



Sunflower Protein Concentrate

Product Information

We have developed sunflower protein concentrate (SnPC) in cooperation with leading food equipment manufacturers. SnPC is produced by newly-developed sustainable technology and it perfectly suits as a protein source for a wide group of animals: pets, aquacultures and fish, poultry, piglets. SnPC provides animals with all important amino acids.

The key properties SnPC are:

- High protein content (up to 83%)
- Free of GMOs*, anti-nutritional factors, soy, lactose, gluten, aspartame
- High digestibility (up to 98%)
- Komplette und ausgewogene Aminosäurezusammensetzung

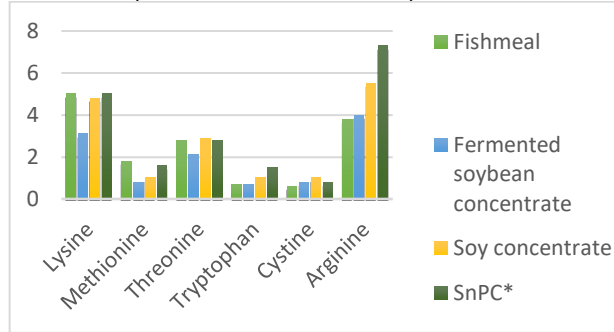
Content:	in %	Auxiliary data:	
Crude protein	75-85	Pesticides, mg/kg	<0,001
NFE	5,1	Aflatoxin, mg/kg	<0,001
Humidity	4,4	Stachyose, %	<0,5
Raw ash	4,3	Raffinose, %	<0,2
Crude fiber	<0,5	Sugar, %	4,50%
Crude Fat	2	Strength, %	<0,5
		Water-binding capacity	1,03
		Density, g/cc	0,4
Essential amino acids:	g/100g	% RP*	
Lysine	5	5,9	
Methionine	1,65	1,95	
Cysteine	0,8	0,94	
Threonine	2,71	3,2	
Tryptophan	1,54	1,82	
Arginine	7,42	8,75	
Leucine	4,83	5,7	
Isoleucine	3,32	3,92	
Phenylalanine	4,09	4,82	
Tyrosine	2,11	2,49	
Valine	3,83	4,52	
Histidine	1,88	2,22	
<i>*RP crude protein</i>			
Heavy metals:	(mg/kg)*	Minerals:	
*not allowed by standards, that is		Potassium (K)	1,15%
Arsenic	<1	Phosphorus (P)	0,48%
Lead	<1	Calcium (Ca)	0,11%
Cadmium	<0,2	Salt (NaCl)	0,11%
Mercury	<0,03	Magnesium (Mg)	0,20%
		Iron (Fe)	129 mg / kg
		Selenium (Se)	0,16 mg / kg
		Copper (Cu)	39,6 mg / kg
		Microbiology*:	
		mesophilic aerobic and facultative anaerobic	
		Microorganisms	2x10 cbm
		CGB in 0.1g of the product	not recognized
		S. aureus in 0.1g	not recognized
		Sulfite-reducing clostridia in	not recognized
		1.0g of the product	
		Yeast and mold	not recognized
		Pathogenic microorganisms	not recorded
		(include. salmonella) in 25g	

The product has been registered into the positive list of the Deutsche Landwirtschafts-Gesellschaft (DLG) e.V. with the number 02.15.08. The product is certified according to ISO 22000:2005.

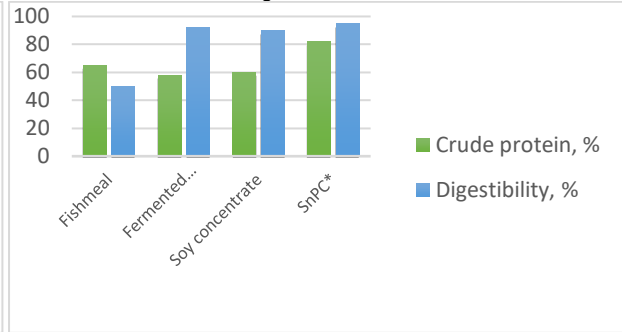
SnPC has been tested by key players at EU animals feed market and, based on the trails results, product shows consistently excellent results at poultry, pigs, aquacultures and pets feed.



The amino acid profile of sunflower protein concentrate makes the product a valuable source of protein



The nutritional value of sunflower protein concentrate exceeds that of existing available alternatives:



*Sunflower Protein Concentrate

Feed optimization table - analysis of a group (Variable animal groups)

Nutrient composition of sunflower protein concentrate					
Dry matter	%	95,6	Convertible energy, broilers	MJ/k	13,72
Crude protein (N x 6,25)	%	80,8	Feasible energy, piglets	MJ/k	10,12
Crude fat	%	2,8	(Ca)	g/	1,1
Crude fiber	%	<0,5	(P)	g/	4,8
Raw ash	%	3,92	(K)	g/	11,5
Sugar	%	4,5	(NaCl)	g/	1,1
Linoleic acid	%	1,12	(Mg)	g/k	1,9
NFE	%	4,8	(Fe)	mg/k	129
Protein digestibility (AFD)	%	95,0	(Se)	mg/k	0.16
Ileum digestibility (AID)	%	83,9	Carotene	mg/k	75
Amino acid profile of the sunflower protein concentrate					
		Content	Ileum digestibility	Standard Ileum digestibility	
Arginine	%	7,42	91,6	92,1	
Lysine	%	5,0	86,0	87,7	
Methionine	%	1,65	88,1	88,7	
Cystine	%	0,8	73,8	76,1	
Methionine + cystine	%	2,45	80,95	82,4	
Threonine	%	2,71	82,0	83,9	
Tryptophan	%	1,54	-	-	
Leucine	%	4,83	84,7	85,5	
Isoleucine	%	3,32	82,2	83,2	
Phenylalanine	%	4,09	84,9	85,5	
Tyrosine	%	2,11	88,7	90,0	
Valine	%	3,83	80,7	81,8	
Histidine	%	1,88	81,5	82,3	
Serine	%	3,32	82,2	84,7	
Alanine	%	3,30	84,5	85,8	
Aspartic acid	%	7,56	82,1	83,0	
Glutamic acid	%	17,72	87,2	87,8	
Glycine	%	4,43	77,1	78,9	
Proline	%	3,32	96,3	99,0	