



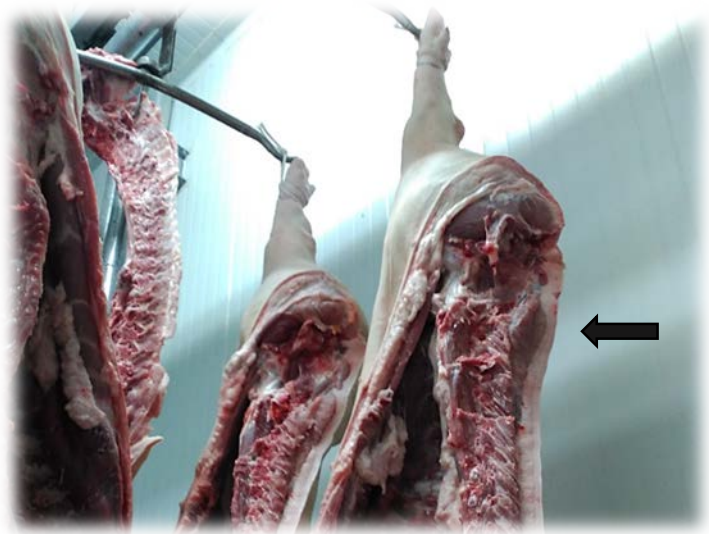
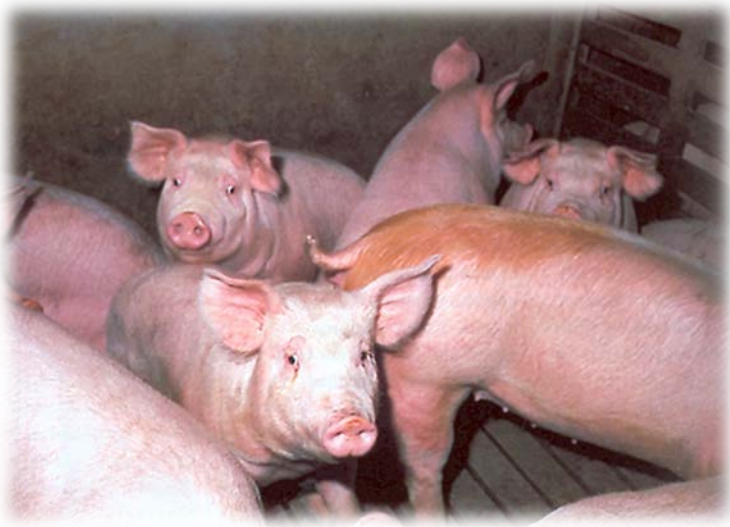
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Impact of immunocastration on growth performances and carcass quality of heavy gilts

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Introduction

PDO Teruel dry-cured ham

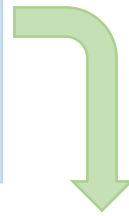


- Dam line: LD or LW or the cross
- Sire line: DU

- Hot carcass weight ≥ 86 kg
- Fat depth at GM *muscle* >16 mm

Introduction

30% carcasses intended for Teruel dry-cured ham are rejected



Main cause:
Lack of backfat thickness
(Latorre *et al.*, 2008)



Especially in females
(Latorre *et al.*, 2009)

