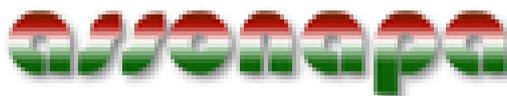




GOAT-TSE-FREE EMIDA project

National Working Document – Italy



The present document describes the first actions that have been agreed, in the frame of WP2, among the Italian consortium's partners Dr. Pier Luigi Acutis (IZSTO), Dr. Gabriele Vaccari (ISS), Dr. Ciriaco Ligios (IZSSA), Dr.ssa Mariella Vitale (IZSSI), Dr. Salvatore Murru (ASSONAPA).

The work will involve a national level, in collaboration with ASSONAPA, and regional levels, i.e. Sardinia and Sicily, in collaboration with regional breeder associations.

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National level

In Italy goat population consists of about 900.000 goats, 20-30000 of which bred selecting for productive traits. Goat breeding is mainly extensive, with reproductions managed only through direct exchanges among breeders, who tend to choose bucks on the basis of "aesthetic" criteria. Artificial insemination is not common: about 1000 A.I. are carried out each year, in few herds of cosmopolitan breeds (Saanen e Camosciata), in Northern Italy.

ASSONAPA controls about 72000 goats on whole the Italian territory (bucks and does). Genealogy and production traits are known for the majority of them. Biological samples are available for genetic analysis.

Aim: to identify scrapie resistant bucks in the group of bucks controlled by ASSONAPA and to evaluate their possible use to spread resistance associated alleles.

Actions: ASSONAPA will prepare a list of bucks to be genotyped. Samples will be sent to IZSTO, that will carry out the analysis of codon 222, to look for resistant bucks K222. The opportunity of analyzing codon 146 will be evaluated, considering the very low frequency of this polymorphism in Italy. Codon 154 will also be analyzed in all K222 bucks. If missing, data on production traits will be collected for K222 bucks. Results will be discussed by all the P2 consortium, to evaluate the feasibility of a breeding program in Italy.

Sardinia

Contacts with the regional breeder association (APA) of Nuoro and Ogliastra provinces have been taken. These provinces have been chosen for the presence of numerous and well managed goat herds. In Sarda breed K222 allele has a frequency of about 4%.

Aim: given that in Sardinia a database with production records is held, the work will aimed mainly at the correlation between K222 allele and production traits.

Actions: In the first phase herds to include in the study will be selected. At present, a list of 17 herds is available: in these herds monitoring and recording of production traits have been carrying out at least for 3 years. Herds have a mean of 180 animals, with 9-10 bucks used for reproduction. The herds to be included in the study will be selected on the basis of the collaborative attitude of the breeders, the geographical location, the frequency of K222.

Sicily

Contacts have been taken with breeders and regional authorities from the Agriculture sector. A sampling plan has been decided, on autochthonous breeds: Maltese, Girgentana, Red Mediterranean, Argentata dell'Etna and Messinese.

Aim: to estimate the frequency of resistant allele and the genetic variability of breeds from Sicily.

Actions: sequencing of the entire ORF of *PRNP* gene and data collection on production traits. A genetic variability study with microsatellites will also be carried out to evaluate and protect diversity.

After having decided the future actions, it is also agreed that, once obtained the first results, meetings with breeders and regional and National Authorities will be organized, to disseminate the information.