



# ESPERMAPLUS

Sperm improver for  
boars



## The catalyst of semen production

Nutritional complement specially designed to guarantee the optimum intake of the essential micronutrients, vitamins and amino acids necessary to maximize sperm production in boars of high genetic potential.

## Action range

The main problem we found in boars is:

### 1. Maintenance of semen quality along the time

Boars are subject to demanding collection frequencies along time, very often under diverse environmental conditions that usually affect semen production (productive stress).

### 2. Recovery of semen quality under stress situations

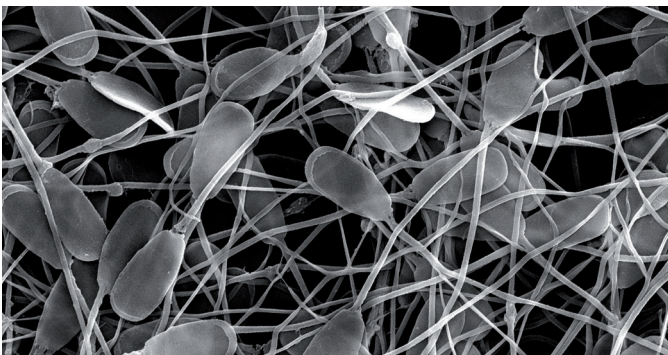
Semen quality is affected by different conditions and handlings as vaccination periods or temperature increases.

Recovery after these alterations may be complicated and very often ends with the early culling of the boar.

### 3. Feet and leg soundness

Boars are heavy animals, which affects their feet and leg soundness. This is the main cause of early culling of males that are still productive due to its negative influence on mount and semen quality.

Excessive feeding or a nutritionally unbalanced diet (excessive in manganese or deficient in calcium, phosphorus or Vitamin D) increases the risk of having overweighted boars or liable to suffer from feet and leg soundness problems.



## Why is ESPERMAPLUS necessary?

Boar nutrition must be directed to obtaining the maximum production of spermatozoa, of optimum quality and maintained in time as long as possible, aimed at making the most of males of high genetic value.

Our objective is obtaining highly productive boars, for which we must join feeding (administering the adequate amount of fodder at each moment) and nutrition (guaranteeing the intake of all the necessary nutrients as well as their bioavailability to support the different metabolic processes).

Recent researches affirm both the quantity of food and of nutrients can influence the amount of spermatozoa produced. However, increasing the daily ration of the boar is not a solution because overweight affects the feet and leg soundness of the animals.

It is profitable to invest in the welfare of our boars and in guaranteeing the fulfillment of the nutritional needs required for maximum sperm production along their productive life, trying to make it as long as possible.

Feeding boars with nutrient deficient fodder may result very costly because it influences semen quality, which determines the total reproductive capacity of the boar.

The study of the nutritional products for boars available in the market has allowed us to detect the existence of a need. At present, the existing products merely use the nutritional formula for highly productive sows, disregarding the fact that the necessities of males and females are very different.

We reach the same conclusion when we analyze in depth the dosage and duration of treatments, which recommend their application for days, weeks, alternate weeks, alternate days... without a clear criteria.

It is necessary the development of a product specifically designed for boars of high level that guarantees the intake and bioavailability of the vitamins, amino acids and oligoelements necessary for an optimum reproductive function as well as exclusive molecules with potential impact on semen quality and quantity. ■

## What makes ESPERMAPLUS a specific product?

A studied and precise formulation with ingredients of high bioavailability and of organic origin including:

### VITAMINS

Essential micronutrients for the normal maintenance of physiological functions as growth, vital functions, health and reproduction.

The organism is incapable of producing vitamins (except for vitamin D), so they must be ingested complementarily on a daily basis.

- **Liposoluble vitamins**

Natural antioxidants and libido enhancers.  
Vitamins A, D, E, K

- **Water-soluble vitamins**

Increase metabolism, immunity and reduce stress.  
Vitamins B1, B2, B6, B12, C  
Biotin  
Folic Acid  
Nicotinic Acid  
Pantothenic Acid  
Colin

- **Biotin**

Important for feet and leg soundness, acting directly on hoof resistance.

