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Robledo, J.

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# EFFECT OF HOUSING CONDITIONS ON IBERIAN PIGLET'S DIARRHOEA



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University of Extremadura, Spain.  
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# Weaning



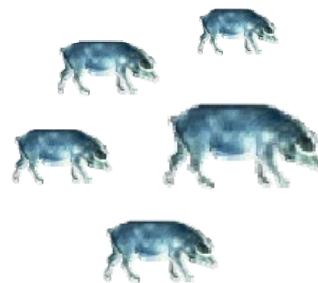
## CHANGE IN PIGLET'S GUT MORPHOLOGY

- MILK FOR DRY FOOD
- MODIFICATION DIGESTIVE ENZYMES
- LOW VOLUNTARY FEED INTAKE



## REDUCTION IN ABSORPTION CAPACITY

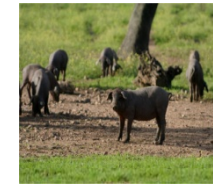
- MALDIGESTION AND MALABSORPTION
- ENTERIC PATHOGENS AND DIARRHOEA
- POOR PERFORMANCES



ENVIRONMENTAL  
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DIFFERENT  
WEANING SYSTEMS





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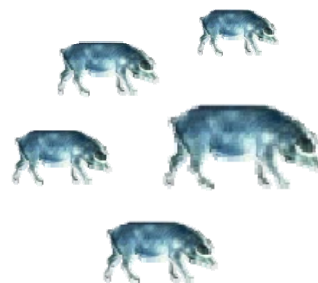
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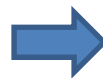
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 EFFECT OF WEANING SYSTEMS ON POST WEANING  
IBERIAN PIGLET'S DIARRHOEA

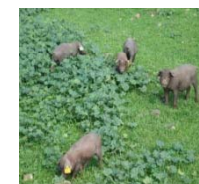
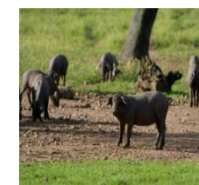
 EFFECT OF WEANING SYSTEMS ON POST WEANING  
IBERIAN PIGLETS PERORMANCES



ENVIRONMENTAL  
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DIFFERENT  
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 **360 Iberian piglets**

 **Study period: 21-63 days**

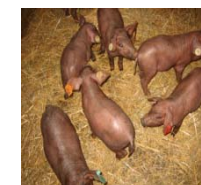
 **Body weight (Kg)**

**Food intake (Kg)**

**Conversion ratio (Kg food/ Kg weight)**

**Piglets' diarrhoea (+/-)**

Prevalence / Incidence / Mortality / Lethality





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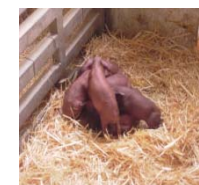
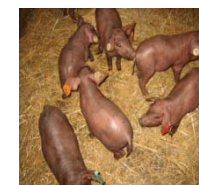
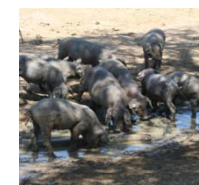
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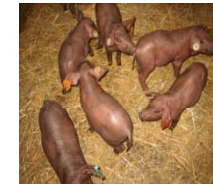
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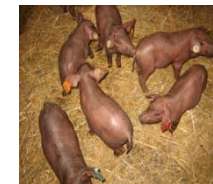
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21d      28d      35d      42d      49d      56d      63d





