

# EFFECT OF WEANING AGE, PERIOD AT FATTENING UNIT AND SLAUGHTER AGE ON LAMB DEPOT'S COMPOSITION



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## INTRODUCTION

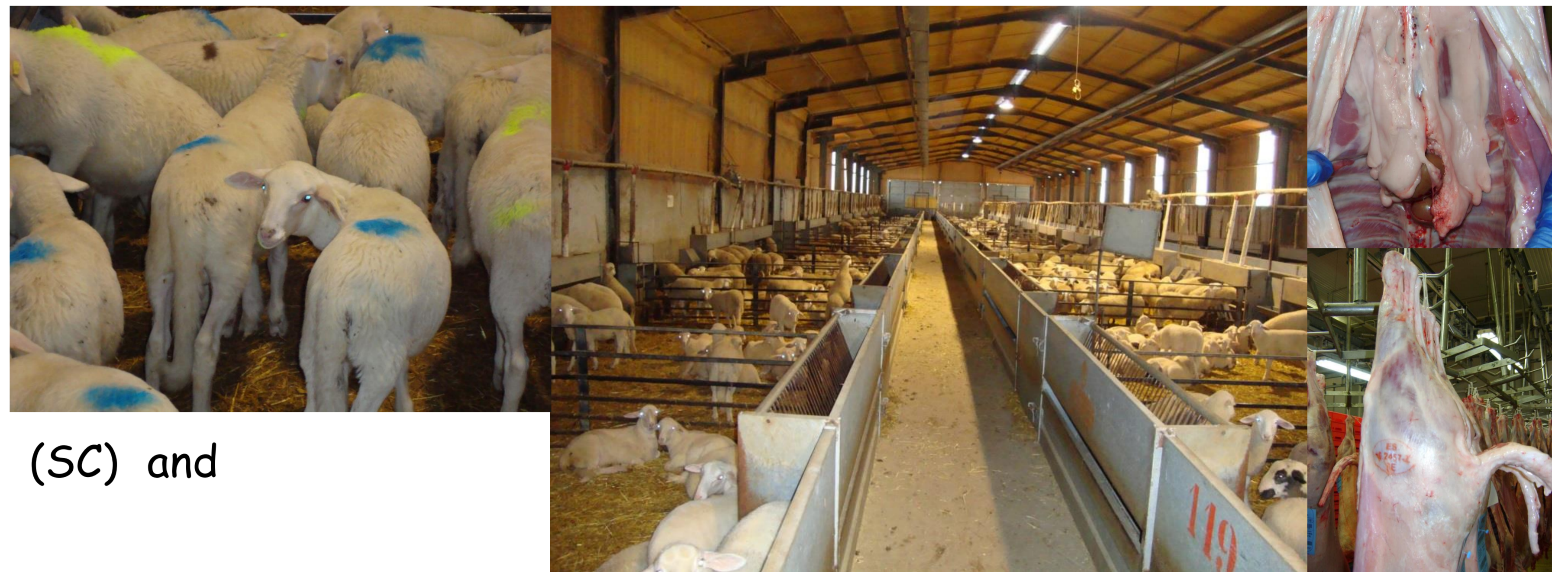
Traditional lamb production has evolved towards more intensive farming  
The management in the farm of origin can be very different between animals from the same commercial category  
Animals are finished in a cooperative fattening unit to obtain an homogenous product

## OBJECTIVE

To assess differences in fatty acid composition in two fat depots due to age at weaning, period in the fattening unit and age of slaughter

## MATERIAL AND METHODS

- 85 lambs of Rasa Aragonesa breed
- Weaning age: 40 vs 50 days old
- Period in fattening unit: 1 vs 20 days
- Slaughter age: 67 vs 104 days old
- Fatty acid composition of Subcutaneous (SC) and Kidney and Knob channel fat (KKC)
- Gas chromatography



Fatty acid composition (% of total fatty acids) of Subcutaneous fat and Kidney and Knob channel fat depending on weaning age, period in fattening unit (FU) and slaughter age (SA)

FU	Weaning age 40 days old				Weaning age 50 days old				Weaning age	Period in fattening unit	Slaughter age
	1 day		20 days		1 day		20 days				
SA	67 d	104 d	67 d	104 d	67 d	104 d	67 d	104 d			
<b>SUBCUTANEOUS FAT</b>											
SFA	51.94	47.24	48.45	43.45	57.47	48.87	47.11	45.48	*	***	***
MUFA	42.63	47.54	46.07	9.81	38.22	46.05	46.61	47.98	*	***	***
PUFA	4.98	4.72	5.12	6.21	4.04	4.56	5.86	5.97	ns	***	ns
n-6	3.99	4.17	4.25	5.43	3.11	3.97	4.86	5.30	ns	***	**
n-3	0.98	0.55	0.87	0.78	0.92	0.60	1.00	0.67	ns	ns	***
<b>KIDNEY AND KNOB CHANNEL FAT</b>											
SFA	55.91	55.52	54.57	51.25	60.99	57.06	53.15	53.02	*	***	*
MUFA	38.98	39.49	40.14	42.19	34.86	38.02	40.62	40.54	*	***	*
PUFA	4.73	4.60	4.95	6.23	3.81	4.55	5.84	6.04	ns	***	*
n-6	4.13	4.26	4.31	5.70	3.05	4.12	5.07	5.55	ns	***	***
n-3	0.59	0.33	0.64	0.52	0.77	0.42	0.78	0.49	***	**	***

SFA: Saturated fatty acids; MUFA: Monounsaturated fatty acids; PUFA: Polyunsaturated fatty acids;

## CONCLUSIONS

- Weaning at 50 days old increases SFA %, especially in KKC
- Increasing the age at slaughter decreases SFA and increases MUFA %, more clearly in SC than in KKC depot
- KKC reflects better the management prior to the fattening unit, and SC is a good indicator of the last fattening phase