

# HAMLET PROTEIN



Balancing feed for optimal weaning and growth

Lars Sangill Andersen, HAMLET PROTEIN

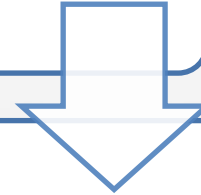
# Early feed intake and gut physiology.



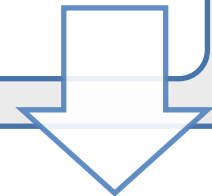
# Issues at weaning



**Feed intake**



**Gut health**

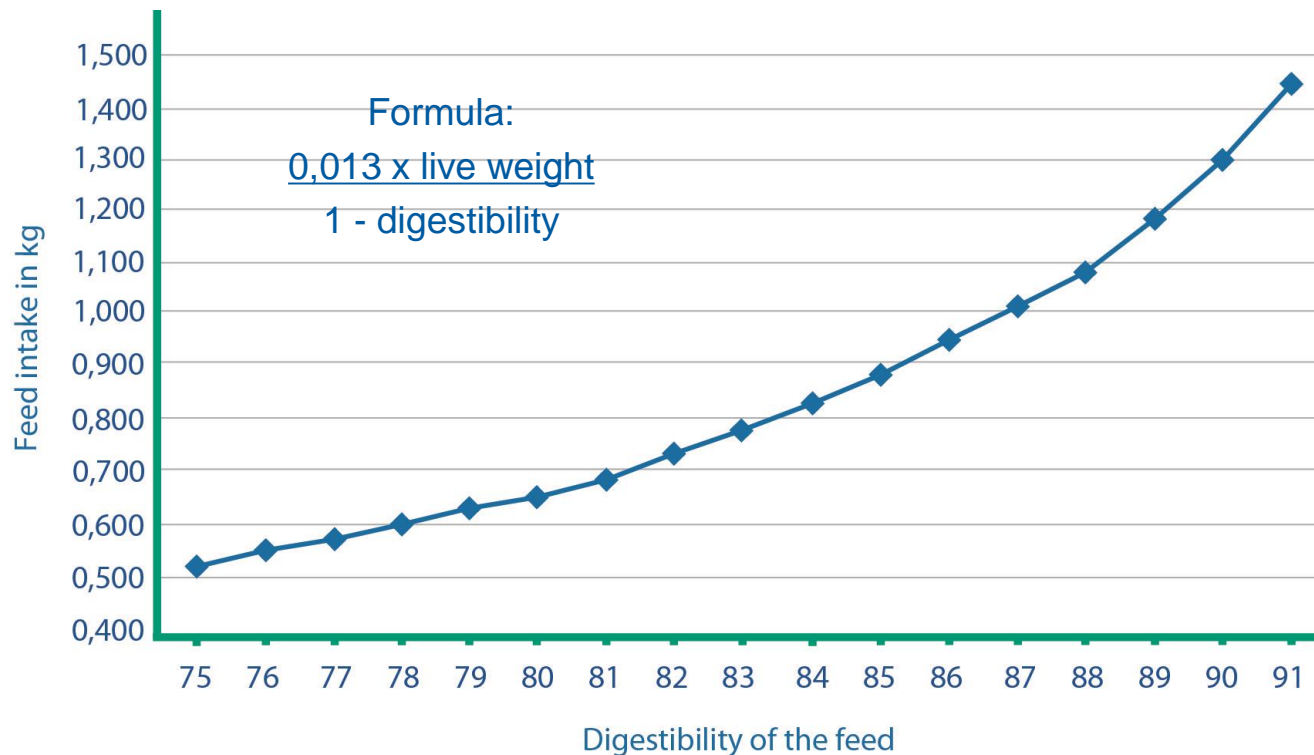


**Growth**



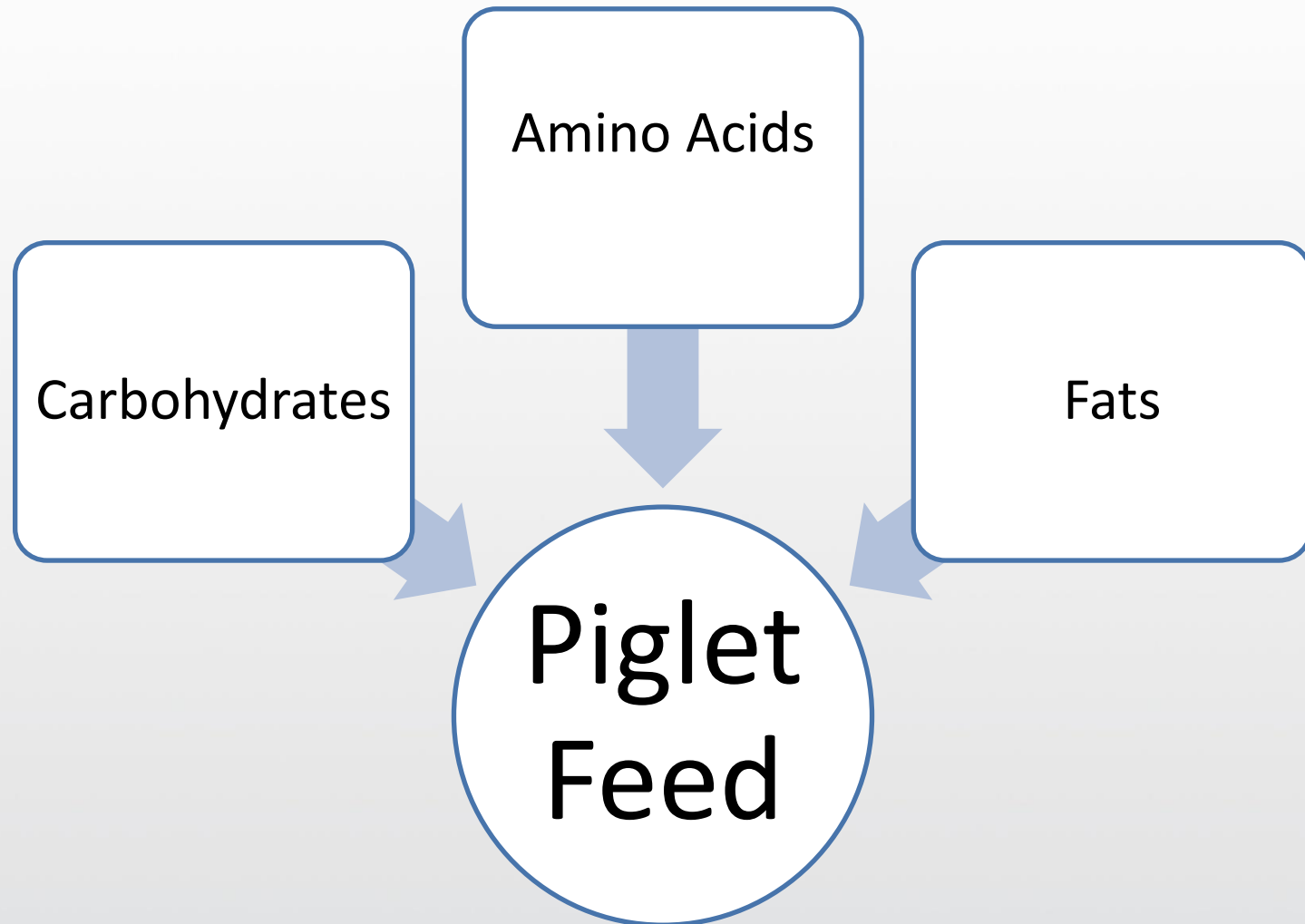
# Feed intake as function of digestibility

Maximum feed intake by a 10 kg piglet compared to the digestibility of the feed





# Major Nutrients





## Amino Acid sources – past and future

- Skimmed Milk Powder
- Fish Meal
- Spray Dried Porcine Plasma
- Potato Protein Concentrate
- Specialised Soy Proteins
- Ordinary Soy Products
- Other Vegetable Proteins
- Other Animal Proteins?