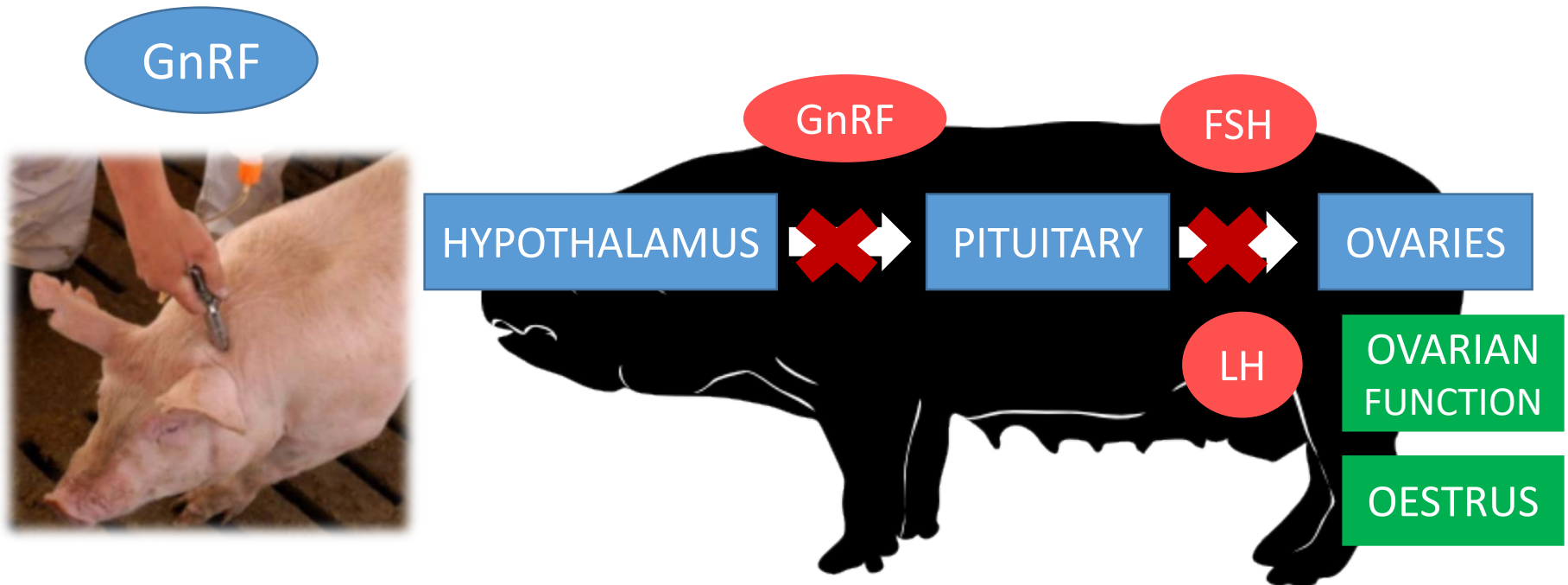


Possible solution:
IMMUNOCASTRATION
(Gamero-Negrón *et al.*, 2015)



Introduction

Immunocastration



Objective

To assess the impact of immunocastration on growth performances and carcass quality in gilts intended for Teruel dry-cured ham production.



Material & Methods

- **64 DU x (LD x LW) gilts**
with 57.9 ± 4.94 kg BW.
- **Two treatments**
(4 pens/treatment):
 - **Intact** females (control)
 - **Immunocastrated** females
- **Vacsincel[®] (Zoetis)**
- **Immunocastration doses:**
 - **1st** at 102 days of age
(approx. **58 kg BW**)
 - **2nd** at 122 days of age
(approx. **76 kg BW**)

8 gilts/pen



Material & Methods

Table 1. Main ingredients and estimated nutrients of the diets.

	Growing diet (76-102 kg)	Finishing diet (102-134 kg)
Main ingredients, %		
Corn	33.8	32.5
Soybean meal 47% CP	18.6	14.4
Wheat	18.0	18.0
Barley	15.0	21.8
Nutrients, %		
Net Energy (Mcal/kg)	2.48	2.48
Humedad	11.4	11.3
Ash	4.05	3.83
Crude protein	16.0	14.5
Neutro detergent fibre	11.8	12.1
Ether extract	6.10	5.81
Digestible lysine	0.77	0.63



Material & Methods

At the farm:

- Individual BW → ADG
- Feed intake / pen → ADFI
- FCR

At the slaughterhouse:

- Hot carcass weight → carcass yield
- Ham size and weight → ham yield
- Fat depth (over the m.GM)



Statistical analysis:

- GLM procedure of SAS
- Experimental unit:
 - Growth performances → the pen
 - Carcass quality → the animal



Results & Discussion

Table 2. Effect of immunocastration on body weight of heavy gilts.

	Immunocastrated females	Intact females	SEM (n=4)	<i>P</i>
Body weight, kg				
At day 0 of the trial (1st dose)	58.5	57.3	0.31	0.07
At day 20 of the trial (2nd dose)	77.0	74.9	0.64	ns
At day 48 of the trial	103.5	100.4	0.74	*
At slaughter	133.7	135.1	2.63	ns

Days of the trial	86.5	93.5
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Results & Discussion

Table 3. Impact of immunocastration on growth performances of heavy gilts.

	Immunocastrated females	Intact females	SEM (n=4)	<i>P</i>
ADG from 0 to 20 d of trial (1 st to 2 nd dose), kg/d	0.922	0.881	0.021	ns
From 20 to 48 d of trial				
ADG, kg/d	0.947	0.909	0.033	ns
ADFI, kg/d	2.92	2.72	0.135	ns
FCR	3.08	3.00	0.095	ns
From 48 d of trial to slaughter				
ADG, kg/d	0.902	0.805	0.022	*
ADFI, kg/d	3.13	2.74	0.056	*
FCR	3.47	3.40	0.051	ns