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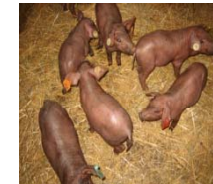
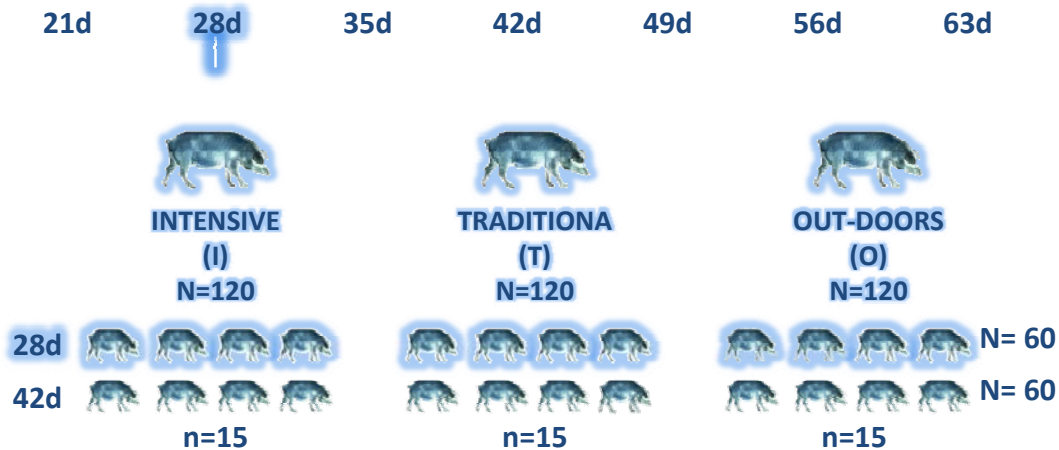
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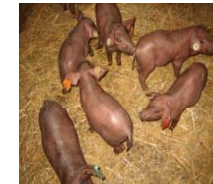
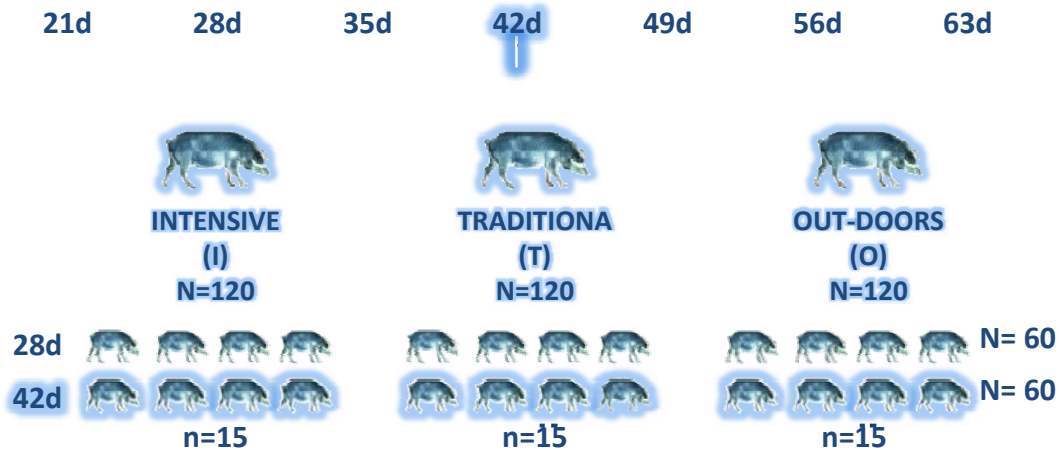
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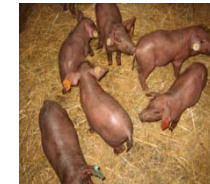
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	INTENSIVE	TRADITIONA	OUT-DOORS
HOUSING	Pens (7.5 m2)	Pens (2.5 m2) yard (5m2)	Out-door Pens (7.5 m2)
FLOOR	Slatted	Concrete Straw	Dirt floor Straw
BEHAVIOUR	no contact between pens	Nasal contact between pens	Natural environment



INTENSIVE  
(I)  
N=120



n=15



TRADITIONA  
(T)  
N=120



n=15



OUT-DOORS  
(O)  
N=120



n=15



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INTENSIVE  
(I)  
N=120



n=15



TRADITIONA  
(T)  
N=120



n=15



OUT-DOORS  
(O)  
N=120



n=15



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INTENSIVE  
(I)  
N=120



n=15



TRADITIONA  
(T)  
N=120



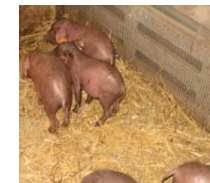
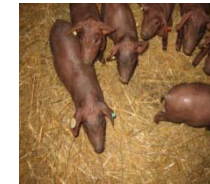
n=15



OUT-DOORS  
(O)  
N=120



n=15





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INTENSIVE

(I)

N=120



n=15



TRADITIONA

(T)

N=120



n=15



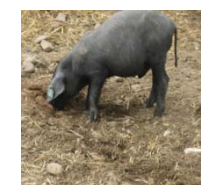
OUT-DOORS

(O)

