

DIFFERENTIATION OF MANGALITZA PIGS FROM LARGE WHITE AND WILD BOAR IN BIOLOGICAL SAMPLES AND MEAT PRODUCTS USING DNA MARKERS

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Abstract

The demand for Mangalitza derived meat products on the market increased significantly in the last years. Although their number increased in the last decades, this is not enough to satisfy market demand for high quality pork products. In this context, fraudulent practices, which might consist of meat substitution or undeclared crosses with more productive pig breeds or wild boar, might occur. DNA-based methods might offer a viable solution to limit these possible fraudulent practices. In this respect, we tested the possibility to use some single nucleotide polymorphisms (SNP) located in SLC45A2 and MC1R genes as DNA markers for differentiation of Mangalitza from Large White pigs and from wild boar in biological samples and in some pork products. The genotyping data revealed that a combination of these two markers might be successfully used for this purpose.

Key words: Mangalitza pigs, wild boar, pork products, authenticity, DNA markers