

# Slaughter traits of “Sarda” and “Nero Siciliano” pigs reared outdoors. Preliminary results

G. Madonia<sup>1</sup>, S. Porcu<sup>2</sup>, L. Liotta<sup>3</sup>, S. Margiotta<sup>1</sup>,  
V. Chiofalo<sup>3</sup>, S. Ligios<sup>2</sup>

<sup>1</sup> Istituto Sperimentale Zootechnico per la Sicilia. Palermo, Italy

<sup>2</sup> Istituto Zootechnico e Caseario per la Sardegna. Olmedo (SS), Italy

<sup>3</sup> Dipartimento di Morfologia, Biochimica, Fisiologia e Produzioni animali.  
Università di Messina, Italy

*Corresponding author:* Giuseppe Madonia. Istituto Sperimentale Zootechnico per la Sicilia. Via Roccazzo 85, 90136 Palermo, Italy - Tel. +39 091 6740225 - Fax: +39 091 6740212 - Email: g.madonia@iszsicilia.it.

## ABSTRACT

The evaluation of the carcasses and the percentage effect of the cuts can provide useful data for establishing breeding techniques which can improve the productive performance of autochthonous pigs. The aim of the study was to evaluate some *post mortem* performances of Sarda and Nero Siciliano pigs, reared outdoors. The study was carried out on 30 male, castrated pigs over the age of 2 years and with a live weight at slaughtering of  $106.4 \pm 4.2$  kg for the “Sarda” (15 subjects) and  $107.2 \pm 3.6$  kg for the “Nero Siciliano” (15 subjects) pigs. The Sarda pigs were reared in a wooded area in the Ogliastra mountains (Sardinia-Italy) and the Nero Siciliano pigs in the Nebrodi mountains (Sicily-Italy), at an altitude of  $550 \pm 50$  m a.s.l., where they fed on underwood vegetation consisting mainly of acorns. After being slaughtered, which for both groups took place in March 2006, we determined the productivity for each subject, the thickness of dorsal fat located at the first (1T) and the last (UT) thoracic vertebra and at the top of the middle gluteus (GM). Subsequently, on the right side of each subject, we carried out the dissection of the lean cuts (loin, ham, shoulder and neck), adipose cuts (belly, backfat, jowl, flare fat) and bone cuts (head and feet). The data obtained were submitted to variance analyses using the procedure GLM of SAS (2001). The pigs belonging to the two genetic types registered top yield, both hot (Sarda 82.1% vs. Nero Siciliano 82.9%;  $P=0.37$ ) and cold (Sarda 80.5% vs. Nero Siciliano 80.8%;  $P=0.76$ ), while the Nero Siciliano subjects demonstrated a higher thickness of dorsal fat at 1T (Sarda 4.1cm vs. Nero Siciliano 5.2cm;  $P=0.0002$ ), UT (Sarda 3.2cm vs. Nero Siciliano 4.7cm;  $P=0.0001$ ) and GM (Sarda 2.8cm vs. 4.6cm;  $P=0.0001$ ). The composition of the side cuts highlighted a major incidence of loin (Sarda 13.7% vs. Nero Siciliano 14.6%;  $P=0.017$ ), ham (Sarda 26.6% vs. Nero Siciliano 30.5%;  $P=0.0001$ ) and shoulder (Sarda 16.7% vs. Nero Siciliano 17.4%;  $P=0.23$ ) for the Nero Siciliano pig, while no significant difference emerged between the two genetic types for the adipose cuts such as belly (Sarda 11.4% vs. Nero Siciliano 10.7%;  $P=0.23$ ), backfat (Sarda 7.6% vs. Nero Siciliano 8.5%;  $P=0.29$ ), jowl (Sarda 4.01% vs. Nero Siciliano 4.28%;  $P=0.27$ ) and flare fat (Sarda 5.29% vs. Nero Siciliano 6.01%;  $P=0.052$ ), the same as for the bone cuts, head (Sarda 5.7% vs. Nero Siciliano 5.6%;  $P=0.48$ ) and feet (Sarda 0.9% vs. Nero Siciliano 0.99%;  $P=0.18$ ). Therefore, the Nero Siciliano pigs demonstrated a higher incidence of meat cuts, a probable expression of a different process of selection of this genetic type. This study has contributed to the supply of useful information for the eventual trends of fresh use and/or the transformation of carcasses, contributing to the zootechnic protection of this population of pigs, both for the quality of their production and the profitable use of marginal areas.

Research supported by the Institute of Experimental Husbandry of the Sicilian Council and the Local Authority of the Sardinian Council.