favourable in S and F lambs (p=.02) so as the proportion of muscle in relation to the defatted carcase (p=.02). The study showed that Massese lambs reared up to 70 days of age are able to provide carcases which double in weight respect to lambs slaughtered at 1 month of age. However, this result is achievable in rearing systems that provide an adequate concentrate supplementation to forage resources.

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Familiarity and preference of Lucanian consumers for animal-based products

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Within the Italian Taste project data from 192 Lucanian consumers, balanced for gender and three age classes (18–30; 31–45; 46–60 years), were gathered through questionnaires concerning demographic information, familiarity (on a 5-point scale, from 'I do not recognise it' to 'I regularly eat it') and liking (on a 9-point hedonic scale, from extremely disliked to extremely liked) for 48 animal products (18 dairy products and 30 items for meat, fish and eggs). Data on familiarity and liking were subjected to ANOVA using body mass index (BMI), gender, age, food neophobia (FNS) and orientations towards health and hedonic characteristics of foods (HTAS) as factors. The effect of familiarity on BMI was also studied. Respondents were 61% normal weight (NW), 26% overweight (OW) and 12% obese (O). Age significantly ($p < 0.01$) affected liking, with higher liking in the first age class compared with the third class for kebab (6.3 ± 0.4 vs. 3.7 ± 0.4), hamburger (7.3 ± 0.3 vs. 4.8 ± 0.3), salami (6.9 ± 0.3 vs. 6.7 ± 0.3), spicy salami (6.9 ± 0.3 vs. 5.4 ± 0.3), baked ham (7.7 ± 0.3 vs. 6.35 ± 0.3), sausage (8.2 ± 0.3 vs. 7.1 ± 0.3), chicken breast (8.1 ± 0.3 vs. 6.9 ± 0.27), cutlet (8.3 ± 0.3 vs. 7.1 ± 0.3) while this age class liked more (p<.05) lamb ribs (7.7 ± 0.4 vs. 6.3 ± 0.4) and cod (7.3 ± 0.4 vs. 6.1 ± 0.4). Women gave higher scores for skimmed milk, compared with males (6.3 ± 0.3 vs. 5.5 ± 0.3), while fresh and seasoned pecorino cheese, lamb ribs (p<.001) and spicy salami (p<.05) were preferred by males. Body mass index affected liking with higher scores in O consumers for whole milk (7.5 ± 0.5 vs. 6.1 ± 0.2, p<.05), hamburger (6.5 ± 0.5 vs. 5.6 ± 0.2, p<.05), rib beef (8.1 ± 0.4 vs. 7.0 ± 0.2, p<.05), chop (8.4 0.4vs 7.0 ± 0.2, p<.01), sushi (4.5 ± 0.7 vs. 2.9 ± 0.3, p<.05), ham (8.5 ± 0.4 vs. 7.3 ± 0.2, p<.01) and baked ham (7.7 ± 0.4 vs. 6.7 ± 0.2, p<.05) compared with NW. Regular consumers of lamb ribs (25.6 ± 3.9 vs. 19.3 ± 3.4, p<.05), chops (25.3 ± 4.6 vs. 15.7 ± 3.8, p<.05) and spicy salami (25.3 ± 4.1 vs. 19.6 ± 3.6, p<.05) showed higher BMI compared with non-consumers. We found a significant correlation between the HTAS subscale 'using food as reward' and liking for kebab (r = 0.22, p=.0033) and hamburger (r = 0.21, p=.0046). While 'food as pleasure' was negatively correlated with FNS values (r= −0.38, p<.0001). We conclude that liking of animal-based product in Lucanian consumers is affected by gender and age, while regular consumption of particular animal-based products may increase BMI.

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Nutritional value of retail meat lipid fraction from Piemontese young bulls

