

SPC Wheat Defence

SPC-wheat Defence is a product made of processed wheat which stimulates the piglets to increase their own endogenic production of Protein antisecretory factor (Protein-AF). The development of SPC-wheat is based on innovative Swedish research regarding Protein-AF which started in the late 1980's. Protein-AF is produced by the body itself and has an anti-secretory and antiinflammatory effect. The product is patented and trademark protected.

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Protein-AF was identified by scientists at the University of Gothenburgh and was named antisecretory factor (AF) due to its anti-secretory properties in rats intestine being challenged by cholera toxin. Protein-AF is activated by different bacteria toxins but also by specifically composed diets. The SPC concept has been developed in cooperation between Lantmännen and the Sahlgrenska University Hospital in Gothenburgh.

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Target animal:	Piglets before and the first weeks after weaning.
Indications:	For preventive use in diets for piglets aiming to reduce the frequency of post weaning diarrhea and counteract the effects of toxin producing bacteria on production performance.
Regulatory status:	Feed ingredient.
Ingredient:	Specially processed kernel or flour made of wheat.
Dosage:	Five percent in piglet's diets before, during and the first two weeks post weaning.
Important:	The Protein-AF inducing diet with SPC wheat must be introduced at least 10-14 days prior to weaning in order to stimulate the endogenic production of the protecting Protein-AF.
Delivery:	Whole kernels in bulk or big bag. Flour in small or big bags, or bulk.
Instructions for use:	Can be used as a feed ingredient and replace wheat.
Storage and temperature:	12 months at dry conditions in room temperature or below.
Contraindication:	None.
Nutritional value:	As for wheat.

Clinical studies:

There are large variations in Protein-AF status between individuals. Protein-AF is transferred to the piglet via colostrum and milk and the the level in colostrum has been related to the frequency of neonatal diarrhea. Moreover, the Protein-AF status of piglets is related to diarrhea also after weaning. SPC-wheat in the diet stimulates the Protein-AF activity and reduces the frequency of scouring but has also been shown to improve performance in clinically healthy piglets.

Published studies:

- Lange, S., Martinsson, K., Lönnroth, I. and Göransson, L. 1993. Plasma level of antisecretory factor and its relation to post weaning diarrhoea in piglets. J. Vet. Med. B 40, 13-118.
- Lönnroth, I., Martinsson, K. and Lange, S. 1988. Evidence for protection against diarrhoea in suckling piglets by a hormone like peptide in sow milk. J. Vet. Med. B35, 628-635.
- Ulgheri, C. Grilli, E. Rossi, F. Piva, G. 2010. Effect of hydrothermally processed cereals on the performance of weaned piglets. Livestock science, VOL 134, No. 1-3,166-168.



For more information, please visit www.functionalfoods.com

About Lantmännen

Lantmännen is an agricultural cooperative and Northern Europe's leader in food products, agriculture, machinery and bioenergy. Lantmännen is owned by 25 000 farmers and with grain at the heart of our operations, we refine arable land resources to make farming thrive.

Conditions for growing oats are great in the Nordic region and Lantmännen is taking a long-term approach to investments in processing, research and innovation within oats.

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