

Effect of Leiber CeFi® pro on performance and health of sows and their piglets



Success in the pig farming industry is determined by the number of piglets reared. The health and fertility of the sows and a steady, uninterrupted increase in piglet body weight are the most important influencing factors. High infection pressure and lack of hygiene at the farms, as well as inadequate feed quality with, in some cases, significant levels of bacterial and mycotoxin contamination work against this goal. This trial is intended to show how **Leiber CeFi**^{® pro} can improve the immune defences, health status, and performance parameters of breeding sows and piglets.

Trial Design:

Trial site: A feeding experiment was conducted between April and August involving breeding sows and piglets at a rearing and fattening facility in Wroniawy, south of Posen (Poland) that has 2000 sows. The trial was supervised and conducted by Professor Fuchs of the Institute for Animal Nutrition and Animal Feed Science in Breslau. From day 85 the sows were given the facility's lactation feed with 0.3% **Leiber CeFi®**^{pro}. The piglets were weaned on day 21. From this point up to day 45 they were fed starter I and from day 45 to 90, starter II. This feed also contained 0.3% **Leiber CeFi®**^{pro}.

Tab. 1: Lactation feed			
Wheat	36.3		
Barley	18.0		
Triticale	15.0		
Wheat bran	9.0		
Soy HP	10.0		
Rapeseed meal	4.0		
Rapeseed oil	2.0		
Fishmeal 72%	2.0		
Minconcentr.	3.0		
Premix	0.5		
CeFi ^{® pro}	0.3		
Crude protein	16.8		
Lysine	1.0		
Methionine	0.32		
ME-S (MJ)	13.2		

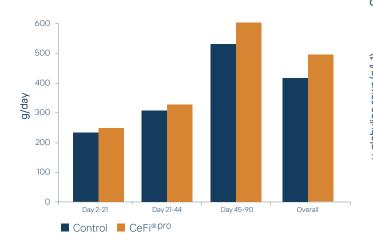
Tab. 2: Piglet starter feed I+II				
	I	II		
Wheat	63.1	25.6		
Barley	-	18.0		
Maize	-	30.0		
Soybean meal	2.5	4.0		
Soy HP	10.0	7.0		
Whey powder	10.0	5.0		
Rapeseed oil	4.0	2.0		
Fishmeal 72%	7.0	5.0		
Minconcentr.	2.0	2.3		
Feed-acids	0.7	0.4		
Premix	0.5	0.5		
CeFi ^{® pro}	0.3	0.3		
Crude protein	20.3	18.3		
Lysine	1.46	1.38		
Methionine	0.56	0.54		
ME-S (MJ)	14.2	13.8		

Results:

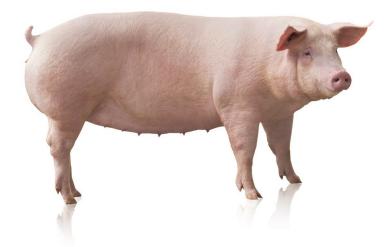
Tab. 3: Effect of Leiber CeFi ^{® pro} on the rearing success of breeding sows				
	Control	CeFi ^{® pro}		
Number of sows (n)	10	10		
Initial weight of sows (kg)	252	251		
Final weight of sows (kg)	209	218		
Weight loss during lactation (kg)	43	33		
Live-born piglets per litter (n)	10.9	11.1		
Stillborn piglets per litter (n)	0.5	0		
Weaned piglets per litter	9.5	10.1		
Runts + losses at day 21 (n)	14	10		
Runts + losses at day 21(%)	12.8	9.0		
Pregnancy rate (%)	70	80		

