

EXCENTIAL SILENIUM 4000

The new generation of organic selenium



Selenium is an essential trace element for both animals and humans and it plays a crucial role in maintaining an optimal health status. Selenium sources added to the animal diet can be categorized as organic or inorganic. Organic selenium has an important benefit in animal nutrition, specifically selenomethionine which is metabolically the most effective organic form of selenium.

WHY ORGANIC SILENIUM

Selenium is a key nutrient in animal nutrition and is crucial for optimal antioxidant status and immune function. Selenium in animal diets can be supplied via feedstuffs or via supplemented selenium. Selenium from feedstuffs is predominantly present in the form of L-selenomethionine, which is the natural form of selenium in plant and animal protein. The supplemented selenium can be either in an organic or an inorganic form. Organic selenium has an important benefit compared to inorganic selenium due to the fact that selenomethionine is utilized by the body as an amino acid (in same way as methionine) and is built into animal protein tissue. Via this metabolism, organic selenium in the form of L-selenomethionine is able to build up selenium reserves in the body, which ensures a good

**L-selenomethionine is
the natural form of selenium
in plant and animal protein**

selenium and antioxidant status at all times and secures efficient transfer of selenium to offspring via placenta, milk and eggs.

All selenium is available in the most effective organic form

SELENOMETHIONINE IN THE METABOLISM

- In the metabolism there is a difference between selenomethionine (SeMet) and all other forms of selenium
- Within organic selenium, the level of SeMet is the actual value of interest (Se storage, reserve, transfer to offspring and enrichment of animal products)

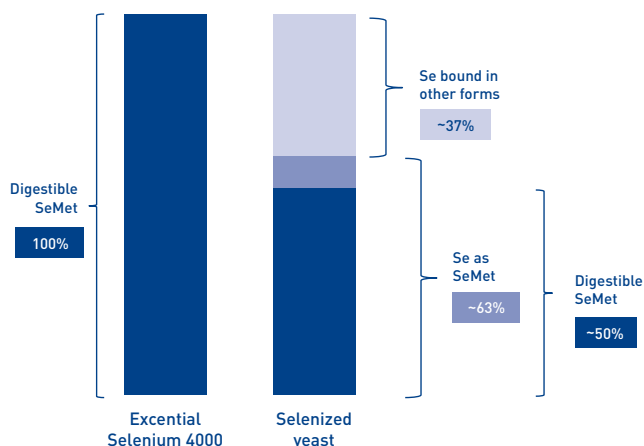
SELENIZED YEAST VERSUS THE NEW GENERATION OF ORGANIC SELENIUM

Selenized yeast:

- Contains part of Se as SeMet, part of Se in other forms
- Review of commercial available samples shows variation between producers and batches

New generation organic selenium, Excential Selenium4000:

- No variation in concentration
- Provides all selenium in form of L-selenomethionine
- Dust free product



BENCHMARK VALUES

Units of measure - mg/L, nmol/L, $\mu\text{mol/L}$

- The selenium content in milk is an easy way to assess the selenium status of a herd
- Sampling is done at the milk tank on the farm, allowing an estimation of overall selenium status of the herd

Thresholds in $\mu\text{mol/L}$:

- Less than 0.12 $\mu\text{mol/L}$ defines a deficiency status
- Between 0.12 and 0.28 $\mu\text{mol/L}$ is marginal
- Greater than 0.28 $\mu\text{mol/L}$ is adequate
- The amount of selenium in the milk is directly proportional to the organic selenium content in the feedstuffs of cows

EXCENTIAL SELENIUM 4000

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- EU authorization for use in all animal species
- No variation in concentration
- All selenium in most effective organic form
- Dust free product

