

# A NOBLE FORM OF HIGHER POTENCY NATURAL NANO-SELENIUM TRUESEL NPs

# Superior GREEN technology

**TRUÈSEL~NPs** is SeNP, a component of the enzyme Glutathione peroxidase or GSH-Px, is essential for protecting cellular membranes from being destroyed. GSH-Px destroys the peroxides before they have a chance to cause membranes damage. GSH-Px concentration and activity is directly related to the selenium status of the animal.





## **Mode of Action**

- \* High biological activity and good absorptive ability due to the interaction between the nanoparticles and -NH2, C=0, -C00, and -C-N- groups of proteins.
- \* Reduces the levels of thiobarbituric acid reactive substances (TBARS) in plasma, indicating a decrease in lipid peroxidation.
- \* Nano Se can directly scavenge free radicals.
- \* 100% bioavailability due to nano form.

# Nano-Selenium (SeNPs) Supplementation

Nano-selenium particles less than 100 nm have greater antioxidant activity than larger particles. Nano-Se particles of size 5-200 nm can directly scavenge free radicals in vitro depending on their size.

TRUÈSEL~NPs provides higher bioavailability for Selenium deposition than organic Se-yeast or inorganic Selenium products and Generally Recognised As Safe (GRAS) and therefore most appropriate as feed supplement.

- TRUÈSEL~NPs is biosynthesis of nano-Se by soil bacterium obtained from a proprietary strain of Pseudomonas putida, to synthesize nano-particles of elemental Se (nano-Se) from selenite.
- Pseudomonas putida strain of **TRUÈSEL~NPs** is safe non-pathogenic bacterium.
- Transmission Electron Microscope (TEM) shows that nano-Se particles synthesized by soil bacterium Pseudomonas putida strain of TRUÈSEL~NPs have a size range of less than 100 nm.
- Higher bioavailable nano form allowing animals to fulfil their genetic potential.
- TRUÈSEL~NPs provides animal with better oxidative stress protection and immune response.









**BEEF & DAIRY** 

**POULTRY** 

**SWINE & PIGLET AQUACULTURE** 





#### Improves egg, meat and milk quality

Improve egg production and meet freshness and shelf-life.

Increase Se content of muscle as much as 2.5 times, improve meet tenderness and increase colouration in the meet enhancing appeal.

Increase in natural selenium content of the milk and lower natural somatic cell count (SCC) in the milk.

#### Improves fertility and hatchability in breeders and prevent reproductive stress and disorders

**TRUÈSEL~NPs** protects fatty acids from oxidizing. Essential fatty acids can easily oxid ze and become rancid. Sperms are mainly composed of essential fatty acids.

TRUÈSEL~NPs has protective and beneficial effects on semen quality.

TRUÈSEL~NPs is also needed for production of testosterone.

Better hatchability of the eggs and survival rate in chicks.

TRUÈSEL~NPs affect reproductive maturity and growth performance of fishes and also farm animals.

#### Subsequent reduction in Oxidative stress in the animal leading to

Possible symptoms in affected animals

Poultry: Prevent diseases like Exudative diathesis (accumulation of fluid throughout the body, particularly in abdomen and feet),

Nutritional muscular dystrophy, poor performance, pancreatic atrophy, encephalomalacia (Crazy chick disease),

Minimises Gangrenous Dermatitis (Wing rot), Reduce acute death syndrome. Improves weight of bursa, spleen and thymus.

Improve performance in high temperatures & high stocking density.

**Cattle:** Prevent White Muscle Disease (WMD), retained placenta, cystic ovarian disease, dystocia and anaemia, insufficient weight.

**Swine:** Prevent Hepatosis dietetic (degeneration of the liver), mulberry heart disease, nutritional muscular dystrophy. Pigs are more susceptible to swine dysentery when selenium deficient.

Horses: Generalized muscle weakness, emaciation, anorexia, Orapid heart rate and diarrhoea.

#### **Physical Characteristics**

Colour Odor White to light Beige Characteristic odor

Purity

No foreign matter

Appearance

Powder

## Recommendation for Use:

Poultry, pigs & aqua: 50-150 Gm/MT (equivalent to 0.1-0.3 ppm of Se in a complete feed).

Dairy/Beef cattle: 0.1-1.50Gm/ head/day (equivalent to 2-3mg Se/head/day).

Shelf Life : 24 months from Date of Production.

**Packing** 

: 2.5 Kg x 10

Storage

: Keep in cool, dry place, sealed and away from sunlight.

#### A Product of :





EURO Certification (UK)Ltd.



## TRÈSBIEN BioSynth Pvt. Ltd.

B-204, 2nd Floor, Turning Point, C.H.S. Ltd. Sector-1,

Vasant Nagri, Vasai (East), PIN: 401208, Mumbai, INDIA

Email: admin@tresbienbiosynth.com Web: www.tresbienbiosynth.com

Customer Care No: +91 7900171425









#### **Thermostable**

**TRUÈSEL~NPs** is fully stable under various feed processing conditions and is thermostable at the temperature to which feed is exposed during pelleting (70° C to 90°C).

