

Supplementary Table 4 a. Effect of slaughter weight on the basic chemical composition, TBARS, profile of selected fatty acids, colour and pH of loin meat and on fattening and slaughter performance of pigs (mean, SD)

n	120		130		140	
	32		32		32	
	mean	SD	mean	SD	mean	SD
Fattening and slaughter performance of pigs						
Age at slaughter (days)	288.03	40.78	290.41	40.03	293.65	36.10
Feed intake (FI) (kg)	388.83 B	61.42	448.38 A	84.18	459.30 A	69.44
Fattening (days)	163.53	31.99	178.94	38.38	177.00	34.00
Daily gain during fattening (kg)	0.58 b	0.12	0.58 b	0.11	0.64 a	0.11
Feed conversion ratio (FCR) (kg/kg)	4.30	0.70	4.50	0.86	4.20	0.68
Slaughter body weight (kg)	120.47	2.74	129.74	2.50	139.63	2.38
Dressing percentage (%)	77.91 A	0.62	77.25 B	0.77	77.31 B	0.71
Mean backfat thickness (cm)	3.38	0.65	3.57 B	0.66	4.11 A	0.67
Loin eye width (cm)	9.65	0.53	9.76	0.62	9.72	0.73
Loin eye height (cm)	5.96	0.70	5.95 a	0.66	5.65 b	0.62
Loin eye area (cm ²)	42.20	5.21	41.99	6.39	41.03	5.57
Carcass meat content (%)	45.62	4.30	45.62 a	5.27	42.13 b	4.98
Quality of meat						
Colour L*	49.67	4.85	51.24	5.80	49.51	4.05
Colour a*	19.42	1.71	19.37	1.89	19.53	1.39
Colour b*	2.59	1.33	3.29	1.65	2.72	1.65
pH ₄₅	6.42	0.19	6.46	0.06	6.46	0.07
pH ₂₄	5.41	0.05	5.43	0.07	5.48	0.20
Protein (%)	24.05	0.72	24.01	1.03	24.14	1.03
Fat (%)	2.30 b	0.98	2.33 b	0.66	2.71 a	0.60
Dry matter (%)	26.98	0.98	26.64 B	0.98	27.34 A	1.03
TBARS (mg/kg)	0.37 A	0.06	0.35	0.09	0.30 B	0.11
Profile of selected fatty acids (g/100 g)						
C16:0	25.82	1.77	25.19	1.41	25.29	1.11
C18:0	13.69 A	0.84	13.09 B	0.97	12.83 B	0.70
C18:1 n-9	43.07 B	2.56	45.04 Ab	2.92	46.52 Aa	2.29
C18:2 n-6	6.89 A	1.94	6.33	1.58	5.58 B	1.39
ΣSFA	41.40 Aa	2.40	40.31 b	2.11	40.15 B	1.41
ΣUFA	58.60 Bb	2.40	59.69 a	2.11	59.85 A	1.41
ΣMUFA	47.87 B	2.69	49.88 Ab	3.05	51.50 Aa	2.33
ΣPUFA	10.74 A	3.47	9.81 a	2.82	8.35 Bb	2.24
ΣPUFA n-6	10.01 A	3.30	9.15 a	2.73	7.73 Bb	2.12
ΣPUFA n-3	0.73 A	0.19	0.68	0.14	0.62 B	0.14
ΣDFA	72.29	1.86	72.77	1.46	72.68	1.19
ΣPUFA n-6/n-3	13.64 b	2.11	13.19	1.96	12.52 a	1.91

Means in rows marked with: different lowercase letters a, b are statistically significantly different at P<0.05; different uppercase letters A, B are statistically significantly different at P≤0.01.

Supplementary Table 4 b. Effect of gender on analysed traits (mean, SD)