N=120



n=15





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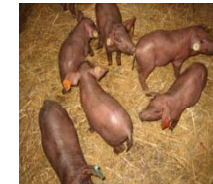
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-  **Study period: 21-63 days**
-  **Body weight (Kg)**
- Food intake (Kg)**
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- Piglets' diarrhoea (+/-)**
- Prevalence / Incidence / Mortality / Lethality





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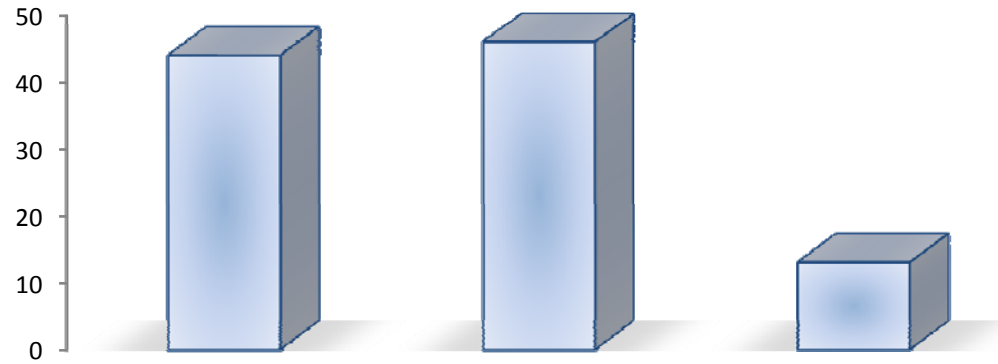
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## Total of piglets with diarrhoea



**INTENSIVE  
(I)  
N=120**



**TRADITIONA  
(T)  
N=120**



**OUT-DOORS  
(O)  
N=120**

28d 

42d 















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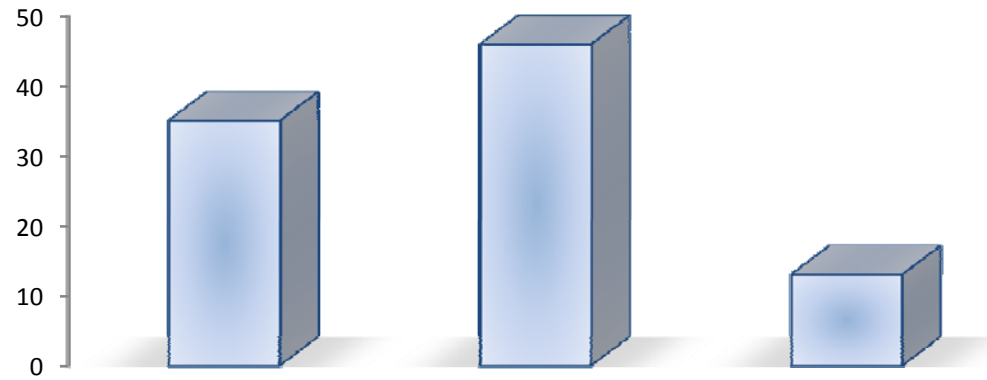
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## Total of new cases



INTENSIVE  
(I)  
N=120



TRADITIONA  
(T)  
N=120



OUT-DOORS  
(O)  
N=120





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## Prevalence & Incidence

P.	G.	PV. *	I. *
Weaning	INTENSIVE	37,9 %	30,2 %
	TRADITIONAL	39,7 %	37,9 %
	OUT - DOORS	11,3 %	12 %

Period (P.); Group (G.); Prevalence (PV.), Incidence (I.)

\* P < 0,001

PV = Piglets with diarrhoea \*100 /Total of Piglets    I = T. new piglets with diarrhoea \*100 /T. Piglets





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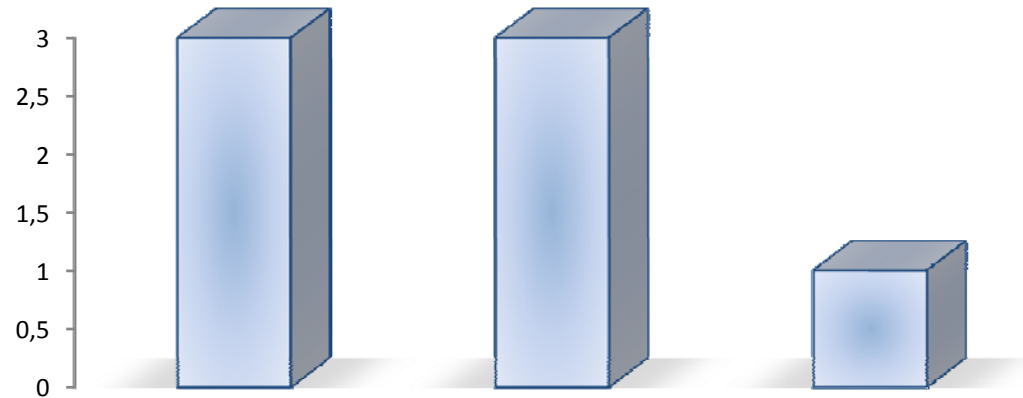
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## Total of piglets dead



