*The Benefits of Sulphur Supplementation on*

# PRUSSIC ACID POISONING

## FROM SORGHUM

*Issues with grazing*

# SORGHUM

*Sorghum is a grain crop commonly used as livestock feed. While there are many benefits to using sorghum for feed, in some circumstances it can be toxic to livestock. Sorghum can contain prussic acid, also known as cyanide, in levels that can cause serious harm or death to livestock, particularly ruminants.*

*If cattle have ingested sorghum with high levels of prussic acid, the acid is quickly absorbed into the blood stream and inhibits cells from absorbing oxygen. If the toxicity is high enough, the animal can die from asphyxiation on a cellular level.*

*Young plants smaller than 45cm in hight for short varieties and 65cm in hight for tall varieties often contain higher levels of prussic acid, as do plants that have been stressed by recent drought or frost. Grazing mature sorghum may help mitigate the risk of poisoning, although this is not guaranteed.*

***"Sorghum can contain lethal levels of prussic acid better known as cyanide. As well as cyanide, sorghum can have elevated levels of nitrates. Both nitrates and cyanide can cause significant animal health problems including death."***

*Benefits of*

# SULPHUR SUPPLEMENTATION

*Studies have shown that providing a sulphur supplement to cattle grazing sorghum assists in the detoxification process of prussic acid.*

*When small quantities of the acid are present in feed cattle can metabolise it- converting prussic acid to the non-toxic thiocyanate. Supplementation of sulphur increases the animal's efficiency at converting toxins to thiocyanate, which the animal then urinates out.*

*Furthermore, as sorghum does not easily absorb sulphur from the soil, cattle grazing sorghum are often deficient in sulphur to begin with. This exacerbates the problem when prussic acid is present. However, even when no toxins are present cattle may not be getting the sulphur needed for optimal growth and development.*

*Please note that sulphur supplementation is most effective as a preventative measure- if acute prussic acid poisoning occurs, please consult a vet urgently.*

## 12% HIGH SULPHUR


### *A sulphur supplement to stimulate rumen activity and wool productivity*

*Olsson's 12% High Sulphur provides sulphur and minerals that are essential in developing bacteria in the rumen, which assist in deriving nutrients from dry and fibrous feeds.*

### DIRECTIONS FOR USE

**Sheep/Goats:** 5-10g per head per day

**Cattle:** 50-100g per head per day

### TYPICAL ANALYSIS

| | | | |
|---|---|---|---|
| Molasses | 4% | Sulphur (S) | 12% |
| Salt (NaCl) | Max. 80% | | |

## 16% HIGH SULPHUR


### *A sulphur supplement to stimulate rumen activity and wool productivity*

*Olsson's 16% High Sulphur provides sulphur and minerals that are essential in developing bacteria in the rumen, which assist in deriving nutrients from dry and fibrous feeds.*

### DIRECTIONS FOR USE

**Sheep/Goats:** 5-10g per head per day

**Cattle:** 50-100g per head per day

### TYPICAL ANALYSIS

| | | | |
|---|---|---|---|
| Molasses | 4% | Zeolite | 5% |
| Salt (NaCl) | 75% | Sulphur (S) | 16% |

## REFERENCES

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