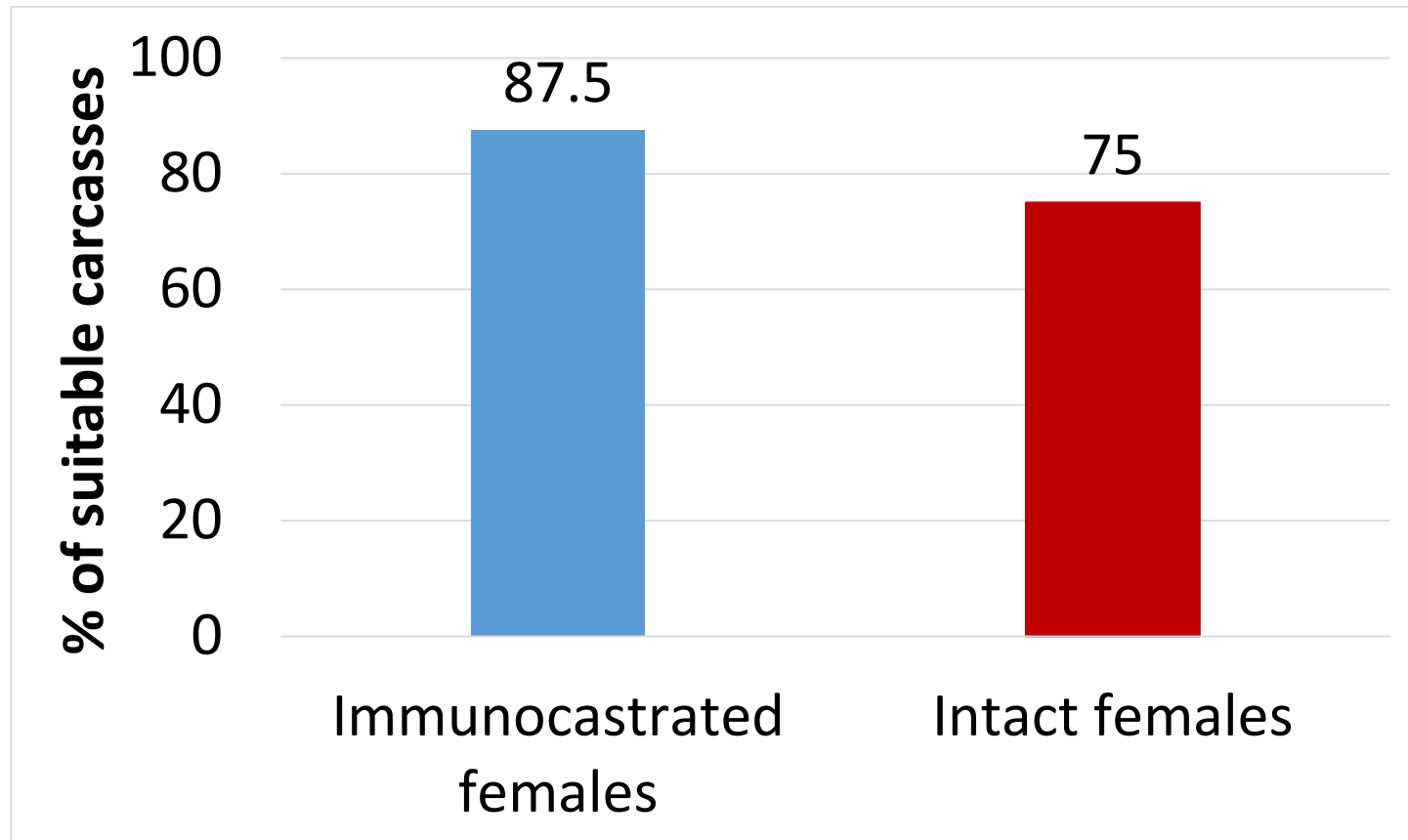
Results & Discussion

Table 4. Effect of immunocastration on carcass characteristics of heavy gilts.

	Immunocastrated Females	Intact Females	SEM (n=16)	P
Slaughter weight, kg	134.6	130.3	3.48	ns
Carcass				
Weight, kg	104.0	100.0	2.97	ns
Yield, %	77.4	76.2	1.46	ns
Fat thickness at m.GM, mm	25.0	19.7	1.78	*
Ham				
Length, cm	40.3	39.5	0.40	ns
Perimeter, cm	77.2	77.6	0.83	ns
Weight, kg	13.2	13.2	0.32	ns
Yield, % of carcass	12.8	13.4	0.32	ns

Results & Discussion

Graphic 1. Impact of immunocastration on the proportion of suitable carcasses intended for Teruel dry-cured ham.



Conclusions

Immunocastration in gilts:

- increased ADG and ADFI from 102 to 134 kg BW (slaughter), with no penalization on FCR, shortening the growing-finishing period.
- enhanced the carcass fatness which is desirable in pigs intended for dry-cured ham production.

Thank you for your attention!



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