
Effect of the age at 2nd Improvac[®] vaccination on fatty acid composition in back fat of male pigs and comparison to entire boars and barrows

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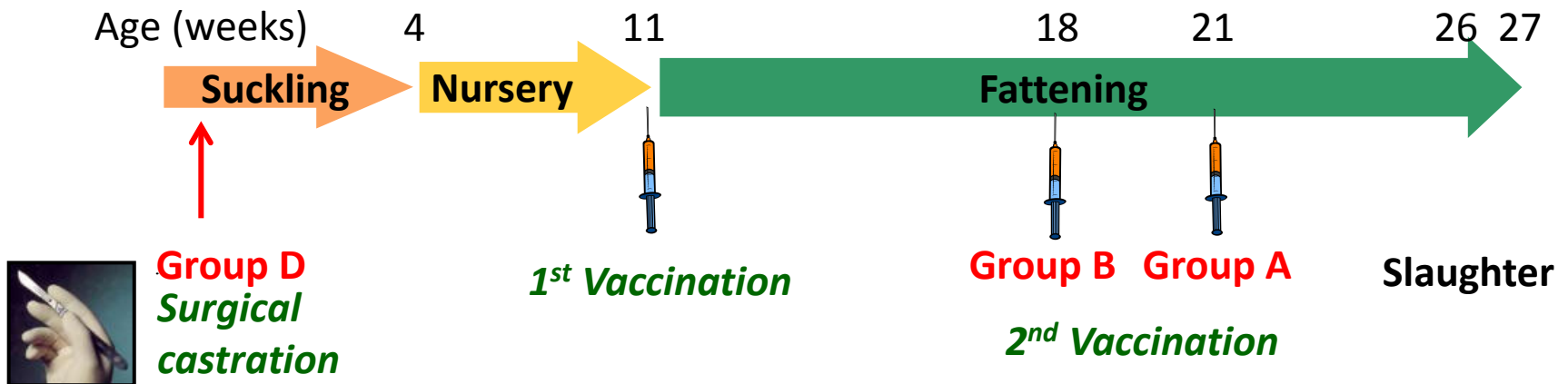
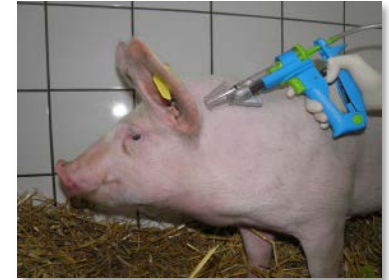
Aim of the study

Comparison of carcass quality and fatty acid composition between:

- Two groups of GnRH vaccinated male fatteners
 - 2nd vaccination at different ages
 - Surgically castrated male fatteners
 - Entire boars
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Material and Methods - *Animals and Vaccination*

- Group A „Improvac[®] A“ 40 male fatteners
- Group B „Improvac[®] B“ 40 male fatteners
- Group C „Entire boars“ 45 male fatteners
- Group D „Castrates“ 41 male fatteners



Material and Methods – *analysed Parameters*

- Carcass quality
 - Lean meat percentage
 - Loin muscle, back fat thickness
- Meat quality
 - Fatty acid composition in back fat by gas chromatography
- Statistical Analysis
 - Anova and Bonverroni



Results - Carcass quality

– Piétrain-crossbreed

	Slaughter weight kg	Lean meat %	Loin muscle mm	Back fat mm
Improvac A	101 œ9,6	59,1 ^a œ2,1	63,7 œ5,2	14,5 ^a œ2,3
Improvac B	99 œ10,2	58,1 ^{a;c} œ2,5	63,8 œ6,9	15,5 ^{a;c} œ2,9
Castrates	99 œ7,9	56,7 ^b œ3,5	66,7 œ9,1	16,8 ^b œ3,7
Entire boars	102 œ7,8	60,0 ^{a;d} œ2,6	64,6 œ6,9	13,4 ^{a;d} œ2,7

