



Solutionsⁿ Garlic: A natural external insect repellent

Product Description:

20G is a highly purified source of garlic that is environmentally friendly. Garlic has many effects including promotion of gut health, modulation of rumen fermentation in high grain rations, and also being effective against external parasites.

Background:

- Garlic has been used throughout the history of mankind.
- Before antibiotics and modern pharmacy products a bulb of garlic represented an entire pharmacy of products due to the broad spectrum of effects.
- Garlic is known to have anticancer, anti-inflammatory, antifungal, antiviral, and antibacterial activity
- There are considerable differences in concentrations of bioactive components in different garlic products. The source of garlic used in 20G is highly concentrated with the biologically active components compared to typical garlic powder products.

The Science:

- Garlic increased gene expression of a cytokine that activates immune cells to the site of infections, decreased gene expression of a tight junction protein which hold the cells of the intestinal lining together, and increased villi height of intestinal papillae.
- Garlic decreased pathogenic bacteria and lowered white blood cell count.
- Garlic is most beneficial to rumen fermentation when moderate (e.g. 50:50 forage: concentrate) to high grain diets are fed to cattle
- When stockers consumed mineral with garlic (and other essential oils) at the formulated target level, fly counts were lower

- There is an abundance of research showing that garlic has insecticidal, larvicidal, pupicidal, lower adult emergence, repellency, reduced oviposition (egg laying), and reduced fecundity (fertility) to flies and other insects

The key animal benefits:

- Maintaining gut health that leads to improved overall health and productivity
- Reducing external parasites that leads to improved animal comfort increased production

Feeding directions:

20G is fed at a rate of 570 mg/h/d to beef and dairy cattle.

Supplement Feeding rate, lb./d	Cattle
	Lb. 20G / ton supplement
0.25	10.0
0.5	5.0
1.0	2.5

Sources:

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Solutionsⁿ provides practical and cost-effective technologies that address real world production issues so that producers can produce wholesome, healthy animals that perform profitably.