

R. Ripoll-Bosch<sup>1\*</sup>, D. Villalba<sup>2</sup>, I. Blasco<sup>1</sup>, S. Congost<sup>3</sup>, F. Falo<sup>4</sup>, R. Revilla<sup>3</sup>, M. Joy<sup>1</sup>

<sup>1</sup>CITA. Av. Montañana 930, 50059 Zaragoza, Spain. <sup>2</sup>UdL-ETSEA. Av. Rovira Roure 191, 25198 Lleida, Spain. <sup>3</sup>CTA. Apdo. 617, 50080 Zaragoza, Spain. <sup>4</sup>AGROJI. Plaza del Ayuntamiento 1. 44556 Molinos, Spain.

## Objective

To characterize live weight (LW) and body condition score (BCS) of ewes at lambing and at weaning; live weight at birth (LWb) and average daily gain (ADG) of lambs of Ojinegra sheep breed; and to determine and quantify factors of variability in results

## Material and Methods

### Location of Ojinegra sheep breed



### Sampling

- 8 farms, 4365 ewes and 6406 lambs of Ojinegra sheep breed

### Measurements

- Ewes: 2556 LW and 2662 BCS measurements at lambing; 2120 LW and 2207 BCS measurements at weaning
- Lambs: 6381 LW at birth and 9453 LW random measurements along lactation (90 days maximum)
- ADG: was estimated for each lamb through quadratic regression model

### Statistics

- Data was analyzed with MIXED procedure, with farm as random effect

## Results

Ewes	LW (kg)		BCS (score;1-5)	
	Mean	SE	Mean	SE
<b>Lambing</b>	43.3	± 1.5	2.55	± 0,07
	Variance explained (%)			
Farm	30.7		17.3	
Rest of effects <sup>1</sup>	5.1		1.2	
<b>Weaning</b>	42.3	± 1.2	2.73	± 0,07
	Variance explained (%)			
Farm	20.9		17.4	
Rest of effects <sup>1</sup>	7.3		2.4	

<sup>1</sup> Ewe's age, lambing season, lamb gender, type of birth and its double interactions

Lambs	LW at birth (kg)		ADG (g/day)	
	Mean	SE	Mean	SE
	3.5	± 0.67	168	± 51
	Variance explained (%)			
Farm	20.5		16.4	
Rest of effects <sup>2</sup>	10.8		8.7	

<sup>2</sup> Ewe's age, lambing season, lamb gender, type of birth, BCS of ewe at lambing and its double interactions

- LW of ewes at lambing and at weaning was affected by ewe's age, lambing season and the farm ( $p < 0.05$ ); lamb gender and type of birth had no effect ( $p > 0.05$ )

- BCS of ewes at lambing and at weaning was affected by ewe's age, lambing season and the farm ( $p < 0.05$ ); type of birth had effect on BCS at lambing but not at weaning; lamb gender had no effect ( $p > 0.05$ )

- LW at birth of lambs was affected by ewe's age, lamb gender, type of birth, BCS of ewe at lambing, the farm and interaction "type of birth \* lambing season" ( $p < 0.05$ ); lambing season had no effect ( $p > 0.05$ )

- ADG of lambs was affected by ewe's age, lambing season, lamb gender, type of birth, BCS of ewe at lambing and the farm ( $p < 0.05$ )

## Conclusion

**Farm withhold the highest variance among variables studied. Therefore, farm effect should be strongly considered when characterizing productive parameters of a breed**