

## EKYRENAL +

## **RECOVERY PHASE**

#### Description

During exercise and sickness, a horse's body produces oxidizing and harmful waste products (free radicals and lactic acid), which have an impact on the liver and kidneys. Exercise also reduces the body's energy reserves. Specific nutritional support is therefore required during recovery periods to help the horse build up its energy following the production of large amounts of organic waste after exercise.

#### Purpose

EKYRENAL+ is a dietary complementary feed by AUDEVARD Laboratories. It is designed to provide horses with the nutritional support they need after exercise, if their feed is rich or when the seasons change, for example. EKYRENAL+ provides specific nutrients and specially selected plants, as well as choline and methionine.

#### Formula

Horses love the apricot flavour.

#### Our advice

Advise your customers to start EKYRENAL+ three days before a big sporting event and give for at least seven days afterwards. For horses with severe difficulty recovering, you can also advise them to use MYOSTEM PROTEC along with EKYRENAL+.

#### Daily allowance

1 measure =60 ml.

25 ml EKYRENAL+ once to twice per day, according to the horse's requirements. Shake well before use.

#### ■ Professional format

1 L bottle – (EAN 3515650900909) Sufficient for up to 40 days' use in adult horses.

5 L container – (EAN 3515650910915) with 30 ml pump dispenser - Sufficient for up to 200 days' use in adult horses.

#### **Composition per litre**

#### Additives:

• **2b- Aromatic substances**: dandelion (*Taraxacum officinale* - ext.) 33,000 mg, milk thistle (*Silybum marianum* - extract with 80 % silymarin) 23,100 mg, stevia extract CoE552 1500 mg

 $\bullet$  3a- Vitamins, provitamins and substances with analogous effect : 3a890 choline 12,000 mg, vitamin B1 3300 mg

• Amino acids and salts, and similar products: 3c307 methionine 10,000 mg

• Technology: apricot flavour 5070 mg.

#### Raw materials :

Sorbitol, monopropylene glycol, prickly pear juice (*Opuntia ficus indica*), sugar cane molasses

#### <u>Analytical constituents</u>:

Humidity 88.6 %, crude proteins 1.8 %, crude fats 0 %, crude ash 0.2 %, crude fibre 0 %, sodium 0 %

This product belongs to the complementary feed for horses category.

ADP Anti-Doping Program

Product controlled in the context of Audevard Anti-Doping Program.
Protocol details at www.audevard.com.



# PHYSIOLOGICAL CONSEQUENCES OF EXERCISE-RELATED METABOLISM AND NUTRITION IN HORSES

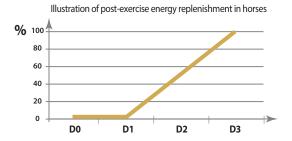
## **New literature review**

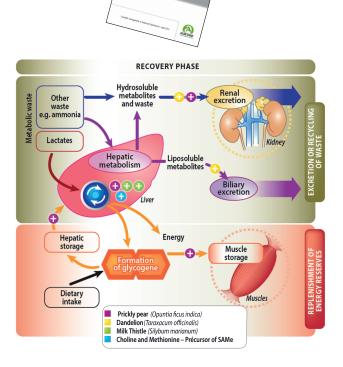
### The twofold challenge of post-exercise recovery:

- 1. Elimination of metabolic waste
- 2. Replenishment of energy reserves in the muscles and liver

Target nutrients for elimination and post-exercise recovery (see diagram opposite)

Specific challenges for horses: glycogen resynthesis much slower than in other species





## Focus on the Prickly Pear (Opuntia ficus indica)



The Prickly Pear tree (Opuntia ficus indica) is a species belonging to the Cactaceae family. Originating from Mexico, it is now grown in other continents, especially the Mediterranean basin and South Africa.

- Stimulates the elimination of waste (diuretic properties comparable to hydrochlorothiazide) (graph opposite: Bisson et al., 2010; Galati et al., 2002).
- **Protects the liver and kidneys** (Alimi et al., 2012; Moran-Ramos et al., 2012; Brahmi et al., 2011)
- Nutritional energy recovery: increases the insulin sensitivity of muscle cells, promoting energy storage (Kang et al., 2013; Deldicque et al., 2013; Van Proeyen et al., 2012)

