



# ENTIRE MALES FED HIGH-PROTEIN AND –ENERGY DIETS

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# MAXIMUM GROWTH + REDUCED ODOR

## Theory:

Extra amino acids and energy for male pigs and sows from 30-110 kg

- Increases productivity.
- Reduces boar taint.

## Hypothesis:

- The production value increases by 5%
- Boar taint reduced significantly.

# BOAR TAINT AND CARCASS WEIGHT

Carcass weight	75 kg	95 kg
Skatol ppm	0.06	0.07
Androstenon ppm	1.23 <sup>a</sup>	1.72 <sup>b</sup>

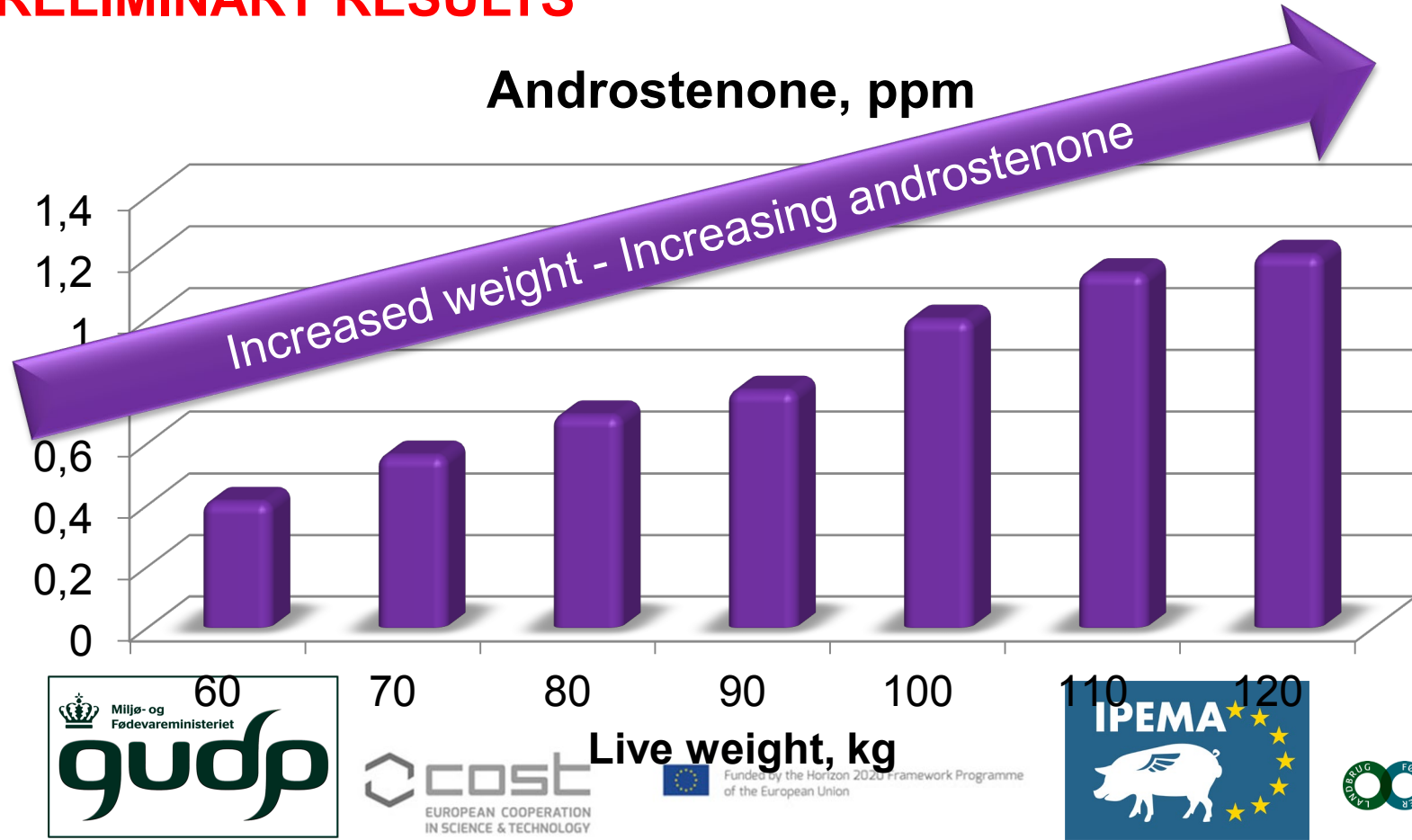


Costs loosing  
20 kg?

