

A survey on the characteristics of sausage made from Sicilian and Sardinian native pigs

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ABSTRACT

Four different mixtures were prepared using meat from native pigs. Mixtures 1 and 2 were made in Sardinia using meat from pigs of Sarda breed, mixtures 3 and 4 in Sicily, using meat from the Nera Siciliana breed. The manufacturing were different not only for the typology of the meat but also for the meat cuts used and the ingredients. Batches 1 and 3 were made in non conditioned natural environments, while batches 2 and 4 in conditioned environments. Chemical-physical and microbiological analyses were carried out on the fresh mixture, after 7 days of ripening (end of drying in conditioned environment and at the end of seasoning (28 days). The thermoigrometric environmental parameters and the variation in the weight of the production were measured during ripening.

Regarding the Lactic Acid Bacteria and the *Micrococcaceae*, microorganisms of normal maturation, a rapid development, except for batch 1, was observed for all batches at 7 days of ripening. In batches 2 and 4 an increase of *Enterobacteriaceae* in the drying phase and a their decrease in the seasoning phase were noticed. In batch 3 their inactivation resulted slow. Such occurrences were probably due to the hygienic conditions and non inhibiting technological parameters.

The initial humidity was less than 60% with the exception of batch 3; the quantity of NaCl ranged between 2 and 2.8%. The amount of fat varied between 14 and 24% at the beginning of the ripening, then reached values ranging between of 20 and 38% at the end of the seasoning phase. All the batches showed a decrease of a_w included between 0.97 (mixture) and 0.87 (final product); the highest value of a_w recorded in test 1 was attributable to the lower T recorded both during the drying and seasoning phase.

The pH reached the lowest values at the end of the 7 days and then increased, with the exception of batch 3, which decreased during the whole seasoning phase.

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