

Browse Plus®

Dosage form: Flakes.

Composition: Polyethylene glycol 930 g/kg, excipients 70 g/kg (polyvinylpyrrolidone/calcium hydroxide/dry powdered molasses stillate).

Indications: **Browse Plus®** is a specialised formula designed as a drinking water and infeed additive, which enhances the animal digestive processes and results in more efficient nutrient utilisation. It is particularly useful under dry conditions, or when grazing is in short supply. It is normally during these drier times that the condition of the livestock deteriorates even though there is still a substantial amount of nutrients available in the surroundings. Most of the nutrients are in the form of browse and less palatable grasses.

In dry times when grazing is limited and the food resources become depleted, the cattle are faced with a number of problems. In winter animals are forced to supplement their food browsing. When leaves are ingested, certain chemicals within the leaves affect the digestive process, causing the following problems:

- **Tannins:** Condensed tannins combine with proteins in the digestive tract to form a condensed tannin/protein complex. This complex deprives the animal of valuable protein, which is lost as it is not digested and passes out with the tannin in the dung.
- **Hydrolysable tannins:** These are small molecules which are able to pass from the intestine into the blood. They are carried to the liver where they block the action of the detoxifying enzymes. The metabolites of these hydrolysable tannins are potentially toxic and may even cause death.
- **Terpenes:** The most important terpenes are the oleo- resins and resins. When ingested these resins interfere with the action of the proteolytic enzymes responsible for normal protein digestion. Even if tannins were not a factor, the animal would still be affected because of the action of resin.
- **Digestive malfunction:** As a result of the interaction of the tannins, hydrolysable tannins and terpenes, as well as other chemicals released by the plant tissue, the digestive process is slowed down, the animal loses its appetite and becomes lethargic. The dung is very dark, dry and hard. As a result the animals often drink a large amount of water and remain close to the watering point. The formation of tannins/resins is the plants' natural defence mechanism, and production of these may be increased in response to browsing by animals.

Action of Browse Plus:

- The ingredients of **Browse Plus** break the condensed tannin/protein complex to release proteins, which are essential for the action of the micro flora in the rumen as well as for the digestion of cellulose.
- **Browse Plus** prevents the absorption of the hydrolysable tannins.
- The structure of resin is modified, which then neutralises their negative effect on proteolytic enzymes.
- **Browse Plus** allows the intestine to absorb vital nutrients more efficiently.

Other effects of Browse Plus:

- Leaf intake of normally browsed plants, will be increased considerably together with plants not normally eaten.
- Increased grazing of less palatable grasses.
- Digestion is more active.
- Dung will become softer with a green consistency.
- Game animals will also benefit especially in drought conditions.

Directions for use: 1-4 grams per animal per day, depending on the vegetation being eaten

Browse Plus is not a license for overstocking.

What is in it for a farmer?

Browse Plus is a cost-effective treatment.

- Save on extra purchase of supplementary feed.
- Improved use of total available feed resources.
- May also be used for game animals.
- All ingredients are biodegradable.
- Easy to use.
- Increase digestibility of browse and lignified grass.
- Can be used for ruminants.

Your cattle cannot afford to be without **Browse Plus** during difficult times.

Presentation: 1 kg, 4 kg, 10 kg.

Registration number: V11013 (Act 36/1947).