## The most important soya products

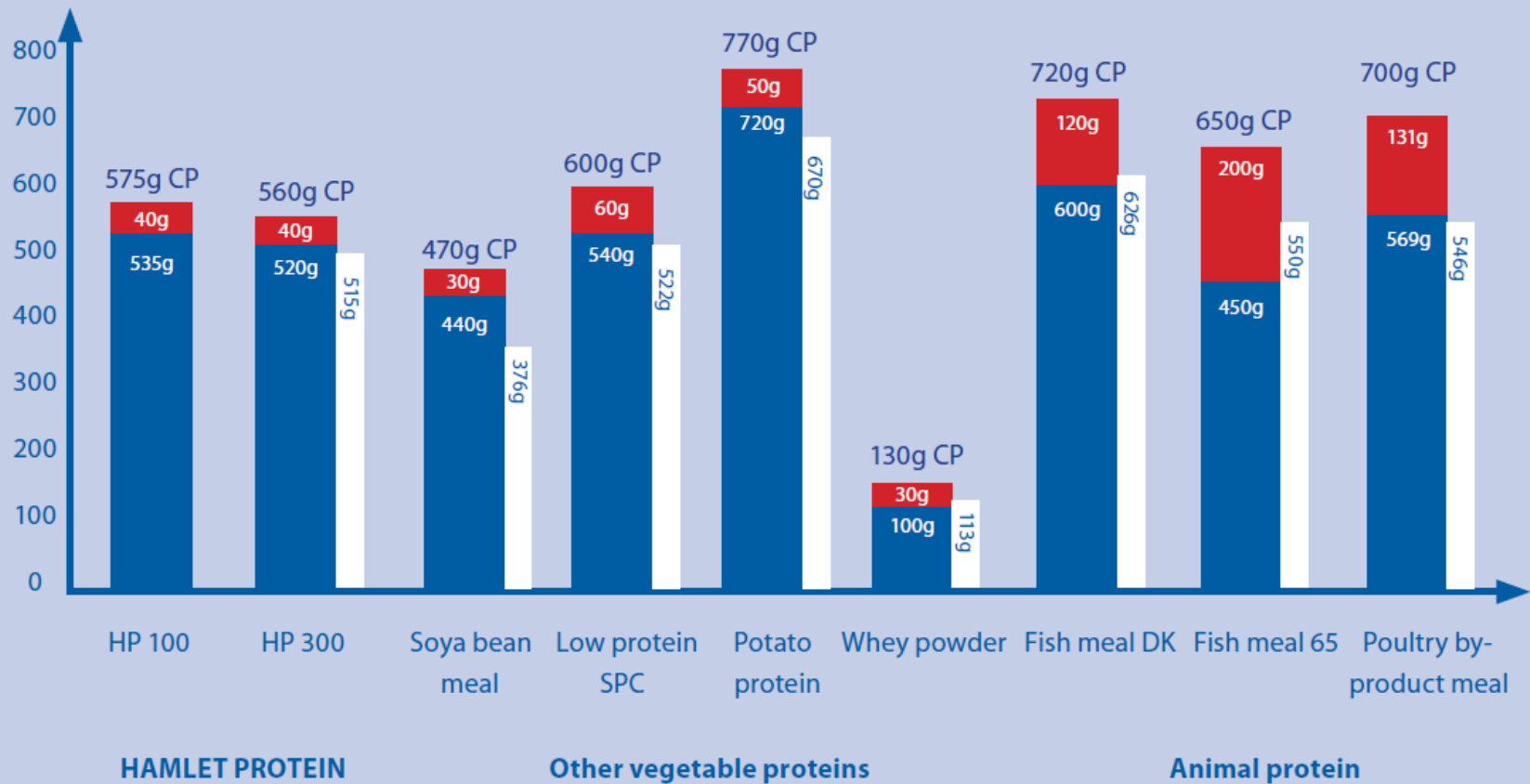
	% protein
Full Fat Soya	36 - 38
Soya bean meal, HiPro	47 - 48
Fermented Soya	50 - 53
HAMLET PROTEIN	53 - 57.5
Soya Protein Concentrates	65 -68



# Non-Protein Nitrogen

- non-protein nitrogen (g)
  - amino acids (g)
  - digestible amino acids (g) (pigs)
- CP = crude protein

Composition in 1000g product







# Why specialised proteins?

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## Soya – a blessing in disguise?

- Soya is the most cost efficient protein source
- Abundant supply
- Favourable amino acid profile

## But

- From nature soya contains a number of anti-nutritional factors (ANF) that significantly decrease the applicability
- HAMLET reduces ANF to a perfectly safe level without compromising protein quality
- Allowing FULL exploitation of the growth potential in soya!