### SOY CONCENTRATE

Concentrate of vegetal origin protein of high quality and bioavailability that guarantees an optimum intake of the essential and non-essential amino acids necessary for high level production.

### OMEGA3 FATTY ACIDS

The membrane of swine spermatozoa is specially rich in phospholipids. Espermaplus is the only nutritional complement formulated with high doses of Omega3 Fatty Acids, natural precursor of phospholipids.

Conventional diets are poor in this type of molecules so their addition to the diet will improve sperm production and motility per ejaculate, as well as increasing the percentage of normal acrosomes.

### CHELATES

Favor the absorption, distribution, use and assimilation of minerals (zinc and copper) by the boar organism during the absorption of nutrients in digestion.

### AMINO ACIDS

At present most cereal-based diets are deficient in amino acids, which are necessary for protein synthesis (and thus of spermatozoa).

Essential amino acids (lysine, methionine, threonine, tryptophan) cannot be naturally synthesized by pigs so its supplementation as complementary intake in the diet of the boar is advisable.

Amino acids also improve the capacity of recovery, allowing the maintenance of the collection rhythm (a high collection rhythm).

- **L-Carnitine**

Intervenes in the energetic metabolism.  
Different researches have proved it improves sperm production and motility under stress situations or increases of production rhythm. Its supplementation in boars of high genetic value is therefore recommendable.

### OLIGOELEMENTS

Essential for correct semen production; Iron, copper, zinc, manganese, iodo, selenium. Boar diets can be different in oligoelements due to absorption problems.

Espermaplus contains the main oligoelements (zinc, selenium and copper) in organic form and an optimized mineral complement composed of iron, copper, manganese and iodo, which guarantees the correct intake.

- **Zinc**

Zinc has a fundamental role in sperm production and maturation, acting directly on Leydig cells, and intervenes with calcium and phosphorus in bone and muscle maintenance, preventing feet and leg soundness problems.

- **Selenium**

Oligoelement specially important for boars with direct influence on the formation, development, functionality and fertility of spermatozoa, specially on the formation and maturation of tails.

Low selenium diets reduce motility and increase the percentage of abnormal spermatozoa. Espermaplus exclusively presents Selenium of organic origin and high bioavailability provided by their inclusion in yeasts (*Sacharomycies cervesidae*).

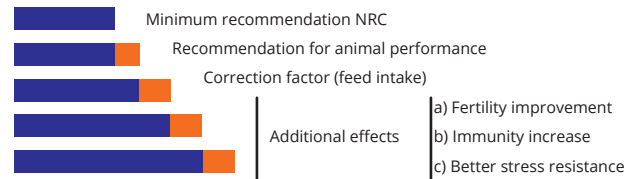
## Indications

Espermaplus is designed to be a tool for insemination centers to prevent the most frequent problems and guarantee optimum semen production.

### Feeding optimization

Nutritional needs: vitamins, aminoacids-proteins, minerals-oligoelements, fiber, energy (fats), water, others (L-Carnitine, Omega-3 fatty acids)

Swine recommendations NRC (1998)



## Benefits

The most **complete** in the market

**Easy** handling and dosing

Makes a correct **libido** expression easier, enhancing it

Contributes to obtain an **optimal semen quality**, both in quality and quantity

Its effect on libido, sperm quantity/quality and feet and leg soundness **reduces reposition rates**

### Specially recommended for:

- Boars of high genetic level
- Periodic toning of boars
- Boars under stress situations
- Young boars in growth and starting production
- Weak and/or convalescent boars

### Dosing and treatment

30 gram\* product per fodder kg

**30gr/kg**

\* Minimum treatment from one week per month

### Commercial presentation

#### Format: 3 kg sachets

- Die-casted handle and zip closure
- Contains spoon for more comfortable dosing
- Boxes of 5 bags

#### Format: 25 Kg bag