n	Barrows		Gilts	
	48		48	
	mean	SD	mean	SD
Fattening and slaughter performance of pigs				
Age at slaughter (days)	279.69 B	35.65	301.98 A	38.78
Feed intake (FI) (kg)	424.29	60.87	442.93	92.69
Fattening (days)	164.20 B	27.36	183.15 A	40.09
Daily gain during fattening (kg)	0.63 A	0.11	0.57 B	0.12
Feed conversion ratio (FCR) (kg/kg)	4.22	0.60	4.46	0.88
Slaughter body weight (kg)	130.88 A	7.88	129.36 B	8.41
Dressing percentage (%)	77.58	0.69	77.37	0.82
Mean backfat thickness (cm)	3.94 A	0.67	3.42 B	0.68
Loin eye width (cm)	9.59	0.56	9.84	0.67
Loin eye height (cm)	5.71	0.62	6.00	0.70
Loin eye area (cm ²)	40.50	4.56	43.03	6.54
Carcass meat content (%)	42.69 B	5.05	46.30 A	4.55
Quality of meat				
Colour L*	50.24	5.09	50.10	4.92
Colour a*	19.46	1.49	19.42	1.85
Colour b*	2.99	1.61	2.77	1.54
pH ₄₅	6.43	0.16	6.46	0.06
pH ₂₄	5.44	0.06	5.44	0.18
Protein (%)	24.22	0.97	23.91	0.87
Fat (%)	2.71 A	0.82	2.18 B	0.62
Dry matter (%)	27.32 A	1.04	26.64 B	0.91
TBARS (mg/kg)	0.32 b	0.09	0.36 a	0.09
Profile of selected fatty acids (g/100 g)				
C16:0	25.93 A	1.48	24.90 B	1.24
C18:0	13.12	1.02	13.27	0.78
C18:1 n-9	45.32	2.80	44.49	3.05
C18:2 n-6	5.72 B	1.39	6.81 A	1.85
ΣSFA	41.11 A	2.18	40.08 B	1.80
ΣUFA	58.89 B	2.18	59.92 A	1.80
ΣMUFA	50.40 a	2.87	49.15 b	3.16
ΣPUFA	8.49 B	2.25	10.77 A	3.27
ΣPUFA n-6	7.87 B	2.14	10.06 A	3.13
ΣPUFA n-3	0.62 B	0.13	0.73 A	0.17
ΣDFA	72.01 B	1.50	73.19 A	1.30
ΣPUFA n-6/n-3	12.64 B	2.10	13.59 A	1.84

Means in rows marked with: different lowercase letters a, b are statistically significantly different at $P < 0.05$; different uppercase letters A, B are statistically significantly different at $P \leq 0.01$.

Supplementary Table 4 c. Effect of *RYR1* genotype on the traits analysed (mean, SD)

n	<i>CC</i>		<i>CT</i>		<i>TT</i>	
	34		56		4	
	mean	SD	mean	SD	mean	SD
Fattening and slaughter performance of pigs						
Age at slaughter (days)	289.24	40.34	293.26	38.54	267.00	19.49
Feed intake (FI) (kg)	444.71	79.56	433.75	74.82	332.50	52.60
Fattening (days)	172.76	38.37	176.64	32.96	133.75	18.87
Daily gain during fattening (kg)	0.62	0.13	0.58	0.11	0.69	0.08
Feed conversion ratio (FCR) (kg/kg)	4.33	0.80	4.39	0.73	3.63	0.52
Slaughter body weight (kg)	132.91	7.23	129.10	8.30	121.50	2.08
Dressing percentage (%)	77.47	0.81	77.46	0.74	77.81	0.74
Mean backfat thickness (cm)	3.92	0.68	3.58	0.72	3.25	0.66
Loin eye width (cm)	9.75	0.58	9.68	0.66	9.83	0.68
Loin eye height (cm)	5.57	0.58	5.96	0.67	6.65	0.17
Loin eye area (cm ²)	40.22	5.06	42.26	5.96	47.03	3.64
Carcass meat percentage (%)	42.59	4.97	45.32	5.00	47.75	3.77
Quality of meat						
Colour L*	48.52 b	4.55	50.96 a	4.83	52.85	7.92
Colour a*	19.86	1.19	19.24	1.85	18.79	1.93
Colour b*	2.52 b	1.43	3.06 a	1.60	3.37	2.25
pH ₄₅	6.43	0.19	6.46	0.05	6.45	0.04
pH ₂₄	5.43	0.08	5.45	0.15	5.38	0.04
Protein (%)	23.95	1.03	24.10	0.89	24.56	0.52
Fat (%)	2.64	0.72	2.40	0.79	1.68	0.44
Dry matter (%)	26.93	0.92	27.03	1.10	26.86	1.04
TBARS (mg/kg)	0.31 b	0.11	0.36 a	0.08	0.36	0.05
Profile of selected fatty acids (g/100 g)						
C16:0	25.54	1.25	25.41	1.60	24.68	0.69
C18:0	13.10	0.84	13.22	0.95	13.55	1.06
C18:1 n-9	45.62	2.77	44.61	3.06	43.18	0.70
C18:2 n-6	5.79	1.48	6.42	1.79	7.92	1.19
ΣSFA	40.69	1.93	40.59	2.17	40.11	1.91
ΣUFA	59.31	1.93	59.41	2.18	59.90	1.91
ΣMUFA	50.57	2.79	49.47	3.21	47.56	0.41
ΣPUFA	8.75 b	2.52	9.93 a	3.18	12.34	2.31
ΣPUFA n-6	8.11 b	2.40	9.26 a	3.03	11.55	2.25
ΣPUFA n-3	0.64	0.14	0.69	0.17	0.79	0.08
ΣDFA	72.42	1.32	72.63	1.66	73.45	0.85
ΣPUFA n-6/n-3	12.57 b	1.98	13.33 a	1.99	14.54	2.03

Means in the rows marked with different lowercase letters a, b are statistically significantly different at P<0.05.