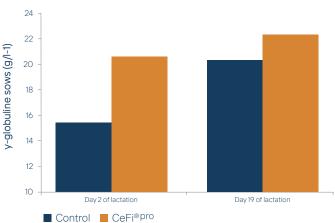


Fig. 1: Effect of Leiber CeFi® pro on daily weight gain of piglets



- The number of piglets weaned/litter increased by 0.6 piglets.
- The sows' weight loss during the suckling phase was reduced by 25%.
- The rate of return to oestrus following weaning decreased by 10% in absolute terms.
- O.3% Leiber CeFi^{® pro} resulted in a significantly higher level of immunoglobulins present in the sows' serum at farrowing and weaning time, indicating an elevated immune status. A significant reduction in the rate of stillbirths and losses in the suckling pens are evidence for these positive effects.
- Feeding Leiber CeFi[®] pro to piglets whose live weight is between 6 and 40kg increased their daily weight gain by 6-13% and their feed conversion rate by 4,5% to 8.7%.
- The loss rate in this phase was decreased markedly.
- High levels of y-globulins were found in the serum of the control group at day 45 and day 90, indicating inflammatory reactions of these animals. Stable levels during the rearing phase and high albumin levels in the CeFi^{® pro} group attest the healthy immune status of these animals and maybe indicate supply with nucleotides by the mother sow. High growth rates and few losses in this group support this hypothesis.





Tab. 4: Effect of Leiber CeFi ^{® pro} on performance parameters of piglets				
	Control	CeFi ^{® pro}		
Number of piglets (n)	95	101		
Birth weight (kg)	1.5	1.56		
Weight at day 21 (kg)	6.0	6.2		
Daily weight gain to day 21 (g)	237	244		
21st – 45th day:				
Weight at 45 day (kg)	13.5	14.2		
Daily weight gain day 21-45 (g)	313	333		
Feed intake day 21-45 (kg)	11.8	12.1		
Feed conv. at day 21-45 (1:)	1.57	1.50		
45th – 90th day:				
Weight at 90 days (kg)	37.2	41.2		
Daily weight gain day 45-90 (g)	526	595		
Feed intake day 45-90 (kg)	54.5	56.3		
Feed conv.at day 45-90 (1:)	2.3	2.1		
Losses:				
Losses day 2190 (n)	5	0		
Losses day 2190 (%)	5.6	0.0		



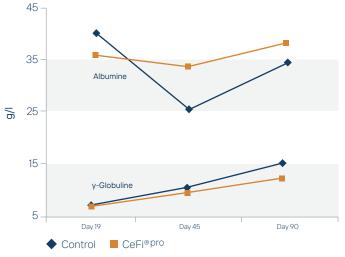


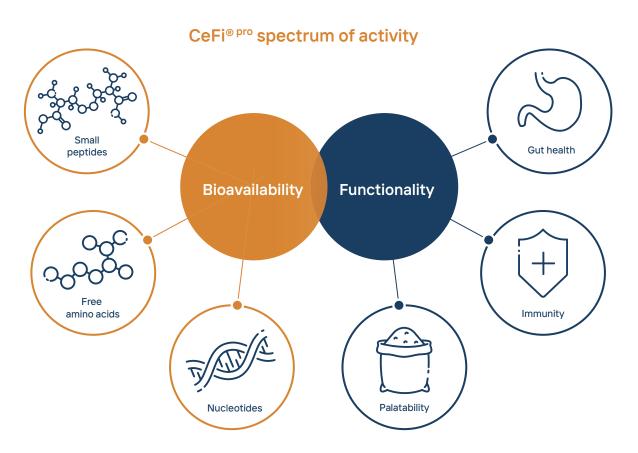
Fig. 2: Effect of CeFi^{® pro} on immunoglobulin levels in serum of sows



Conclusions:

- The use of 0.3% Leiber CeFi^{® pro} in the gestation and lactation feed of breeding sows increases the number of live-born piglets and rearing success.
- The improved condition and vitality of the breeding sow, as indicated by a decrease in weight loss during the suckling phase, are passed on to the piglets in the suckling phase resulting in reduced piglet losses and higher weight gains.
- The use of Leiber CeFi^{® pro} in piglet feed boosted the immune status of the piglets following weaning, resulting in piglets displaying a lower susceptibility to infection, reduced mortality rates and increased growth performance.





Reference: Prof. B. Fuchs, Institute of Animal Nutrition, Breslau)



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