

Effects of maternal vitamin D₃ status on meat quality and fatty acids composition in offspring pigs

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Supplemental Tables 1–3

Supplemental Table 1. Sows' gestation diet composition¹

Ingredients, %		Nutrients ³	
Maize	61.91	DE, MJ/kg	13.03
Wheat bran	16	CP, %	16.45
Soyabean	19	Ca, %	0.68
Fish meal	0	Available P, %	0.36
Limestone	1.5	Lys, %	1.04
CaHPO ₄	0.29	Met, %	0.24
Salt	0.3	Met+Cys, %	0.52
Premix ²	1		
Total	100		

DE – digestible energy; CP – crude protein; Lys – lysine; Met – methionine; Cys – cysteine; ¹ The basal composition of gestation diet for low vitamin D₃ (LD), normal vitamin D₃ (ND) and high vitamin D₃ (HD) groups from a 41 day of age until birth was similar except for vitamin D₃ levels; ² Provided the following per kg: mg: Cu 10, Fe 80, Mn 25, Zn 100, I 0.2, Se 0.2; vit. K₃ 1, vit. B₁ 1, riboflavin 3.75, vit. B₆ 1, vit. B₁₂ 15, pantothenic acid 12, niacin 10, choline 1.25 and IU: vit. A 4000, vit. D₃ 200 (LD group), vit. D₃ 800 (ND group), vit. D₃ 3200 (HD group), vit. E 44; ³All data are analyzed values except for digestible energy, which was calculated using swine National Research Council values (NRC, 2012)

Supplemental Table 2. Sows' lactation diet composition¹

Ingredients, %		Nutrients ³	
Maize	68	DE, MJ/kg	13.42
Wheat bran	8.02	CP, %	16.77
Soyabean	20	Ca, %	0.70
Fish meal	1	Available P, %	0.36
Limestone	1.5	Lys, %	1.09
CaHPO ₄	0.18	Met, %	0.27
Salt	0.3	Met+Cys, %	0.54
Premix ²	1		
Total	100		

DE – digestible energy; CP – crude protein; Lys – lysine; Met – methionine; Cys – cysteine; ¹ The lactation diet contained the same vitamin D₃ level for sows from low vitamin D₃ (LD), normal vitamin D₃ (ND) and high vitamin D₃ (HD) groups, and their offspring piglets were weaned at a 28 day of age; ² Provided the following per kg: mg: Cu 20, Fe 80, Mn 25, Zn 100, I 0.2, Se 0.2; vit. K₃ 1, vit. B₁ 1, riboflavin 3.75, vit. B₆ 1, vit. B₁₂ 15, pantothenic acid 12, niacin 10, choline 1 and IU: vit. A 2000, vit. D₃ 800, vit. E 44; ³all data are analyzed values except for digestible energy, which was calculated using swine National Research Council values (NRC, 2012)

Supplemental Table 3. Composition of offspring pigs' basal diets

		28–90 days	91–150 days
Ingredients, %			
maize	71.95	76.5	
soyabean	24	20	
limestone	0.7	0.9	
CaHPO ₄	1.7	1.2	
lysine	0.25	0.21	
salt	0.4	0.4	
premix ¹	1	1	
Nutrients ²			
DE, MJ/kg	13.75	13.79	
CP, %	17.78	15.65	
Ca, %	0.71	0.67	
available P, %	0.42	0.35	
Lys, %	0.96	1.11	
Met, %	0.27	0.26	
Met+Cys, %	0.55	0.52	

DE – digestible energy; CP – crude protein; Lys – lysine; Met – methionine; Cys – cysteine; ¹ Provided the following per kg: mg: Cu 10, Fe 80, Mn 30, Zn 80, I 0.5, Se 0.3; vit. K₃ 1.86, vit. B₁ 3, riboflavin 3.6, vit. B₆ 1.5, vit. B₁₂ 20, pantothenic acid 18, niacin 26, choline 56 and IU: vit. A 5850, vit. D₃ 1251, vit. E 20; ²All data are analyzed values except for digestible energy, which was calculated using swine National Research Council values (NRC, 2012)