unique genetic material of the Mediterranean region. The objective of this study was to evaluate differences between the two genotypes in reproductive efficiency, as one of the most important factors for biological and economic sustainability of breeding. Data were collected from 1835 parities of 685 sows (264 BS and 421 NP). The following parameters were included in the analysis: total number of born (TNB), number of born alive (NBA), number of stillborn (NSB), number of weaned (NW) piglets. The effects included in the model were analyzed (GLM procedure in SAS), separately for each parity (from 1st to ≥4th) and for all parities taken together. The following fixed effects were tested: breed (BR), herd (HD), interaction breed*herd (BR*HD), year-month of farrowing (YMF) and parity order (PO); boar (BO) was added as a random effect. Primiparous BS *vs.* NP sows showed 5.9±1.9 vs.7.3±2.1 TNB and 5.6±2.1 *vs.* 6.9±2.3 NBA, with 0.25±0.96 *vs.* 0.38±1.20 NSB and 5.0±2.4 *vs.* 5.5±2.7 NW, respectively. BR, BO and YMF had a significant effect ($P<0.05$) on litter size traits. Higher values in litter size traits were recorded in 2nd parity sows, with 6.7±2.4 *vs.* 8.3±2.1 TNB, 6.3±2.4 *vs.* 7.9±2.2 NBA, 0.34±1.20 *vs.* 0.32±1.80 NSB and 6.1±2.4 *vs.* 6.3±2.6 NW for BS and NP, respectively. A significant effect ($P<0.05$) was found for BR, BO, BR*HD and YMF. No significant effects ($P>0.05$) were found in 3rd parity sows, with 7.1±2.1 *vs.* 8.1±2.1 TNB and 6.6±2.4 *vs.* 7.8±2.4 NBA, 0.40±1.13 *vs.* 0.29±1.10 NSB and 6.4±2.4 *vs.* 6.3±2.6 NW, for BS and NP, respectively. Fourth and >4th parity sows showed 7.4±2.4 *vs.* 8.3±2.4 TNB, 6.9±2.6 *vs.* 8.1±2.5 NBA, 0.53±1.31 *vs.* 0.31±0.91 NSB and 6.2±2.9 *vs.* 6.8±2.7 NW, for BS and NP, respectively, with a significant effect ($P<0.05$) of YMF and BO. The analysis of all parities together yielded significant effects ($P<0.05$) of BR, BO, BR*HD, YMF and PO. Reproductive parameters of the two local populations showed interesting results, probably related to both genetic and environmental effects. Future investigations of prolificacy are expected to establish genetic variation between the two local populations of pigs by use of the genetic markers that are involved in physiological process controlling reproduction. Knowing the variability between the two local populations of pigs will contribute to better preservation of local pig genetic types.

P-062

Phenotypic characterization of the Italian chicken breed Milanino

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In Italy, 90 local avian breeds were described, the majority (61%) were classified extinct and only 8.9% still present in rural farms. Therefore, efforts for conservation of Italian avian breeds are urgently required. Milanino is a chicken composite breed selected at the beginning of the 20th century in Lombardia region and was included in a conservation project run by the University of Milan since 2012. This study was aimed to characterize the phenotypic features of Milanino chickens in a small breeder population according to FAO guidelines for phenotypic characterization of animal genetic resources. Ten cockerels and 47 hens were kept in indoor floor pens with controlled environment at the Poultry Unit (University of Milan, Lodi) during the reproductive season (January-June) in 2014. The following phenotypic traits have been recorded at 36 weeks of age: colour of plumage, skin, eye, earlobe, tibia tarsus and comb type. Body weight, body length, wing span, tibia tarsus length and circumference, and chest circumference have been measured. Egg production and egg weight have been recorded daily. The birds had beautiful plumage plain white and soft, simple comb and orange eyes. The birds had white skin, white tibia tarsus and white or red earlobe. Phenotypic quantitative traits showed a great variability. Milanino breed is characterized by sexual dimorphism; males had heavier body weight and higher chest circumference compared to females. Mean body weight recorded in males was 3562 ± 358 g and in females was 2545 ± 373 g. The mean egg production was 3.24 eggs/female/week and mean egg weight was 58.9 ± 3.4 g. The results of this trial will be fundamental to include Milanino into "Registro anagrafico delle razze avicole autoctone", established by Ministero delle Politiche Agricole, Alimentari e Forestali in Italy on 2014 (MIPAAF, prot. 1st October 2014 n. 0019536).

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P-063

Genetic variability at the FASN locus in the Italian Mediterranean river buffalo (*Bubalus bubalis*, 2n=50)

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Fatty acid synthase (FASN) is a enzyme complex that plays a central role in *de novo* synthesis of long-chain satured fatty acids (SFA). The structural and functional characterization of the