Supplementary Table 4 d. Effect of feeding group on the traits analysed (mean, SD)

N	A		B		C		D	
	24		24		24		24	
	mean	SD	mean	SD	mean	SD	mean	SD
Fattening and slaughter performance of pigs								
Age at slaughter (days)	288.68	36.62	290.15	39.55	297.43	46.14	286.75	33.02
Feed intake (FI) (kg)	459.89	68.15	430.00	71.95	417.17	99.77	427.29	68.33
Fattening (days)	172.26	32.59	174.27	34.50	175.61	44.54	171.75	30.57
Daily gain during fattening (kg)	100.61	8.92	100.23	7.81	100.30	8.57	99.42	7.75
Feed conversion ratio (FCR) (kg/kg)	4.58	0.62	4.30	0.69	4.17	1.01	4.30	0.65
Slaughter body weight (kg)	130.61	8.92	130.23	7.81	130.30	8.57	129.42	7.75
Dressing percentage (%)	77.69	0.65	77.42	0.71	77.49	0.78	77.33	0.87
Mean backfat thickness (cm)	3.76	0.80	3.65	0.71	3.55	0.71	3.80	0.68
Loin eye width (cm)	9.67	0.66	9.68	0.71	9.85	0.56	9.64	0.57
Loin eye height (cm)	5.89	0.50	6.11	0.72	5.76	0.70	5.63	0.66
Loin eye area (cm ²)	41.77	5.83	43.45	6.77	41.32	5.53	40.26	4.26
Carcass meat content (%)	43.96	5.72	44.00	4.58	45.91	5.70	43.96	4.47
Quality of meat								
Colour L*	49.77	4.90	50.41	4.99	48.65	5.33	51.76	4.50
Colour a*	19.50	0.84	19.25	2.21	19.88	1.40	19.17	1.80
Colour b*	2.50	1.70	3.21	1.65	2.53	1.62	3.21	1.21
pH ₄₅	6.41	0.23	6.45	0.05	6.46	0.07	6.46	0.06
pH ₂₄	5.43	0.08	5.47	0.22	5.43	0.07	5.43	0.07
Protein (%)	24.19	0.80	24.01	0.87	23.82	0.80	24.25	1.21
Fat (%)	2.19	0.58	2.46	0.82	2.53	0.63	2.62	0.99
Dry matter (%)	26.86	1.11	26.90	1.07	26.85	0.87	27.36	1.02
TBARS (mg/kg)	0.35	0.13	0.34	0.06	0.32	0.11	0.35	0.06
Profile of selected fatty acids (g/100 g)								
C16:0	25.28	1.20	25.35	1.91	25.48	1.10	25.60	1.52
C18:0	12.96	0.83	13.18	0.96	13.31	0.90	13.32	0.96
C18:1 n-9	43.75 b	2.78	45.17	3.03	45.32 a	3.22	45.39 a	2.54
C18:2 n-6	7.07 Aa	2.00	6.17 b	1.48	6.03b	1.57	5.76 B	1.58
ΣSFA	40.22	1.71	40.49	2.51	40.79	1.74	40.94	2.19
ΣUFA	59.78	1.71	59.51	2.51	59.21	1.74	59.06	2.19
ΣMUFA	48.81	3.24	50.08	3.07	50.01	3.23	50.22	2.65
ΣPUFA	10.97 Aa	3.69	9.43 b	2.53	9.20 b	2.71	8.84 B	2.74
ΣPUFA n-6	10.28 Aa	3.51	8.78 b	2.40	8.54 b	2.60	8.19 B	2.63
ΣPUFA n-3	0.69	0.19	0.66	0.14	0.66	0.12	0.69	0.18
ΣDFA	72.74	1.34	72.69	1.97	72.53	1.09	72.38	1.57
ΣPUFA n-6/n-3	14.67 A	1.66	13.36 B	2.09	12.66 B	1.64	11.72 B	1.51

Means in the rows marked with different lowercase letters a, b are statistically significantly different at $P < 0.05$; different uppercase letters A, B are statistically significantly different at $P \leq 0.01$.