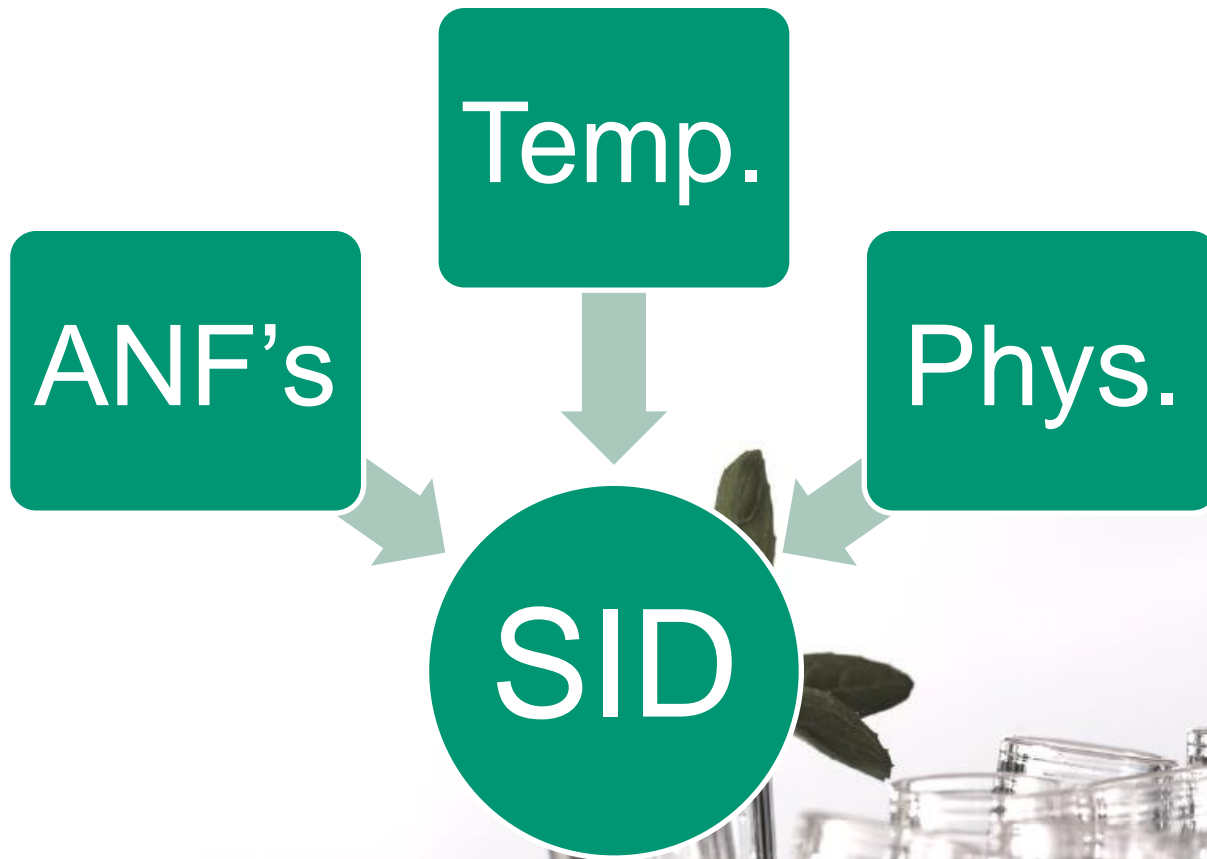


# Soy products in piglet nutrition





# Why all these efforts?





# Important Anti-nutritional factors

	Fullfat soya	High Pro soybean meal	Fermented soybean meal	<b>HAMLET PROTEIN HP 300</b>	Soya protein concentrates
Trypsin inhibited mg/g protein	10 - 25	4 - 8	3 - 8	2 - 3	2 - 3
B-conglycinin mg/g	50 - 100	10 - 50	1 - 10	0.002	< 0.002
Stachyose (%)	4-4.5	4.5-5	1-5	< 0.5	1 - 3
Raffinose (%)	0.8-1	1-1.2	0.2-1.2	< 0.1	< 0.2
Phytic acid (%)	0.6	0.6	0.6	0.4	0.6



# HAMLET PROTEIN A/S

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# THANK YOU