

## FRUTAFEED

Feed material

4.4.9. **Chicory inulin.** Inulin is a fructan extracted from roots of *Cichorium intybus* L.; raw chicory inulin may contain up to 1% sulphate and may contain up to 0.5% sulphite. Commission regulation (EU) N° 68/2013 of 16 January 2013 on the Catalogue of feed materials.

### Description

Frutafeed is a mixture of poly- and oligosaccharides extracted by diffusion from chicory roots. This fibre is composed of molecules with a length of about 7 units' fructose and ending on a glucose unit.

### A. FUNCTION

Monogastrics can metabolise this carbohydrate in the large intestine, but not in the stomach. Frutafeed (inulin) is fermented by the acidophilic flora. The products of this fermentation are the bacterial mass and the free fatty acids which are absorbed.

Frutafeed will selectively stimulate the growth of Bifidobacterium, a bacterium which improves the immune system.

The addition of Frutafeed, effects on the microflora:

- a) Regulates the volume of the faecal mass and the intestinal transit;
- b) Acidifies the faecal mass and elevates the short chain fatty acids (esp. propionic acids);
- c) Increases the faecal nitrogen excretion and consequently decreases kidney nitrogen excretion. High ammonia concentrations in the large intestine influence badly healthiness and disturb the activity of the cellular divisions of the intestinal walls. Inulin decreases this ammonia content of the large intestine;
- d) Improves absorption of minerals (Ca, Mg, etc.) in the large intestine;
- e) Stimulates the immune system by developing the beneficial bacteria to become the predominant genus in faeces, and consequently by reducing the pathogen bacteria.

Applications:

For all monogastrics and pets, in the order of 0.1 to 1.0% Frutafeed in the feed formula.

### B. TECHNICAL INFORMATION

Presentation:

Frutafeed is a white powder, lightly sugared. Inulin in powder <100µ: only used in dry products

Composition:

- Granule size: Powder <100µ
- Hydroscopic: Absorbs humidity. Should be kept in closed packaging and in a dry place.
- Resistibility to high temperature: No alteration of inulin chains at temperature of 150°C during 15 minutes.
- Calorific content (on DM.): 1 kcal/g

Packaging:

20 kg net polyethylene - filmed multi-layer paper bags, 960 kg net pallets (1.20x1.20x1.80 m)

### GMO INFORMATION

In recognition of EU Directives 1829/2003/EC and 1830/2003/EC, we inform that this product, to the best of our knowledge and belief:

- Is not produced from genetically modified organism.
- Does not contain ingredients produced with genetically modified organism.
- Does not require labelling as containing or being produced from/with materials/processing aids containing genetically modified organism as defined in the above mentioned directives.

Therefore, no labeling according the regulations (EC) 1829/2003 and 1830/2003 will be needed necessary.