

PROMUTASE 200™



*Raw material
for animal feed*

- A vegetable source of SOD

- A double protection of PROMUTASE 200™

- Bioavailability of PROMUTASE 200™

- Examples of applications

- Decrease of milk inflammatory cells

- Anti-stress action

A vegetable source of SOD

PROMUTASE 200™ is a concentrate of lyophilized Cantaloupe melon juice naturally rich in antioxidant actives, in particular superoxide dismutase (**SOD**). The raw material, extracted from melon pulp, is an hygroscopic lyophilized powder produced by the company BIONOV, France.

For an optimal use of **SOD** in animal feed, active materials are protected against destructive effects of the digestion and high temperatures.

Description

Appearance : powder

Colour : pale yellow

Content of SOD :

2 600 000 UI/kg

Nutritional analysis :

- Proteins : 9,5 %

- Lipids : 16,6 %

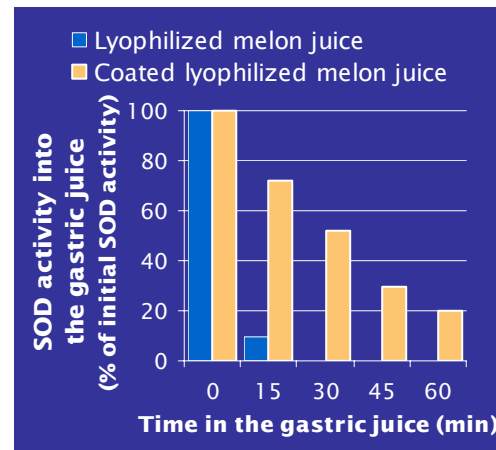
- Raw cellulose : 4,1 %

Presentation :

- 1 kg plastic flacons

- 20 kg drums

A double protection of PROMUTASE 200™



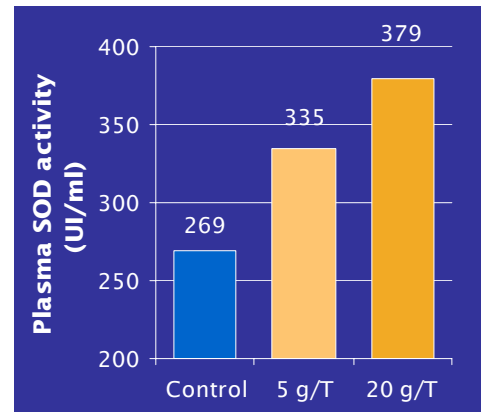
The lyophilized melon juice is coated by a vegetable fat matter and absorbed on a mineral carrier.

This double protection of **PROMUTASE 200™** prevents its destruction by the digestive tract acidity and ensures its thermo-resistance.

Its presentation on a food support makes easier its incorporation in animal feed.

Bioavailability of PROMUTASE 200™

Bioavailability of **PROMUTASE 200™**'s antioxidant enzymes, and particularly of **SOD** has been evaluated by its administration in pig feed at two different doses : 5 g/T equivalent to 0.3 UI SOD/kg/d and 20 g/T equivalent to 1.2 UI SOD/kg/d. The results of the study show that **PROMUTASE 200™** permits an increase of the plasma **SOD** activity by 25 to 40%.



Examples of applications

The applications of **PROMUTASE 200™** are those of **SOD**. It is the new arm against all oxidative explosions and their consequences. For example, there are oxidative stresses induced by inflammations, leading to embryo mortalities, existing during the parturition period, endured by newborns during intense exercises, during temperature variations, following transports or changes in living conditions, as well as oxidative stresses reducing the conservation time of the meat.

Applications

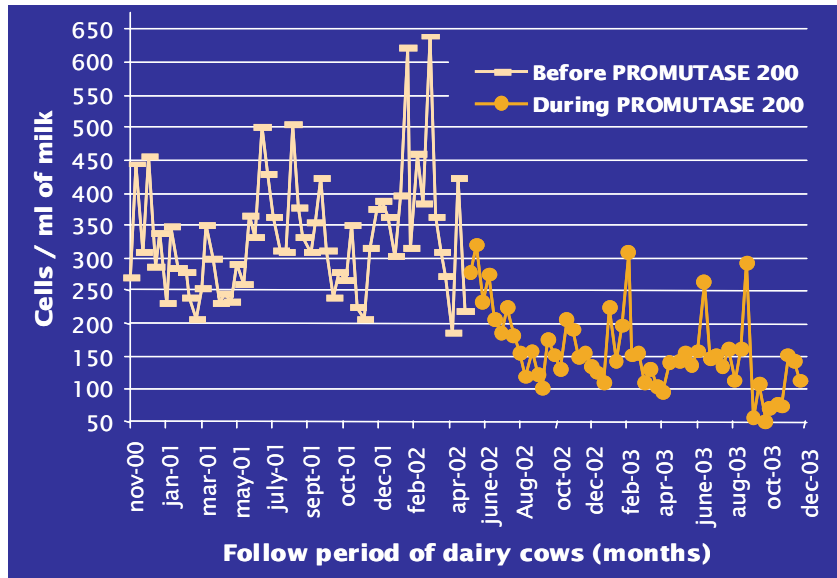
Oxidative stress associated with

- inflammations
- stress in farm
- intensive efforts

Recommended doses :

- 20 to 40 g/T of feed

Effect on cells of dairy cow mixed-milks



The aim of the study is to prove the efficacy of **PROMUTASE 200™** on the lasting drop of the level of milk cell countage. A 35 dairy cow herd receive in its feed 50 mg of **PROMUTASE 200™** per day and per cow for 18 months. URCILL, the official French control organism, carries out every month the countage of mixed-milk cells in milk tanks. As soon as the distribution of **PROMUTASE 200™** is started, URCILL's countage shows a decrease of the milk inflammatory cells –around 60%. The absorption of **PROMUTASE 200™** lowers the milk inflammatory cells.

François DESBORDES Docteur Vétérinaire, France.

Anti-stress action & weaning

The weaning of animals corresponds to a stressful situation leading to an oxidative stress at the cellular level marked by the increase of certain pro-inflammatory cytokines able to modulate the cellular response to stress, and in particular, the expression of stress proteins (HSP) and NO synthase (NOS). The effect of **PROMUTASE 200™** on the decrease of weaning-linked stress has been tested on piglets at two doses : 5 g/T equivalent to 0.3 UI SOD/kg/d and 20 g/T equivalent to 1.2 UI SOD/kg/d. The results have shown that **PROMUTASE 200™** permits to significantly decrease stress markers linked to piglet weaning –more than 50%.

Jean-Paul LALLES et Jean Claude DAVID – INRA UMRVP - Domaine de la prise, 35590 SAINT-GILLES, France. Dominique LACAN – BIONOV - 84000 AVIGNON, France

Nota

The analytical specifications warranted are only those mentioned on the certificate of analysis supplied with each delivery of the product.

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