



**FIBROUS-CELLULOSE FIBRAFEED<sup>®</sup>**

WE NURTURE THE WELL-BEING OF YOUR PIGS

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## ABOUT US: LA.SO.LE EST

### TECHNOLOGY THAT COMES FROM NATURE

La.So.Le. Est SpA, Pavia di Udine is a company that has been able to combine nature and technology, thanks to its experience. La.So.Le. focuses its work on ecology by recycling natural raw materials and creating new uses in various sectors such as the animal husbandry sector. Only the deep-rooted experience and love for the land could give life to a business like La.So.Le.

### QUALITY IS A FAMILY TRADITION

From 1962 to today, the Garzitto family has marked each milestone on its long road to success that has led to it gaining a prominent position among the leading Italian and European producers of technical wood flour for industry and wood shavings for animal husbandry. This consolidated success has been built on the entrepreneurial spirit of the owners and their constant and uncompromising attention to quality at all levels of the production process: from procurement to processing and all the way up to delivery. Our growth has been steeped in company values: seriousness, reliability and a "family" customer service. These values are stronger today than ever before in the company's top management, now in its third generation.

[www.lasole.it](http://www.lasole.it)



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## FIBRAFEED®. FIBROUS-CELLULOSE ACCORDING TO LA.SO.LE.

Dietary fibre or roughage is the portion of plant-derived food that cannot be broken down by the stomach and small intestine. Nevertheless, it is partially digestible by the colon. Its presence in the diet of pigs exerts functional and metabolic effects, which are fundamental for their health.

Fibrafeed lignocellulose is made up of **insoluble crude fibre with over 70% of dry matter** and is completely free of mycotoxins. Fibrafeed lignocellulose contains mainly cellulose, hemicellulose and lignin that are insoluble and inert fibres of which only tiny quantities ferment in a pig's large intestine. Therefore, introducing Fibrafeed fibrous-cellulose in the complete feed formulation makes it possible to obtain a crude fibre content of 8% in an economic, natural and hygienic way, as required by the regulations for pig welfare.

Fibrafeed is produced by La.So.Le. using special **new-generation machinery** that excludes any type of chemical action on the fibres, which, being obtained from plant and controlled raw materials only, are ground and fibrillated to give the highest quality lignocellulose. The production process consists of separating and grinding the fibrocellulosic material using only mechanical actions to obtain fibres down to their finest structure. Thanks to this particular process, the fibres acquire morphological properties that significantly increase their water-binding capacity.

Furthermore, unlike any other product linked to agricultural cycles (such as beets, corn and wheat), Fibrafeed does not need to be harvested and stored as would be required of any given crop; it is **produced as and when needed** and therefore **available any time of year**.

### WHY CHOOSE FIBRAFEED®:

- It is mycotoxin-free
- It has a crude fibre content that is 4-5 times higher than traditional dietary fibres
- It has an excellent ability to absorb and retain water compared to traditional sources of raw fibre
- It is produced from controlled raw fibres
- Production is ISO 9001 and HCCP-certified
- It is available all year round

## PIG FEED WITH FIBRAFEED®: ZERO RISKS, MANY ADVANTAGES

Fibrafeed lignocellulose is specifically recommended as a dietary supplement for gestating and lactating sows, as well as for weaning piglets.

In ad libitum feeding of **pregnant sows**, Fibrafeed lignocellulose prolongs the feeling of satiety thanks to the high water-absorbing capacity. Fibrafeed accelerates the intestinal passage time, therefore, prevents constipation; it does not hinder the digestibility of proteins and improves the general reproductive capacity.

Fibrafeed is also extremely useful in piglet feed because it naturally binds to the acid present in the stomach of the piglet and protects them from the pathogens of diarrhoea.

### **Recommended doses for the best nutrition:**

- 2-3% in ad libitum feeding of pregnant sows
- 1-2% in piglet breeding

### **IMPROVES FAECAL CONSISTENCY**

Fibrafeed has an innate ability to absorb water, therefore it increases the viscosity of sow faeces. The advantages are two-fold; barn cleaning is made easier and therefore, the risk of disease is considerably reduced as the accelerated intestinal passage reduces the chances of constipation in sows before farrowing and consequently the risk of MMA (Mastitis, Metritis and Agalactia).