p<0,01 a:b

p<0,05 c:d

Results - Meat quality / fatty acid composition

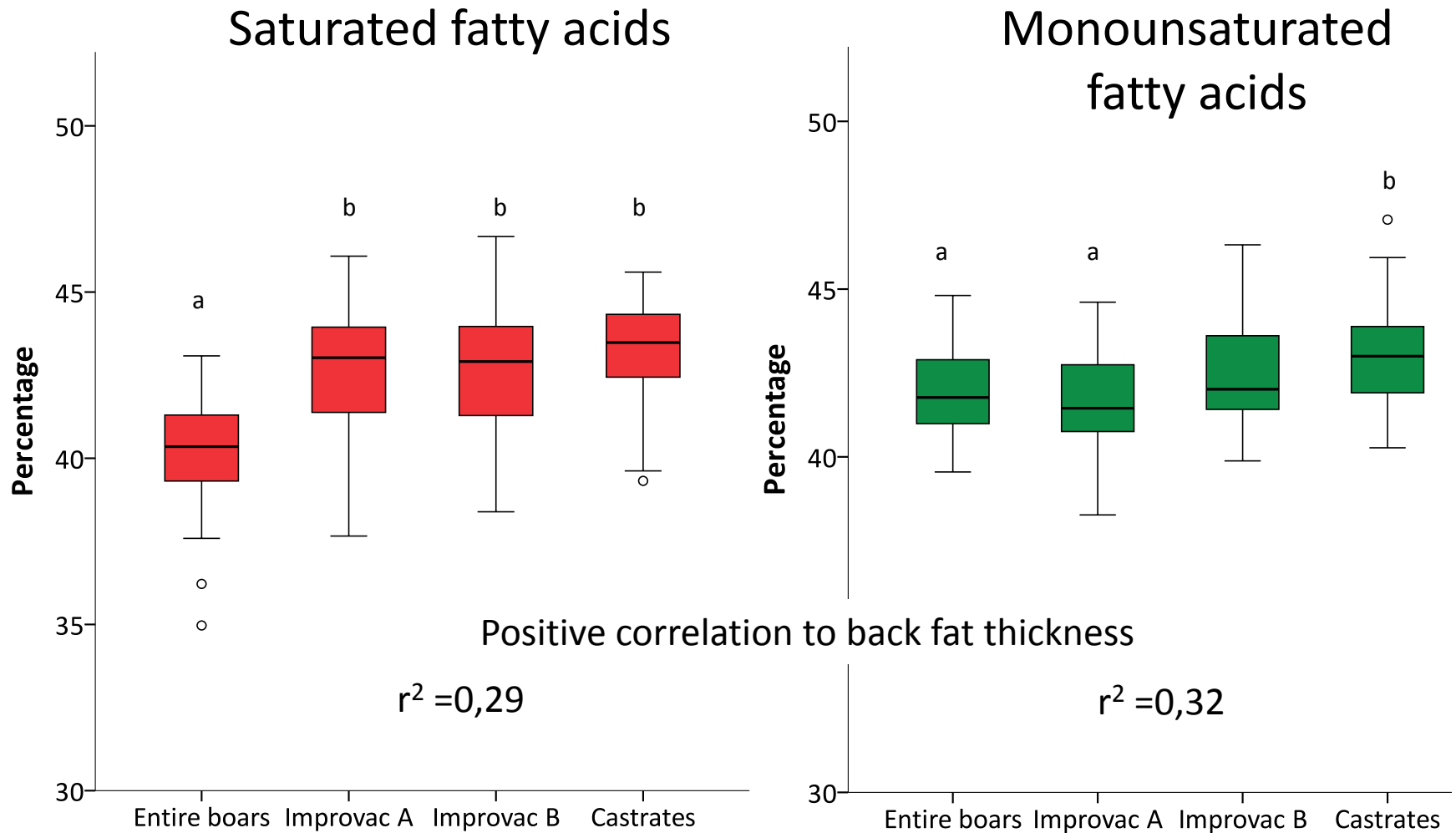
– Piétrain-crossbreed

Significant differences:

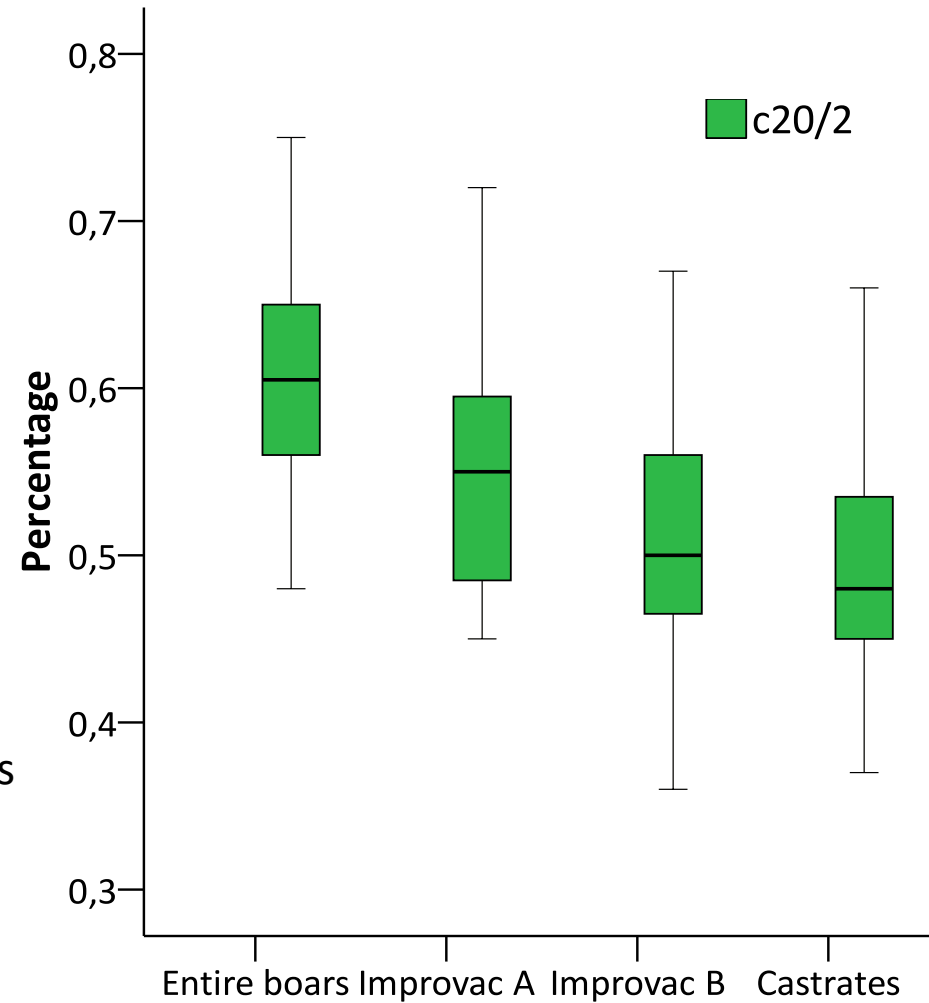
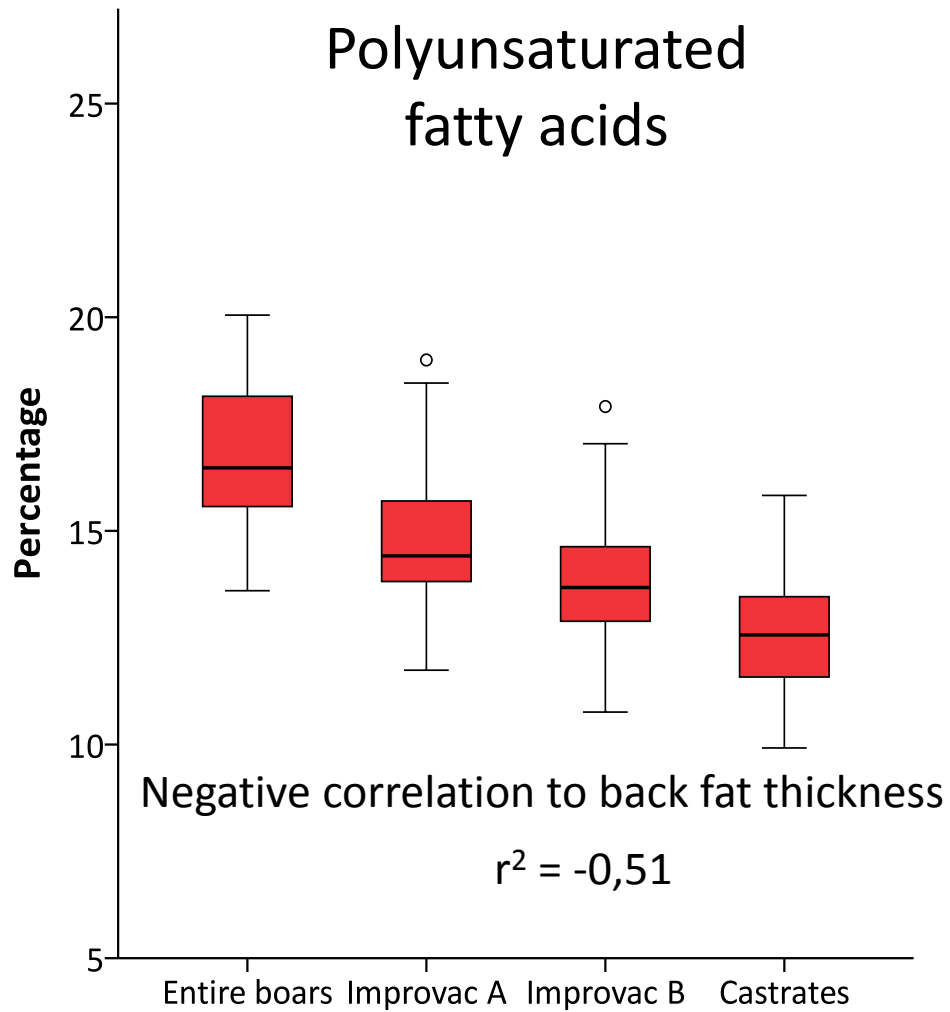
FA %	C16	C18	C18:1	C18:2	C18:3	C20	C20:1	C20:2	C20:3+4	C24
Improvac A	25,6	14,8	38,7	12,9	0,79	0,18	0,79	0,55	0,45	0,08
Improvac B	25,6	14,8	39,4	12,1	0,76	0,18	0,81	0,52	0,43	0,08
Castrates	26,0	15,1	40,0	11,0	0,70	0,20	0,85	0,49	0,39	0,07
Entire boars	24,4	13,7	39,1	14,6	0,94	0,16	0,74	0,60	0,52	0,10

C 8, C10, C12, C14:1, C15, C16:1, C17 very small amounts, no significances

Results – Fatty acid composition



Results – Fatty acid composition



Summary

- Carcass quality
 - Did not differ between vaccination groups
 - Vaccinated pigs had leaner meat and less back fat than castrates
 - Fatty acid composition in back fat
 - Did not differ between vaccination groups, although some PUFA showed a tendency
 - Vaccination groups had a fatty acid composition between entire boars and castrates
 - Correlation between back fat thickness and fatty acid composition
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