20% extra > 1.00  
ppm androstenon

# BIOPSY - RESULTS

## PRELIMINARY RESULTS



# MAXIMUM GROWTH + REDUCED ODOR

- Increase the entire males growth - younger at slaughter
  - Increase protein and amino acids in feed with +15%
  - Increase energy (FUgp) with +8%
- Results
  - Male pigs daily gain was increased by 65 g (\*\*\*)
  - Feed conversion and lean meat percentage was not affected
- Results for boar taint
  - Skatol equal
  - Lower human nose character



# TRIAL DESIGN IN TOTAL 2833 PIGS

Group		Diet	No of pigs
1	Sow	Control	730
2	Male pig	Control	684
3	Sow	+ energy and protein	716
4	Male pig	+ energy and protein	703

# DIETS

Raw materials	Control	Trial
Wheat	49,0	45,2
Barley	25,2	25,0
Wheat bran	3,0	0
Soya bean meal	9,7	22,6
Sunflower meal	8	0
Palm oil	1	2,7
Vitamins minerals	4,1	4,5

# NURTITIONAL CONTENT

Nutrient	Control	Trial	Difference
Energy (FEsv)	105,6	112,7	+7%
Protein std. digestible	125,25	137,1	+9%
Lysine g/FEsv	8,47	9,24	+10%
Methionine g/FEsv	4,81	5,25	+10%
Threonine g/FEsv	5,4	6,20	+12%
Tryptophane g/FEsv	1,7	1,93	+15%



# RESULTS MALE PIGS – PRODUCTIVITY

			Difference	P-value
No	603	611	-	-
Penns	46	47	-	-
Carcass weight	82,0	84,1	+2,1	<0,0001
Lean meat % (+1,3)	60,7	60,6	0,1	ns
g/day	1084	1147	62,5	<0,0001
Days 30-110 kg	74	69	-5	-
FEsv/day	2,54	2,67	0,13	<0,0001
FEsv/kg	2,34	2,33	-0,01	ns

Mortality  
2,0 and 1,7 %

# RESULTS MALE PIGS – PRODUCTION VALUE

			Difference	P-value
No	603	611	-	-
Penns	46	47	-	-
Same diet price				
DKK/pen place/year	880	966	+85	<0,0001
EURO	117	129	+12	-
Feed price DKK/FEsv	1,82	1,92	0,10	-
EURO	0,24	0,26	0,02	-
DKK/pen place/year	845	863	18	-
Diet price paying the diet	1,82	1,91	-	-
EURO	0,24	0,25	-	-

# RESULTS MALE PIGS – BOAR TAIN

			Difference	P-value
No	603	611	-	-
Skatol (ppm)	0,09	0,09	-	-
Human nose = 2 (%)	7,8	4,9	-2,9	0,053

Human nose “at line”:

0 = nothing

1 = slightly boar taint

2 = boar taint

# RESULTS SOWS – PRODUCTIVITY

			Difference	P-value
No	730	716		-
Penns	49	48		-
Carcass weight	83,6	85,0	+1,4	0,0002
Lean meat % (+1,3)	60,5	60,4	-0,1	ns
g/day	1089	1126	+37	<0,0001
FEsv/day	2,72	2,84	+0,12	<0,0001
FEsv/kg	2,50	2,53	+0,03	0,08

Mortality  
0,8 and 0,7%

# RESULTS SOWS – PRODUCTION VALUE

			Difference	P-value
No	730	716	-	-
Penns	49	48	-	-
Same diet price				
DKK/pen place/year	799	817	+17,5	
EURO				
Feed price DKK/FEsv	1,82	1,92		
EURO				
DKK/pen place/year	780	688	-92	
Diet price paying the diet	1,82	1,84	0,02	
EURO				

# CONCLUSION

Feeding concentrated diet to **male pigs**:

- +63 g/day
- 5% increased feed intake (energy)
- 5 days earlier at slaughter
- Could pay for the higher diet price.
- Feeding concentrated diet to **sows**:
- + 37 g/day
- 4% increased feed intake (energy)
- Could not pay for the higher diet price.

