1 carcinosarcoma) and different ages (felines: 1–15 years old, canines: 7–17 years old).

Within the histopathological exam we found it difficult to identify milk-secreting cells present in the same neoplastic proliferated forms. The age of animals as well the cytomorphological forms of the mammary gland tumors did not the influence the presence or absence of milk-secreting cells.

The results of this scientific paper open up a new horizon for mammary gland tumors investigations in canines and felines, for clarifying the morpho-clinical states in the occurrence of mammary neoplasms in different stages of lactation.

Agricultural systems in the western part of Romania

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The establishment of a certain area's agricultural system is based on the analysis of several factors: climate, soil type, equipment, land agglomeration degree, market demand, applied technology.

Based on these criteria, we have elaborated a questionnaire comprising basic 9 questions covering the entire production cycle starting with land preparing up to harvesting and production capitalization.

The first question regards the climatic characterization of the year the study was carried out. The vast majority of respondents, respectively 90%, observed that it had been a normal year from this point of view.

The second question regarded the preceding plant for the crop, in order to observe whether or not the farmers respect the, crop technology, namely crop rotation. The majority, 85%, responded that they use a simple wheat–corn rotation. The answers to other questions show that all farmers followed the technologic succession of crop foundation.

Crop fertilization was done with recommended dosage so as to obtain a maximum production, but without carrying out soil analyses in order to establish the nutritive substance soil reserves.

The harvesting work was done at a proper soil or hybrid humidity, other production conditioning works being unnecessary.

Result centralization determined the presence of an intensive agriculture system aimed at obtaining a production maximum as related to the area's soil production potential.

Bovine citrullinaemia in Turkish Grey cattle

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Bovine citrullinaemia (BC) is an autosomal recessive disorder in Holstein cattle. It causes significant economic losses on dairy cattle breeding worldwide. The aim of this study was to investigate whether the allele of BC exist in Turkish Grey cattle or not, which is one of the Turkish native cattle breeds, reared in Balikesir region of Turkey. In our study, 50 Turkish Grey cattle from four different herds were sampled. After DNA extraction from blood, PCR-RFLP (PCR-Restriction Fragment Length Polymorphism) was used for determination of BC genotypes. Digested products were visualized by agarose gel electrophoresis. As a result, the mutant allele of BC was not detected in Turkish Grey cattle.

Prion protein gene polymorphisms in Turkish native sheep and goat breeds

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Scrapie is a fatal and neurodegenerative disease that affects sheep and goats. Susceptibility to scrapie in sheep is influenced by polymorphisms of the prion protein (PRNP) gene, whereas no strong association between genetics and scrapie has yet been determined in goats due to the limited number of studies. A total of 1110 healthy sheep from 18 Turkish native sheep breeds and 316 healthy goats from 9 Turkish native goat breeds were sampled to identify the PRNP gene polymorphism. Twenty-two and 12 amino acid polymorphisms were identified for sheep and goats, respectively. The most resistant allele to scrapie, ARR, was present in all sheep breeds. The VRQ allele, associated with the highest susceptibility to scrapie in sheep, was detected at low frequencies. The polymorphism at codons S146, H154, Q211 and K222, which are associated with the resistance to scrapie, were relatively rare in Turkish native goat breeds. These data reveal that sheep and goat breeds close to the historic center of small ruminant domestication have remained highly diverse in the prion gene locus. Our findings with PRNP gene polymorphisms will assist the sheep and goat breeding program for selection of scrapie resistance genotypes to reduce the risk of scrapie.