**INTENSIVE  
(I)  
N=120**



**TRADITIONA  
(T)  
N=120**



**OUT-DOORS  
(O)  
N=120**

28d 

42d 













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## Mortality & Lethality

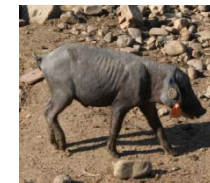
P.	G.	M.*	L.
Weaning	INTENSIVE	2,6 %	6,8 %
	TRADITIONAL	2,6 %	6,53 %
	OUT - DOORS	0,9 %	7,6 %

Period (P.); Group (G.); Mortality (M.), Lethality (L.)

\* P < 0,001

M = Dead piglets \*100 / Total of Piglets

L = Total dead piglets \*100 / Total Piglets with diarrhoea





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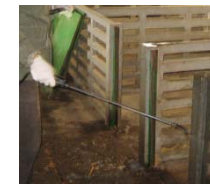
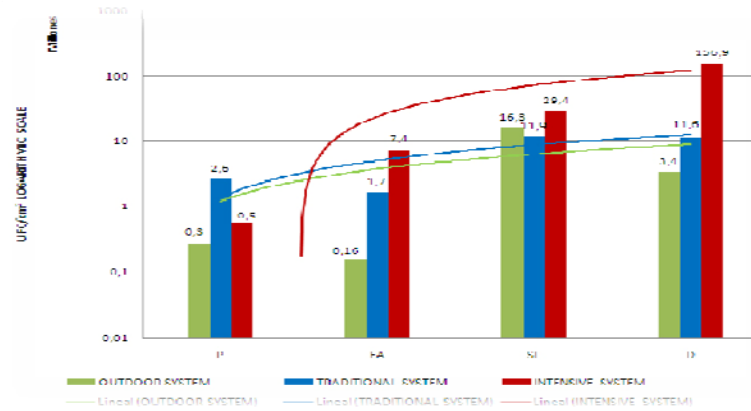
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## Microorganisms





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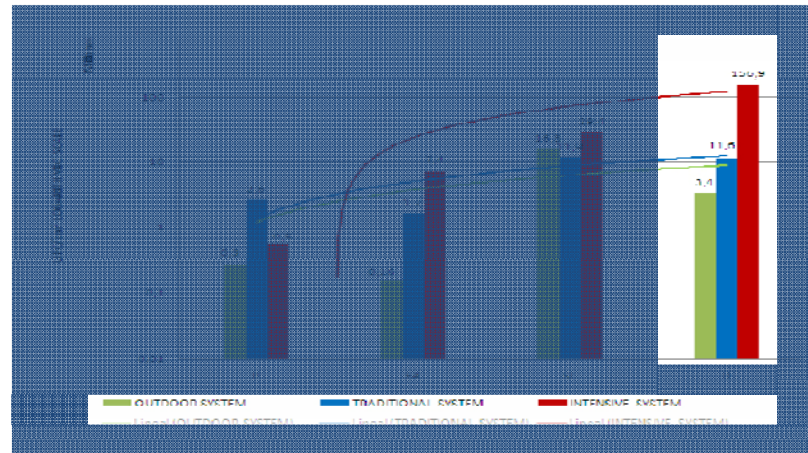
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## Mesophilic Aerobic Microorganisms



