

Equine Health

Horses between 15 and 20 years of age comprise the largest group of the equine population and safeguarding their health and mobility is of great importance for their wellbeing and quality of life.

Veri-te™ PETS resveratrol is an ideal ingredient for use in equine health products to support age-related challenges.*

Equine health is impacted by nutrition intake

Stiffening of joints, loss in vitality and diminishing quality of life are the consequences of oxidative stress in horses due to aging. Resveratrol promotes a normal inflammatory response and combats oxidative stress¹ in horses.²³ Erythrocyte sedimentation rate (ESR), the biomarker of most horse trainers to check the health status of their horses,⁴ can also be reduced via resveratrol administration.



Resveratrol scavenges reactive oxygen species and stimulates antioxidant defense systems

The objective of this study was to evaluate the influence of age and lameness on the antioxidant levels in horses administered a resveratrol supplement or placebo. Blood samples were collected from each horse before supplementation and at each week of this 4 week experiment.¹

- ◇ Resveratrol supplementation reduced lipid peroxidation and the level of malondialdehyde, two indirect indices of oxidative stress
- ◇ The antioxidative enzymes superoxide dismutase and catalase, which neutralize the reactive oxygen species hydrogen peroxide and the superoxide radical, were more activated than in the placebo group

16 horses, both sexes, 15-22 years, 350-450 kg, lameness grade 3, 2x15 g first half and 2x30 g second half of treatment resveratrol supplement/d or placebo, 4 weeks

Resveratrol reduces inflammatory intermediaries, which may help aging horses to move with greater ease

This study investigated inflammation biomarkers in horses with age-related declines in joint health and mobility before and after consumption of a resveratrol supplement.²⁵

- ◇ The concentration of the tumor necrosis factor-alpha (TNF-α) was reduced
- ◇ Erythrocyte sedimentation rate improved
- ◇ Reduced the amount of serum protein detected
- ◇ Reduced the levels of creatine kinase and glucose responsible for deleterious effects
- ◇ Improved redox balance under acidic and low oxygen conditions

16 Equine Metabolic Syndrome (EMS) horses, both sexes, 15-22 years, 350-450 kg, lameness grade 3, 2x15 g first half and 2x30 g second half of treatment resveratrol supplement/d or placebo, 4 weeks

Resveratrol mimics protective mechanisms induced by caloric restriction and alleviates the challenges of EMS

The effect of a resveratrol supplement on EMS, which is characterized by the imbalance of several physiological parameters related to glucose and fatty acids metabolism, was investigated. The resveratrol therapy improved both metabolic and inflammatory biomarkers in EMS horses.⁶

- ◇ Improved the energy expenditure (leptin ↓, insulin ↓)
- ◇ Supports healthy blood glucose levels (glucose cellular uptake ↑)
- ◇ Levels of anti-oxidation and anti-inflammation biomarkers improved (ROS ↓, TNF-α ↓, IL-6 ↓)
- ◇ Sustains healthy levels of triglycerides and cholesterol (triglycerides ↓, cholesterol ↓)

15 EMS horses, both sexes, 15± 5 years, resveratrol supplement/d or placebo, 6 weeks

References

Evolve is committed to supporting clinical trials and research studies to further understand the important benefits of resveratrol on companion animal healthy living and aging.

Below is a list of selected published studies supporting beneficial effects of resveratrol for horses.

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3. Watts AE, Dabareiner R, Marsh C, Carter GK, Cummings KJ. A randomized, controlled trial of the effects of resveratrol administration in performance horses with lameness localized to the distal tarsal joints. *Journal American Veterinary Medical Association*. 2016;249(6):650-659
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5. Ememe MU, Abdullahi US, Sackey AKB. Modulatory Effects of Resveratrol Supplementation on Inflammatory Markers in Ageing and Lame Horses. *Journal Animal Veterinary Adv.* 2015;7(4):67-72
6. Adams AA, Siard MH, Reedy SE, Stewart C, Betancourt A, Sanz MG and Horohov DW. Identifying the role of a "caloric restriction mimetic", resveratrol, in Equine Metabolic Syndrome and its implications for targeted therapy. *Journal Equine Veterinary Science*. 2013;33(5):346-347

resveratrol re-imagined™



Veri-te™ PETS resveratrol, the ingredient of choice to develop your business

A perfect solution for your product development needs to target joint and bone, cognitive, cardiovascular or metabolic health.

PURE

>98% pure *trans*-resveratrol

RELIABLE

Consistent from batch to batch

SUSTAINABLE

Veri-te™ PETS resveratrol is sustainably produced in the EU, using an innovative yeast fermentation process

SAFE

- ◇ NO emodin
- ◇ NO polycyclic aromatic hydrocarbons (PAHs)
- ◇ NO pesticides or herbicides
- ◇ NO aflatoxins
- ◇ NO unwanted solvents (toluene, methanol, diisopropylamine (DIPA))
- ◇ NO toxic heavy metals

Regulatory & Quality Status

- ◇ Made under FSSC 22000 / ISO 22000 food standards
- ◇ Made under cGMP and HACCP based food safety conditions



About Us

Veri-te™ PETS resveratrol is produced by Evolve, a Swiss biotech company focused on the research, development and commercialization of products based on nature. We have leading businesses in Flavors and Fragrances, Health Ingredients and Health Protection. Evolve's employees are dedicated to developing the best ingredients that can contribute to health, wellbeing and sensory enjoyment. Find out more at www.evolve.com.

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We are more than an ingredients provider, we are a reliable, end-to-end, innovative partner powered by experts to deliver science-backed nutrition and health products and quality customized solutions.

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