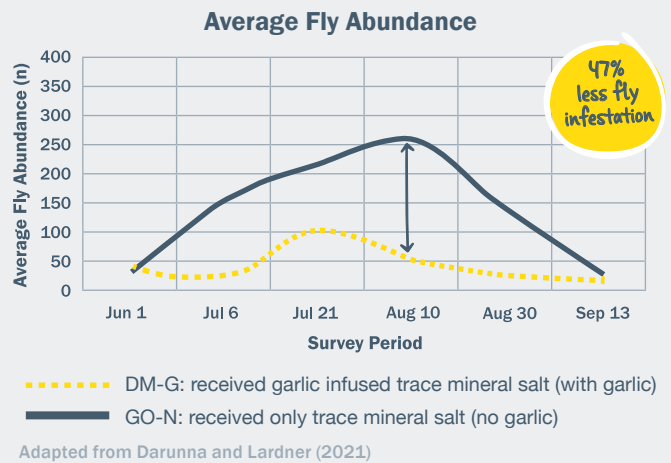
For many years, sulphur has been considered to reduce internal and external parasites such as worms, cattle ticks, lice, and buffalo fly. Research from South America has demonstrated that cattle fed supplements containing 8–12% elemental sulphur showed a significant increase in natural resistance to ticks⁵.

Garlic

The benefits of garlic in the fight against external parasites, while not new, are becoming more widely recognized in Australia's beef and sheep industries with many graziers reporting a reduction in fly and tick numbers through its use.

These observations support a study done by Alvarenga et al. (2004) where cattle fed garlic recorded a massive decrease in tick load (up to 50% lower)⁶. Research by Massariol et al. (2009) also confirmed significant decreases in tick prevalence in cattle that received garlic as part of their feed⁷.

The advantage of feeding garlic as part of parasite management programs is further substantiated by a Duranna and Lardner (2021) study where they evaluated the use of a garlic-infused trace mineral salt supplement as an alternative pest-fly control strategy in grazing beef cattle. They reported that the cattle on the garlic supplement experienced a substantial reduction in fly abundance with up to 47% fewer flies and a marked decline (41% lower) in associated defensive behaviours such as tail-flicks, side-licks, head-throws, belly-kicks and leg-stomps, which can impact cattle performance and welfare⁸.



Ticking the boxes for optimal health & production

- ✓ Contains **high quality sulphur and phosphorus sources** along with a balance of macro and trace minerals.
- ✓ Contains higher levels of sulphur, plus garlic liquid for **increased natural resistance to external parasites** such as buffalo fly, lice and ticks.
- ✓ Formulated to **improve production** and assist **weight gain** for livestock grazing lush green feed or forage sorghum (sulphur helps detoxify prussic acid).
- ✓ Supplies higher levels of phosphorus to **assist energy production** and **growth**, and **improve milk production** and **fertility**.
- ✓ Suitable **year-round supplement**.



The really good stuff

				Lick Block Range	
	Extra Sulphur + Garlic	SulPhos + Garlic	SulPhos SWEET + Garlic	Extra Sulphur + Garlic Block	SulPhos + Garlic Block
Sulphur (S)	8.0%	8.0%	8.0%	12.0%	8.0%
Phosphorus (P)	2.0%	4.0%	4.0%	1.5%	4.0%
Calcium (Ca)	8.8%	9.0%	9.0%	8.1%	12.6%
Garlic Liquid	1.0%	1.0%	1.0%	1.0%	1.0%

The other stuff matters too...

More than just assisting resistance to parasites.

MegaMin products are formulated with a comprehensive range of macro and trace minerals. These broad-spectrum minerals help address both clinical and sub-clinical mineral deficiencies that can limit livestock performance, even during favourable seasons.

Minerals cannot be synthesised within livestock, so a well-balanced mineral supplement can support rumen function, leading to healthier digestion and nutrient absorption, which in turn improves overall body condition.



Your fly fighting duo this season!

