

Suitability of traditional breeds for organic and low input pig production systems

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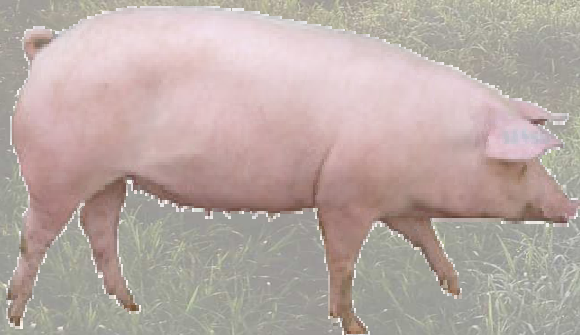
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Background

Modern breeds

- Often used in commercial organic/low input pig production
- May be less suited for these systems



Traditional breeds

- Favoured by organic production standards
- Prolificacy and carcass quality may be less suitable for commodity pork market



Objective

Evaluate the suitability of **traditional** vs **modern** breeds for organic and low input pig production systems

Literature & survey

Reproductive and finishing performance



Traditional and modern pig breeds



Organic and low input pig production systems



Sources of information

- **Literature**

- (scientific) papers, reports, books, websites

- **Survey data (2003-2009)**

TOPIGS (NL, ESP); ANAS (IT); BPEX (UK); GEH (GER); National Association of Mangalica Breeders; DJF (Denmark); CorePig; IFIP (FR); BEP Bioschwein (AUS)



Traditional breeds



Saddleback



Gloucester Old Spot



Berkshire



Large Black



Schwäbisches Hallisches



Middle White



Tamworth



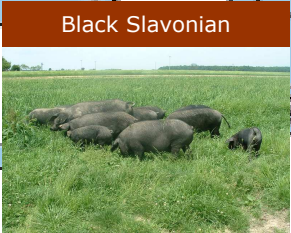
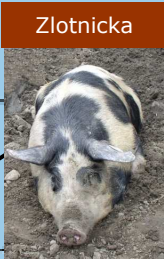
Angler Sattelschwein



Ger. Sattelschwein



Traditional breeds



Traditional breeds



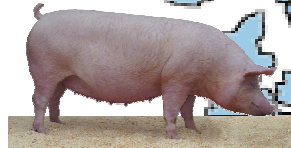
Modern breeds



PIC Camborough
(LR**LW*)



Yorkshire



TOPIGS 20
(LR**LW*)



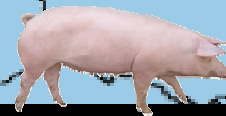
German
Edelschwein



Swedish LR



Danish LR



German LR

Results

Reproductive performance in organic/low input systems



Reproductive performance (example)

Sow Breed	Country	Litter size	Prewaning mortality %	Weaned/litter	# Refs
<u>Traditional</u>					
Saddleback	UK	10.4	10.6	9.2	5
Hampshire	UK	9.2	12.3	8.1	1
Large Black	UK	10.5	12.5	9.2	1
German Sattelschwein	GER	12.2	18.0	10.0	5
Bayeux	FRA	7.0	14.3	6.0	1
Gascon	FRA	8.0	11.3	7.1	1
Mangalica	HUNG	6.2	11.6	5.4	3
Black Slavonian	CRO	7.6	12.5	6.7	3
Pulawska	POL	10.8	8.0	9.9	1
Nero Siciliano	IT	6.2	8.4	5.7	6
Casertana	IT	9.5	20.1	7.6	4
Cinta Senese	IT	8.2	6.4	6.7	4
Ibérico	ESP	7.5	7.9	6.7	8
<u>Modern</u>					
Landrace*Large White	SWE	10.4	19.9	8.4	2
	NL	13.8	22.9	10.6	2
(Landrace*Large White)*Duroc	UK	10.8	13.0	9.4	7
	DEN&SCOT	11.8	18.9	9.8	5
Germ Edel*Germ Landrace	GER	11.7	20.7	9.4	5

