Scrapie is a transmissible spongiform encephalopathy of sheep and goats, characterized by the deposition, in the central nervous system, of an abnormal isoform of a host-encoded cellular prion protein (PrP). In sheep, some polymorphisms of PRNP gene have been associated to classical scrapie resistance/susceptibility. In goats, more than 50 putative polymorphisms were described. The aim of this work was the evaluation of the frequencies of three of the main polymorphisms of PRNP gene, with particular attention to codon Q222K, associated to Scrapie resistance, in 5 Italian populations and in crossbred goats.

**INTRODUCTION**

**MATERIALS AND METHODS**

Sampling from different Italian goat populations (125 animals)

**RESULTS**

As regards the distribution of the allelic frequencies and the genotypic frequencies in the Italian goat populations analyzed, the percentages were calculated.

**DISCUSSION AND CONCLUSION**

No selection plan for scrapie resistance in goats have been actually developed and the occurrence of the disease is still treated with a stamping out approach.

Knowledge of the distribution of the allelic variants of PRNP in goats has become very important. Protective PRNP alleles showed variable frequencies in the Italian goat populations considered in this study. These data could be useful for planning future genetic selection programmes to control and try to eradicate scrapie in goats.