

INCREASED MUSCULAR MASS IN A BRAZILIAN TEXEL FLOCK IS NOT ASSOCIATED WITH THE CALLIPYGE (CLPG) MUTATION

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The phenotype of muscular hypertrophy in sheep has been attributed to several major genes among them the Callipyge mutation. The increasing market demand for leaner lamb meat could turn animals with increased muscular growth into an important genetic resource to improve carcass traits and increase lamb meat quality. We investigated the CLPG mutation on a Texel flock that have some animals presenting a phenotype of increased muscular mass particularly visible on the hindquarters. The involvement of the CLPG mutation in the phenotype was tested using a PCR-RFLP approach. Two rams presenting the phenotype of increased muscular growth and at least three sons of each ram were used in this preliminary investigation. Genomic DNA from ten animals was extracted from leukocytes and used as template for a PCR reaction described elsewhere (Smit et al. 2003, *Genetics* **163**: 453–456). The resulting 279 bp PCR product was digested with *Ava*I restriction enzyme and subjected to electrophoresis in a 3% agarose gel. In all animals tested the band pattern showed that the amplicon was cleaved into fragments of 62, 147, 11, and 59 bp which is compatible with the wild type form of the sequence. The increased muscular growth observed in these animals is not due to the known CLPG mutation and further work is been done on the family history of these animals to better characterise the pattern of inheritance of the phenotype and on additional genetic markers related to muscular growth in sheep.

Key words: Sheep, meat, muscular hipertrophy, Texel, callipyge

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