INTENSIVE  
(I)  
N=120



n=15



TRADITIONA  
(T)  
N=120



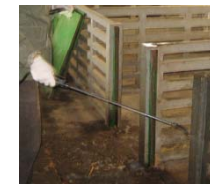
n=15



OUT-DOORS  
(O)  
N=120



n=15





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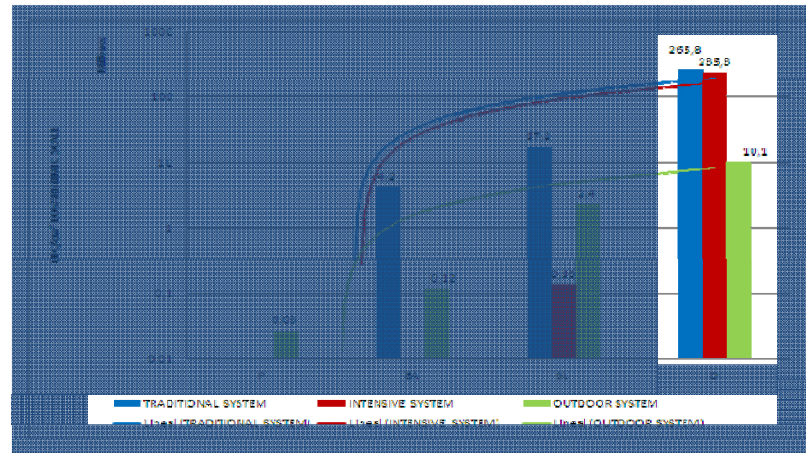
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## Enterobacteriaceae



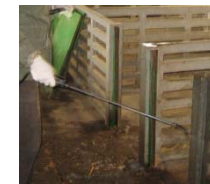
INTENSIVE  
(I)  
N=120



TRADITIONA  
(T)  
N=120



OUT-DOORS  
(O)  
N=120





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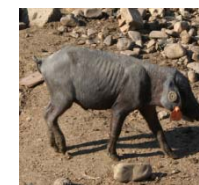
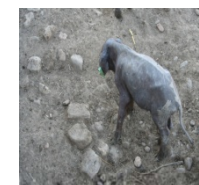
CONCLUSIONS

## Conversion Ratio

P	G.	CR *	E
Weaning	INTENSIVE	2,01 a	± 0,03
	TRADITIONAL	2,81 b	± 0,12
	OUT - DOORS	2,17 a	± 0,05

Period (P.); Group (G.); Food Conversion Ratio (CR), Error (E.)

\* P < 0,001







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## Food Intake

P	G.	FI. *	E.
Weaning	INTENSIVE	33,59 a	± 0,46
	TRADITIONAL	31,66 b	± 0,46
	OUT - DOORS	29,74 c	± 0,46

Period (P.); Group (G.); Food Intake (FI), Error (E.)

\* P < 0,001





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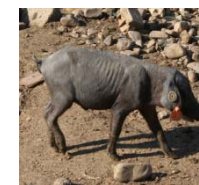
CONCLUSIONS

## Increase Body Weight

IBW	G.	A	E
(21-63) <sub>d</sub> *	INTENSIVE	17,39 a	± 0,32
	TRADITIONAL	12,97 c	± 0,38
	OUT - DOORS	15,05 b	± 0,36

Increase net weight (IBW); Group (G.); Average (A.), Error (E.)

\* P < 0,001





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**The weaning system influence on piglet's diarrhoea and on piglets growth**



**Out-doors system has less health problems than other housing conditions**





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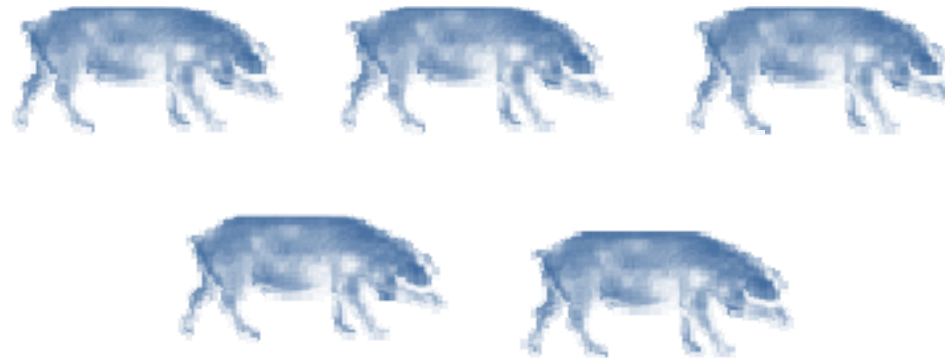
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Aparicio, M.A.

**THANK YOU  
FOR YOUR ATTENTION**



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University of Extremadura, Spain.  
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