### **REDUCES THE RISK OF MMA**

Substantially, Fibrafeed does not contain nutrients and quantities of elements such as calcium or phosphorus. For this reason, it can be added to the normal feed ration already calculated for pregnant sows, reducing the risk of MMA (Mastitis, Metritis and Agalactia).

### **DOES NOT CONTAIN MYCOTOXINS**

Fibrafeed is totally free of mycotoxins. The abortion rate caused by mycotoxins is closely linked to the use of an uncontrolled source of crude fibre. Fibrafeed lignocellulose, on the other hand, **eliminates any risk of mycotoxins being present in the ration.**

### **AVOIDS OVER FEEDING**

**Fibrafeed's water-binding capacity is over 450%.** No other crude fibre that is commonly used has this feature: wheat semolina absorbs around 190% water, whereas corn absorbs about 270%, and sugar beet pulp reaches 340%.Fibrafeed naturally swells in the sow's stomach giving the sow a **long-lasting feeling of satiety**: it avoids overfeeding (with the ad libitum system), effectively eliminates the risk of adiposity and decreases the caloric value of the ration, guaranteeing the animal's health.

### **IT GUARANTEES A HEALTHY DIET BECAUSE OF IT PURE PLANT ORIGIN**

Fibrafeed is **a completely natural product, free from any animal-based ingredients.** In systems of limited nutrition, the positive effects are best manifested by adding from 1 to 2.5% of fibrous-cellulose to the ration. It is important to ensure that animals drink enough water, especially during hot periods. When weaning piglets, fibrous-cellulose can increase the intestinal villous height and regulate inflammatory markers to prevent diarrhoea with an overall positive effect on their health.

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# COMPARISON OF FIBRES

## SOLUBLE FIBRE

- Slows down intestinal passage
- Increases viscosity of faeces
- Retains water according to its structure
- Is mainly fermentable
- Reduces organ development in early weaned piglets

## INSOLUBLE FIBRE

- Accelerates intestinal passage
- Reduces the proliferation of pathogens
- Contrasts intestinal stasis associated with anorexia in piglets
- Increases ingestion in piglets with low performance
- Non/hardly fermentable in the large intestine



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## FIBRAFEED® TECHNICAL DATA SHEET

### DESCRIPTION

Simple fibrous-cellulose feed of natural plant origin obtained from defibrating, or grinding, and subsequent fibrillation.

### COMPOSITION AND CHEMICAL-PHYSICAL PROPERTIES

- Colour: Beige
- Structure: Fibrous
- Average particle size: From 150 µm to 350 µm
- Ashes (800 °C): 0.5 % max Method: AOAC 942.05
- pH 4.5 – 6.5
- Humidity: 11 % max

LA.SO.LE. EST SpA is registered as an approved feed business operator according to Article 9 of Regulation (EC) 1831/2003 establishing the requirements for feed hygiene. Registration n° IT000317UD

### CHEMICAL COMPOSITION

Parameters	Value	Unit of measure	Method
Neutral detergent fibre (NDF)	86,8	g/100g	FIB002U.ZO
Neutral detergent fibre (NDF)	94,1	g/100g ss	FIB002U.ZO
Acid detergent fibre (ADF)	75,0	g/100g	FIB003U.ZO
Acid detergent fibre (ADF)	81,3	g/100g ss	FIB003U.ZO
Lignin to acid detergent (ADL)	23,7	g/100g	LIG001U.ZO
Lignin to acid detergent (ADL)	25,7	g/100g ss	LIG001U.ZO
Residue	0,3	g/100g	AOAC94.05 Reg. CE 152/2009 27/01/2009 GU
Raw proteins	0,6	g/100g	CE L54 26/02/2009 ALL III MET C - Reg. CE 152/2009 27 /01/2009 GU
Raw oils and fats	2,4	g/100g	CE L54 26/02/2009 ALL III MET H - PROC B - Reg. CE 152/2009 27 /01/2009 GU
Raw fibre	63,3	g/100g	CE L54 26/02/2009 ALL III MET I Reg. CE 152/2009 27 /01/2009 GU
Dry residue	92,2	g/100g	CE L54 26/02/2009 ALL III MET A
Dioxins	<0,04	pg/g 12% umidità	EPA 1613B 1994 Reg. CE 152/2009 27/01/2009 GU
Humidity	<11	g/100g	CE L54 26/02/2009 ALL III MET A

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