Ojinegra sheep local breed: identifying factors of variability of performance

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In local and endangered livestock breeds it is necessary to study their productive performance in order to be able to promote their utilization and conservation. The lack of reliable data may lead to erroneous replacement criteria and on-farm decisions. This is specially the case of the Ojinegra sheep breed from Teruel (Spain). The aim of this study was to characterize the productive parameters of this breed and to determine the variability in results. Live weight (LW) and body condition scores (BCS) at lambing and weaning of ewes and live weight at born (LWb) and average daily gain (ADG) of lambs, from lambing to weaning, were controlled. Data was recorded in 8 conventional farms along 1 year. Data was analyzed with the MIXED procedure of SAS, with the farm being the random effect. Ewe's LW and BCS at lambing (43.3 \pm 7.4 kg and 2.55 ± 0.45) and weaning (42.3 ± 7.3 kg and 2.73 ± 0.45) were influenced by the age of the ewe, the season of the year where lambing took place and the farm ($P \le 0.05$). BCS at lambing was also influenced by the number of lambs born (P<0.05). LWb and ADG (3.5±0.67 kg and 168±51 g/day) was influenced by lamb's gender, lambs reared per ewe, age of the ewe, BCS of ewe at lambing and the farm ($P \le 0.05$). ADG was also affected by the season of lambing and LWb by the interaction 'season of lambing*number of lambs reared' (P \leq 0.05). The farm was decisive in results, representing up to 48% of variability in some parameters studied. Variability between farms could be explained either by on-farm management or by genetic heterogeneity of the breed. The farm should be strongly considered when characterizing productive parameters of a breed.