**Prion protein gene polymorphisms in purebred sheep breeds of Nova Scotia**

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The objective of this study was to determine genotypes of the entire purebred sheep population in Nova Scotia (Canada) at codons 136, 154 and 171 of the PrP gene. Genotypes of 1151 registered sheep of both sexes from 10 breeds (Border Leicester, Canadian, Clun Forest, Dorset, Finnish Landrace, Karakul, NC Cheviot, Rideau, Suffolk, Texel) on 26 farms were determined using RFLP-PCR. $H_{171}$ was not identified and was combined with $Q_{171}$. All the four possible allele combinations were detected, but only $A_{136}R_{154}Q_{171}$ was present in all the 10 breeds. The most resistant allele ($A_{136}R_{154}R_{171}$) was observed in all the breeds, except Finnish Landrace, in which all animals had $AA_{136}RR_{154}QQ_{171}$ genotype. The frequency of the most resistant allele was high (0.57 to 0.69) in Border Leicester, Canadian, Dorset and Karakul, and low in Rideau (0.07) and Suffolk (0.24). Rideau, NC Cheviot and Texel selected sires had a higher proportion of susceptible $AV_{136}$ or $QQ_{171}$ genotypes than the ewes, which may suggest the presence of a negative association between resistant alleles and traits which breeders consider important.