ANTIOXIDANT AND PERFORMANCE SUPPORT

MELOFEED is a unique premixture of feed additive designed to fight against oxidative stress

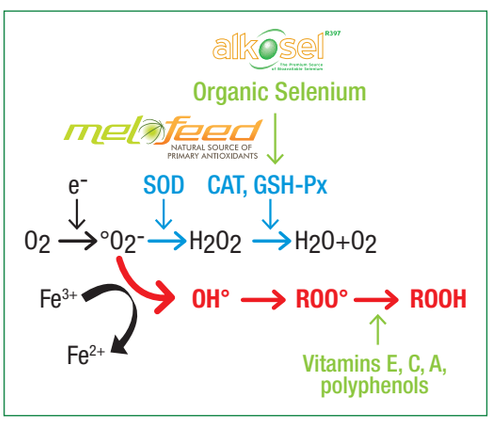
MELOFEED is a freeze-dried melon juice concentrate naturally rich in Superoxide Dismutase (SOD = min. 2.6×10^6 IU/kg) and catalase (both primary enzymes of the antioxidant defense system).

MELOFEED is the unique marketed source of natural vegetable SOD, exclusively distributed by Lallemand for animal nutrition applications. SOD is the only enzyme to have dismutating superoxide activity.

MELOFEED is manufactured by Bionov from a proprietary variety of melon (*Cucumis melo L.*), non GMO, containing guaranteed high levels of SOD.

MELOFEED works in synergy with ALKOSEL^{R397} to improve antioxidant defenses

- Reactive Oxygen Species ($O_2^{\circ-}$, OH°) are highly reactive oxygen-based biochemical components, produced during physiological processes, such as cellular respiration and immunity. These ROS play many important roles in cellular signaling and functioning. However, when ROS are produced in excess, they induce oxidative stress and damages to cell components (lipids, proteins, DNA).
- A primary antioxidant enzymatic chain (Superoxide Dismutase (SOD), catalase, glutathione peroxydase), turns the ROS into less harmful molecules (H_2O_2). The SOD ingested by **MELOFEED** is able to induce endogenous expression of the 3 antioxidant enzymes (SOD, catalase and glutathione peroxydase): **MELOFEED** has powerful antioxidant effects by stimulating the overall first line of antioxidant defense.
- Organic selenium (**ALKOSEL**^{R397}), as a cofactor of glutathione peroxydase, potentiates the effect of **MELOFEED** by acting at the step transforming H_2O_2 into H_2O and O_2.
- The combination of **MELOFEED** and **ALKOSEL**^{R397}, which act as first lines of antioxidant defense, is therefore of primary interest in the prevention of ROS formation and in the reduction of oxidative stress.



MELOFEED

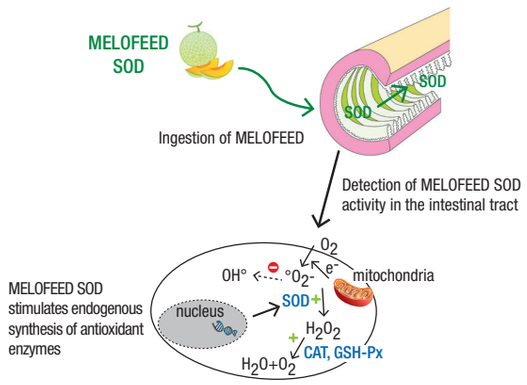
1. Stimulates antioxidant defenses
2. Supports fertility
3. Supports recovery and resistance to physical effort

melofeed NATURAL SOURCE OF PRIMARY ANTIOXIDANTS

ANTIOXIDANT AND PERFORMANCE SUPPORT

1 MELOFEED stimulates antioxidant defenses

- Promotes tissue antioxidant defenses (increased SOD, GSH-Px and catalase endogenous synthesis).
- Improves cell resistance to oxidative stress (red blood cells less susceptible to oxidative stress-induced hemolysis).

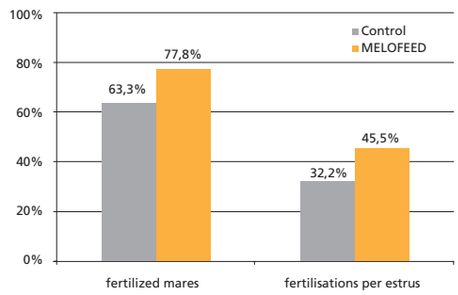


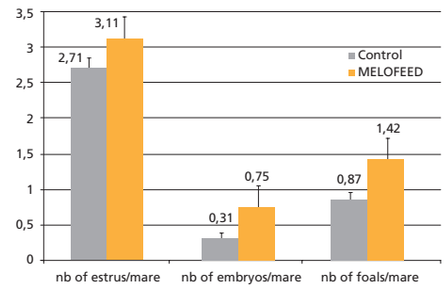
Less membrane lipids, proteins, DNA alteration

MELOFEED mechanism of action (Carillon et al., 2013 and 2014 in press : rodent model).

2 MELOFEED supports fertility

- Increases the percentage of fertilized mares and fertilisations per estrus.
- Improves the number of estrus (+ 15%), embryos and foals (+ 63%) per mare.

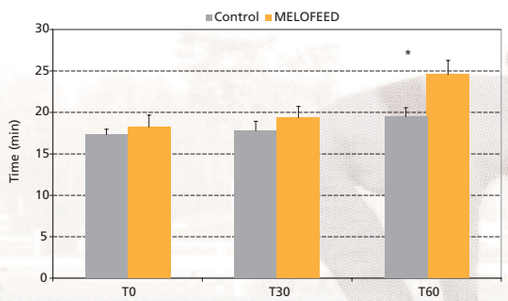




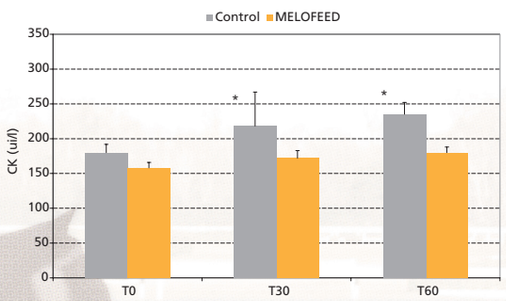
Haras M'AUREA (Landévennec), 2006: N = 36 control mares / N = 109 MELOFEED mares (during 4 months before insemination).

3 MELOFEED supports recovery and resistance to physical effort

- Increases blood resistance to hemolysis: improves muscle cells membrane protection and supports plasmatic antioxidant defenses.
- Increases horse resistance to training by decreasing cell membrane permeability (CK as a marker of muscle integrity).



Evolution of plasma resistance to haemolysis (KRL test).
N = 12 control trotters
N = 12 MELOFEED trotters before (T0), 30 and 60 days after supplementation.
(Notin et al., 2010)



Evolution of the resting plasma CK creatine kinase activity in MELOFEED and control groups (similar data for post-exercise).
(Notin et al., 2010)

Recommended inclusion rate

0.2 - 1g/horse/day.

Not all products are available in all markets nor associated claims allowed in all regions.