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Compared to conventional animals, the meat of double-muscled subjects is characterised by lower levels of fat. The aim of this study was to investigate the nutritional value of the lipid fraction of Piemontese beef. Samples of *longissimus thoracis* muscle from 10 Piemontese double-muscled young bulls purchased at retail from local butcher shops were analysed. Proximate composition, cholesterol and fatty acid content were determined. In this study, the intramuscular fat and the protein content was 1.10% and 22.45%, respectively. Thus, one serving of meat (100 g) had 99.7 kcal of which only 9.9 kcal were from fat, that is only 9.9% of the total energy. Considering a recommended daily intake of 2000 kcal and 65 g of fat, 100 g of raw meat provided 1.69% of fat and 0.50% of fat energy. Piemontese beef showed Nutritional Quality Index values lower and higher than 1 for fat and protein, respectively, which are desirable from a nutritional point of view. The cholesterol content was 51 mg/100 g meat, which represents 17% of the maximum daily cholesterol intake recommended in adults (300 mg per day). The content of saturated (SFA), monounsaturated (MUFA) and polyunsaturated (PUFA) fatty acids was 469, 337 and 200 mg/100 g meat, respectively. Therefore, the PUFA/SFA ratio was above 0.4, which is the minimum value recommended. In particular, this is due to the low proportion of SFA. Aiming to a dietary pattern that achieves 5% to 6% of calories from SFA and considering a daily need of about 2000 kcal, no more than 100–120 kcal should come from SFA. Linoleic (LA) and

α-Linolenic (ALA) fatty acids content was lower than the minimum recommended intake in human diet. In addition, the high level of n6 PUFA (188 mg/100 g meat) compared with the low level of n3 PUFA content (9.3 mg/100 g meat) led to an imbalanced n6/n3 ratio, which was higher than the recommended value of 4. In conclusion, Piemontese beef showed a desirable low fat and SFA content, but a very high n6/n3 ratio which is not desirable from a health point of view. Feeding strategies should be adopted to favour the deposition of n3 PUFA in beef in order to obtain a healthier product.

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Growth performances of rainbow trout (*Oncorhynchus mykiss*) juveniles fed on a diet containing processed fish as a partial substitute for fish meal

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The recovery of valuable nutrients from fishery discards and seafood processing is a promising alternative to the use of fish meal and fish oil, which are considered limited resources and non-sustainable feedstuffs. Studies focused on the replacement of fish meal with alternative sources, also consider the quality traits of by-products derived from wild and farmed aquatic organisms. In the past, these waste by-products were discarded without any attempt to recover or process into low market-value products, such as pet food and fertiliser. Recently, it has been ascertained that they still contain a fair amount of nutrients that could be better employed. By-products typically include muscle cuts (15–20% of the whole fish), skin and fins (1–3%), bones (9–15%), heads (9–12%), viscera (12–18%) and scales (5%). The use of discarded raw materials and processed by-products can reduce the pressure on fish stocks as well as diminish the waste and negative environmental impact associated with the processing of aquatic animals.

The present paper aims to evaluate the growth performances of rainbow trout juveniles fed on a diet including processed meal, obtained from seafood processing, as a partial replacement (50%) of fish meal. The processed meal was prepared after having extracted oil from discarded fish, which had been grounded and cooked at 70 °C, utilising both a hydraulic press and centrifugation.

The results were compared to those obtained by a control group, represented by conspecifics of the same initial mean body weight (25 ± 2 g), fed on a conventional diet (CD) composed of fish meal as the main protein source. The two feeds were isonitrogenous (45%) and isolipidic (21%). The fish were reared in duplicate tanks/group, with a recirculating aquaculture system. Growth performances and food conversion rate were evaluated after 90 days of feeding.

Good productive parameters were obtained in the two groups with similar performances. No significant differences were found in the final mean body weight, which ranged from 105 g and 110 g. The feed conversion ratio was around 1.2 and the survival rate was around 98% in both groups.

From an economic point of view, considering production and feed costs, the results suggest that there is an economic return in replacing 50% of the fish meal protein with processed seafood when this replacement is performed during the rainbow trout pre-growing phase.

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Dietary selenium supplementation of Friesian cows modifies the aromatic profile of dairy products

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This study aimed to investigate the effect of dietary selenium (Se) supplementation of Friesian cows on the aromatic properties of dairy products. Thirty-two Friesian cows, balanced for parity, milk production and days in milk, were randomly assigned to 2 groups. The trial lasted 63 days in which the control group (CG) was fed with a conventional feeding strategy, while the experimental group (SeG) received daily selenomethionine (SeMet) supplementation. During the experimental period, the milk yield was monitored and samples of milk and related Caciocavallo cheese were collected and analysed in order to obtain information on chemical-nutritional composition. To evaluate the effect of ripening on the aromatic profile, the analysis was performed on cheese samples collected after 7 (T_7) and 120 (T_{120}) days after the cheese-making. The volatile compounds composition resulted positively affected by dietary Se intake, with a significant increase in concentration of carboxylic acids, esters and lactones ($p<.05$), reflecting the predominance of the lipolytic processes respect to the proteolytic events. The general increase of carboxylic acids in ripened cheese could be explained by the extent of starter cell