Supply of lysine and threonine to finishers

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Abstract

The supply of lysine and threonine to finishers was studied in this trial. The trial was carried out in one herd and comprised a total of 5,580 pigs in nine groups and 62 replicates.

The crude protein level was 130 g standardised digestible crude protein per FUgp in all nine groups. The table below shows the levels of lysine and threonine used in this trial. The remaining essential amino acids and the content of calcium, sodium and digestible phosphorus were min. 10% above the current standards.

Group	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Standardised dig. threonine/FUgp, g	4.3	4.4	4.7	4.9	5.3	5.3	5.3	5.3	5.3
Standardised dig. lysine/FUgp, g	8.2	8.2	8.2	8.1	8.1	7.7	7.3	6.9	6.4
Production results									
Productivity (P)/place unit/year	634	642	654	679	669	673	674	650	604
P index compared to group 3	97	98	**100**	104	102	103	**103**	99	92

There was a significant effect of increasing threonine content in the feed. This was studied in groups 1-5. The effect was described with a production function that showed that the highest productivity per place unit/year could be achieved at 4.9 g standardised digestible threonine per FUgp.

There was a significant effect of increasing lysine content in the feed. This was studied in groups 5-9. The effect was described with a production function that showed that the highest productivity per place unit/year could be achieved at 7.4 g standardised digestible lysine per FUgp.

Compared with lysine, threonine has a larger effect on the feed intake. On the other hand, lysine affects the lean meat percentage more than threonine.

On the basis of this trial, it can be concluded that the current standard of 7.4 g standardised digestible lysine per FUgp can be maintained, while the current standard of 4.7 g standardised digestible threonine per FUgp ought to be increased to 4.9 g.