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**Book of Abstracts**

**Guest Editor: Giovanni Savoini**

**P-013****Effect of different breed on Ragusano cheese quality**

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Specific objectives. Ragusano PDO cheese is a traditional dairy product of Sicily, the aim of the study was to characterised parameters of milk and Ragusano PDO cheese in different breeds. Experimental methods. The research was carried out in two farms in province of Ragusa, samples of Bruna (BR) and Modicana (MD) milk were taken during winter and stored prior to analysis. Chemical composition (dry matter, fat, protein, ash, casein, NNC) and lactodinamographic parameters of milk were determined. Ragusano PDO cheese was obtained after ripening period (four months) and chemical analysis (dry matter, ash, ether extract, crude protein) were carried out. Statistical analysis. Chemical and technological parameters of milk, chemical composition of cheese were examined by one-way ANOVA. When significant effects were found ( $P \leq 0.05$ ), differences were determined using t-student. Data analyses were performed using JMP software of SAS (SAS Instit., NC, USA). Results and conclusions. The moisture of milk was higher in BR than MD (87.19% *vs.* 86.20%), although the ash content was greater in MD (0.82% *vs.* 0.76%). Crude fat showed a higher result in BR as the casein content (3.61% *vs.* 3.12%) and the casein/crude protein ratio (85.01% *vs.* 80.86%). Non-casein nitrogen was higher for MD than BR (0.74% *vs.* 0.64%), while crude protein didn't show differences between the breeds. The technological parameters of milk showed differences for k20 and a30 parameters. The rennet clotting time (r) didn't show significant difference for the breeds (13:30 min *vs.* 15:15 min). Curd firmness (k20) evidenced a longer period for BR than MD (06:15 min *vs.* 02:55 min), although final curd firmness 30 min after rennet addition (a30) was found higher in MD (28.96 mm *vs.* 21.74 mm). The chemical composition of cheese showed differences in dry matter and ash content. BR showed higher moisture level than MD (34.09 % *vs.* 32.59 %) while the ash level were higher in MD breed (5.95 % *vs.* 5.28 %). The difference of dry matter and ash level of the breeds can be assessed to the effect of seasoning, instead no correlation were found for protein and fat. It's know how MD has lower productive performance than BR, although in this trial the quality parameters of milk and cheese of autochthonous breed, as Modicana, is comparable with Bruna. Moreover samples of cheese didn't show differences for fat and protein content; for these reasons MD seems to be more carefully to be chosen for the production of Ragusano PDO cheese.chosen for the production of Ragusano PDO cheese.

**P-014****Technological and quality characteristics of Bresaola from Cinisara cattle breed**

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Recently in Sicily is increased interest for the Cinisara breeding, due to interest in the good quality of meat. The aim of this investigation was to give greater value to Cinisara meat by using it to produce typical bresaola called Busambrina. Ten Cinisara cows slaughtered from 2 to 4 years of age were utilized for Busambrina processing. For the Busambrina processing were used the semitendinosus muscle. A total of 20 Busambrina were produced. The meat was trimmed by fat and tendinous external parts, the raw material showing abnormal colour or that was too fatty was discarded. Then meat was covered with salt, pepper, nitrates and nitrites for at least 10-15 days at 2-4°C to allow the mixture to penetrate the muscle and to give it flavour. At the end of the salting phase, each Busambrina was washed and dried and stuffed into casing and enclosed in a net at 20-24°C and R.H. 65-68% for 5-7 days. After the drying phase, the temperature of the chamber was reduced to 3°C every day and the relative humidity was increased until it reached a temperature of 13-15 °C and a R.H. of 75-80%, the samples were ripened for 50 days. Finally, after the curing time, the casing and the net were removed and the Busambrina washed and vacuum packed. Commercial products, using by comparison, obtained with similar processing techniques and ripening times were bought from a local supermarket. The pH, colour, texture properties and chemical composition of cured Busambrina were determined. All data were subjected to ANOVA. Cinisara bresaola showed higher content of protein (Busambrina 36.40 *vs.* Commercial 31.45g 100g-1) and fat (Busambrina 7.46 *vs.* Commercial 4.51g 100 g<sup>-1</sup>;  $P < 0.01$ ) and lower values of cholesterol content (Busambrina 43 *vs.* Commercial 67mg 100g-1;  $P < 0.01$ ) than the commercial beef bresaola. No significant differences were found between Busambrina and Commercial bresaola for the pH and colour parameters As regards technological properties, Busambrina showed less tenderness values than those of the Commercial bresaola (Busambrina 9.87 *vs.* Commercial 4.76 kg/cm<sup>2</sup>;  $P < 0.01$ ). Our investigation demonstrates the possibility of processing Cinisara meat into bresaola with a good nutritional value to meet the consumers' growing demand for healthy products. Thus Cinisara meat can give an additional resource to local farmers in addition to milk production and typical products with the opportunity to create their own niche in the marketplace.