



DESCRIPTION

BROWSE PLUS is an orally administered formula for domestic and wild animals. The formula is a digestive modifier having multiple modes of action, of which the neutralizing of polyphenolic anti nutrients, in particular tannins and lignified plant material, is the principal action. Additional modes of action include the counter chelating effects of tannins on a range of micronutrients such as zinc, copper, selenium and cobalt; the restoration and promotion of rumen microbial populations; and the restoration of normal gastro-intestinal function in both ruminant and mono-gastric animals.

INGREDIENTS

Ingredients are: Polyethylene Glycol (PEG)
Polyvinylpyrrolidone (PVP)
Calcium hydroxide (Ca(OH)₂)
Ethyl Concentrate (MDDS)



MODES OF ACTION OF INGREDIENTS

POLYETHYLENE GLYCOL

Polyethylene glycol has multiple modes of action in the ruminant digestion. PEG forms preferential hydrogen bonds with heavy MW condensed tannins. This has the effect of splitting the existing protein-tannin complex. This complex may already exist in the plant material prior to ingestion or it may take place during the digestive process. The result is the formation of a PEG-tannin complex. The liberated protein is available for utilization by the animal. This utilization may take place through either one of two, or both routes: rumen microbes may utilize the degradable protein, while the undegradable protein will be subject to the normal post rumen digestive processes.

Effect of PEG on rumen microbial populations: Tannins have the ability to kill off many rumen microbes by depriving them of access to protein. Making degradable protein available to rumen microbes restores normal microbial function and results in an increase in rumen microbes.

Effect of PEG on the rumen lining: Tannins cause inflammation and lesions in the rumen lining. The complexing of PEG with tannins prevents this effect. This is important in preventing hydrolysable tannin toxicity which may take place when these lesions provide a port of entry to the blood stream for these tannins.

POLYVINYLPIRROLIDONE (PVP)

PVP performs two main functions in this formula. It is effective in neutralizing the effect of light MW hydrolysable tannins in much the same manner of PEG does with condensed tannins. PVP forms a preferential bond with h tannins. In this state h tannins are not metabolized and consequently the toxic metabolites, such as pyrogallol and pyrochatechin, are not produced. Thus systemic h tannin toxicity is prevented. An important effect of PVP is preventing the complexing of pepsin, a proteolytic digestive enzyme, with h tannins. This pepsin-h tannin complex inhibits the protein digestive process.

The second important function of PVP is the prevention of toxicity of other polyphenolic secondary plant metabolites such as mono terpenes, diterpenes and triterpenes. Some of these metabolites, which are resin-like substances, are toxic and may adversely affect digestion and result in toxicity.

CALCIUM HYDROXIDE (Ca (HO)₂)

Calcium Hydroxide performs two functions in this formula. It is effective in neutralizing the effect of hydrolysable tannins along with PVP. It also assists in reducing excessive gastric acidity which is often an effect of increased browsing activity.

ETHYL CONCENTRATE (MDDS)

This ingredient has a pronounced effect on the restoration of rumen microbe populations by supplying microbes with vital nutrients. It is also known to have growth promoting effects as yet unidentified.

DOSAGE

The minimum recommended dosage for Browse Plus is 1 - 4 grams per livestock unit per day, e.g. 1 -2 grams for sheep / goats per day and 3 – 4 grams for cattle / wildlife per day. However, the appropriate dose can only be determined for each ecological situation by carefully monitoring the effects of the commencing dose. If the desired effect is not achieved the dose should be increased until the desired effect is achieved. The magnitude of the anti-nutrient tannin problem will vary according to the nature of the vegetation browsed.

ADMINISTRATION

Through drinking water, licks, feed or pellets

RESIDUES

Polyethylene glycol and Polyvinylpyrrolidone are not absorbed from the intestinal tract of treated animal. For that reason there will be no residues in meat, blood, and milk. Ethylene Concentrate, a molasses related product, consists mainly of sugars some protein and other nutrients all of which are metabolized in the normal fashion. Calcium hydroxide, though not usually considered a nutrient as such may provide a small amount of calcium which may be absorbed.

STORAGE AND TRANSPORTATION

Following manufacture Browse Plus should be stored under cover and in a cool dry place. When transported the product should not be exposed to sunlight for prolonged periods.

For more information please do not hesitate to contact your local TSA or Virbac Head Office:

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Browse Plus Reg. No. V1103 (Act 36/1967): Namibia Reg: NFF 0482

Composition: Polyethylene Glycol 930 g/kg:

Polyvinylpyrrolidone, Calcium Hydroxide, Excipients 70 g / kg)

Virbac RSA (Pty) Ltd (Reg. no. 1990/003743/07)

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Shaping the future of animal health