SULPHUR + GARLIC

⁵ Villar C. (2006). Genetic Crosses and other alternatives to control of Boophilus Microplus: a common cattle tick in South America. Columbia: Instituto Colombiano Agropecuario.
⁶ de Castro Alvarenga, L., et al. (2004). Changes in tick load in cattle following ingestion of different levels of garlic processing residue. Ciênc. agrotec. 28 (4). <https://doi.org/10.1590/S1413-70542004000400025>
⁷ Massariol, P.B., et al. (2009). Changes in ectoparasite load in Holstein cows fed different garlic (Allium sativum L.) levels. Revista Brasileira de Plantas Mediciniais 11(1):37-42. <https://doi.org/10.1590/S1516-05722009000100007>
⁸ Duranna, O., & Lardner, H. (2020). Impact of Garlic-infused Salt Supplement on Fly Abundance, Salt Intake, and Defensive Behaviors in Grazing Beef Cows. Sustainable Agriculture Research, 10(1), 54. <https://doi.org/10.5539/sar.v10n1p54>

Management still counts

Why is a comprehensive buffalo fly management program necessary?

In recent years, rising resistance to conventional chemicals and insecticides has driven research into innovative alternatives. In addition to injectables, tags and pour-ons, non-chemical solutions are gaining traction, as consumer demand shifts towards natural and sustainable production methods. Identified below are treatment/management strategies to consider as part of a multifaceted approach to aid buffalo fly control.

- 1 Sulphur, Mineral and Garlic Supplementation**
Research has shown that sulphur and garlic can assist with the natural resistance to external parasites such as ticks and buffalo fly. Including both sulphur and garlic in a balanced mineral supplement can offer graziers a largely hands-free (minimal labour) tool as part of their parasite management program while also providing essential minerals for health and productivity.
- 2 Cell/Rotational Grazing**
High density cell grazing and rotational grazing both have benefits when it comes to pasture utilisation and parasite control. The trampling effect that high density grazing has on mulch and manure gives a twofold advantage; providing a boost to soil biology and pasture growth, as well as assisting to hasten the breakdown of manure to interrupt the breeding cycle of buffalo fly.
- 3 Back Rubbers, Back Dusters and Fly Traps**
Self application methods such as back rubbers with oil, back dusters (including natural materials) and fly traps are a practical and ideal option for producers in areas where mustering and management of stock is difficult.
- 4 Dung Beetles**
Dung beetles provide numerous benefits that boost productivity for Australian producers. By sequestering carbon in the soil, they contribute to improved soil health in grazing systems. Their primary role of breaking down and burying cattle manure also disrupts the breeding cycle of buffalo flies and reduces the spread of diseases and pests.
- 5 Anthelmintics or Chemical Sprays (Injectables, Tags and Pour-on drenches)**
To effectively control buffalo flies, consider using chemical agents or insecticidal ear tags only during peak buffalo fly season. These treatments can provide rapid relief, improving cattle comfort and reducing stress. Delaying the use of chemical treatments until fly numbers reach a problematic threshold helps lower the risk of flies developing resistance, ensuring that these treatments remain effective over time.

Q. What is missing from most livestock supplements?

A. Trace Minerals

Did you know?

Almost 3% of a cow's body weight is comprised of minerals, and these macro and trace minerals all interact and are dependent on each other to perform specific functions. Reproduction alone is known to be dependent on Phosphorus, Copper, Potassium, Manganese, Iron, Zinc and Magnesium.

Key Trace Minerals & Their Function

- ▶ **Cobalt** is required by rumen microbes to synthesise vitamin B12.
- ▶ **Copper** deficiency leads to poor performance, poor coats and low resistance to disease.
- ▶ **Iodine** assists growth and metabolism.
- ▶ **Manganese** is important for bone development and optimisation of reproductive efficiency (females).
- ▶ **Zinc** activates enzyme systems, supports immune system, hoof health, and fertility (males).
- ▶ **Selenium** assists reproduction and immune functions.

Many supplements only provide Phosphorus, Calcium, Magnesium and a couple of trace minerals.



MegaMin Livestock Supplements are formulated to provide over 15 essential macro and trace minerals.

AgSolutions Nutrition Team

Paul Pritchard - Field Advisor

0427 671 399 | paul.pritchard@agsolutions.com.au
All states, including North and West QLD, and Western NSW

Lucas Kerkow - Field Advisor

0427 825 167 | lucas.kerkow@agsolutions.com.au
Wide Bay Burnett/Sunshine Coast

Ben Ree - Field Advisor

0448 878 044 | ben.ree@agsolutions.com.au
Darling Downs/Tenterfield

Philip Stacy - Field Advisor

0438 794 077 | philip.stacy@agsolutions.com.au
New England and Hunter Valley NSW

Nathan Ensbey - Field Advisor

0448 642 747 | nathan.ensbey@agsolutions.com.au
Mid and North Coast of NSW