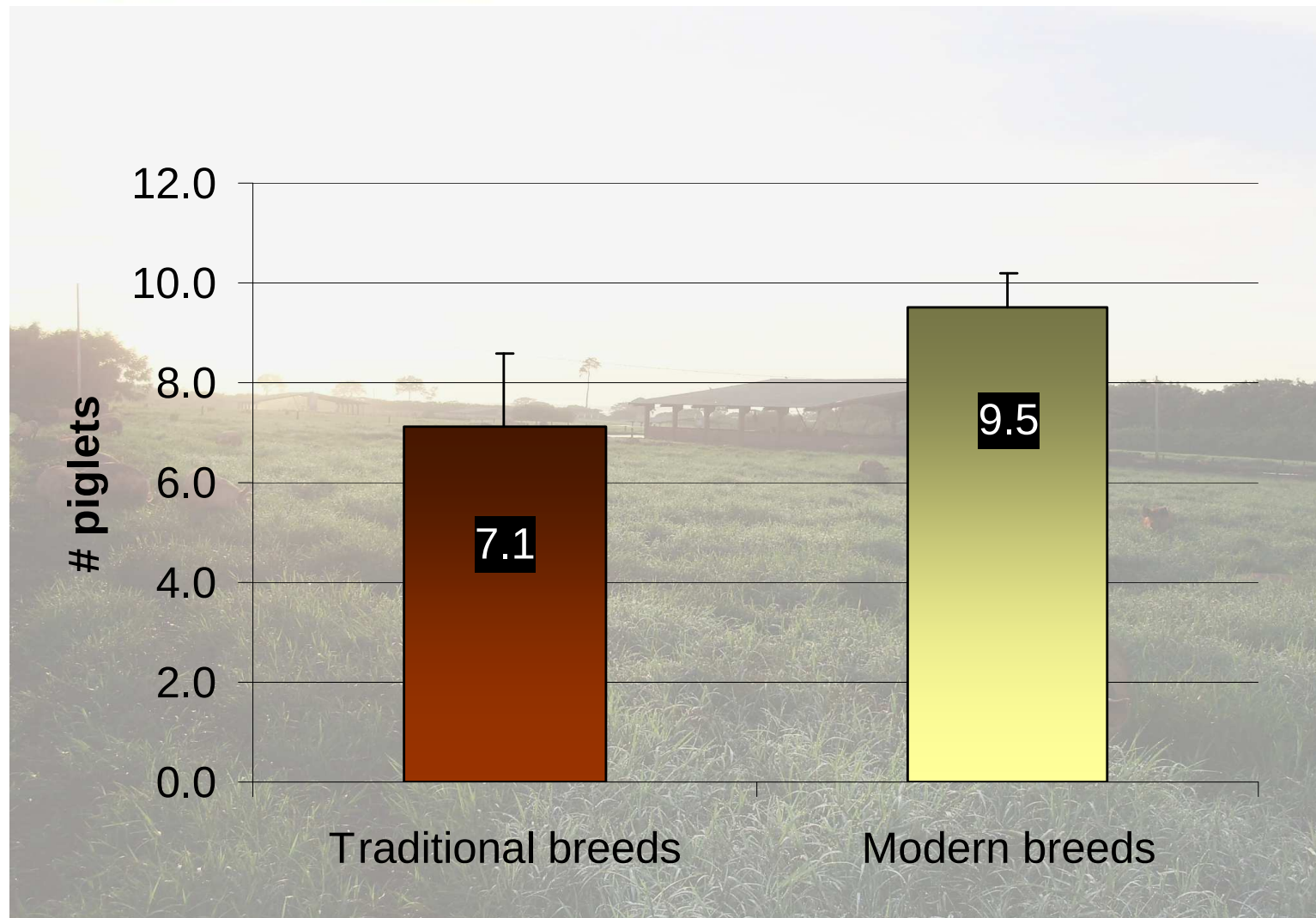
Litter size



Mortality until weaning



Weaned per litter



Results

Finisher performance in organic/low input systems



Finisher performance (example)

Breed of finisher	Country	ADG (g/d)	FCR	Lean meat %	# Refs
<u>Traditional</u>					
Saddleback	UK&GER	682	3.4	52.3	9
Hampshire	UK, SWE, GER	822	2.7	55.6	6
Schwäbisch Hallisches	GER	728	3.0	52.8	4
East Balkan Swine	BUL	394	5.8		1
Zlotnicka	POL	430		50.8	3
Black Slavonian	CRO	478		36.3	6
Pulawska	POL	623	3.2	55.2	1
Mora Romagnola	IT	572	5.7		3
Calabrese	IT	707	4.5	44.8	2
Ibérico	ESP	644	4.8	42.2	16
<u>Modern</u>					
Large White*Landrace	ITA	695	3.8		3
	AUS	726		54.4	3
(Landrace*Large White)*Pi	NL	709	3.0	56.3	3
(Large White*Landrace)*Du	DEN	707		61.0	3
Landrace*Large White*Duroc)*Du	UK	740	3.2	57.4	1
German Edel*German Landrace	GER	806	2.8	54.7	19

Daily gain



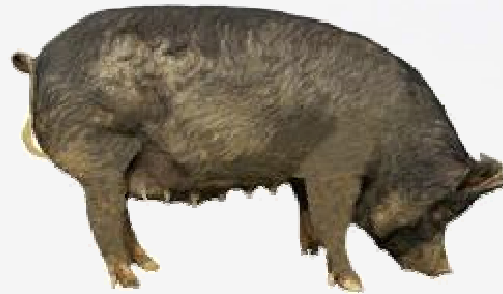
FCR



Lean meat %



Summary



Litter size	8.5		12.0
Mortality	13.1	-25%	21.0
Weaned/litter	7.1		9.5
Daily gain	584	-23%	754
FCR	4.2	-18%	3.0
Lean meat	45.8		55.6

Conclusions/Implications

Traditional breeds...

... Productivity and carcass quality are not suitable for the commodity pork market



... Dark skin colour offers greater resistance to sunburn



... Meat quality added value for niche pork markets

Jamon Ibérico bellota €500



A close-up photograph of a person's hand resting on a horse's back. The hand is positioned on the right side of the frame, with fingers slightly spread. The horse's coat is light-colored and has a fine, wavy texture. A semi-transparent white rectangular box is centered over the image, containing the text "Thank you for your attention!".

Thank you for
your attention!

