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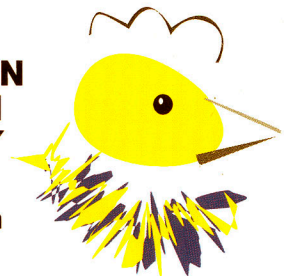
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Book of Abstracts

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Performance and reactivity in the F1 and F2 generation in Pollo Brianzolo (*Gallus g. domesticus*)

Susanna EM Lolli¹, Stefano P Marelli¹, Paolo Pignattelli¹, Lorenzo Ferrari¹ and Valentina Ferrante¹

¹Università degli Studi di Milano, Department of Veterinary Science and Public Health (DIVET), Milano, Italy

susanna.lolli@unimi.it

Brianpollo is a research project funded by Regione Lombardia, Italy (2011-2013) aimed to standardize and evaluate Brianzolo chicken, a traditional Lombardy breed for non-conventional rearing systems. Since traditional Italian poultry breeds were slow growing and had low production levels, both for meat and eggs, they were substituted by commercial hybrids. The result of this policy was the extinction or a very strong contraction in native poultry breeds. The project aim is to characterize the breeds for reactivity and adaptability to the environment in which this animal was reared in the past. The project started with a historical survey on the presence of Brianzolo chicken in the Lombardy region in order to outline a breed standard to be achieved with the selection process (weight and size; colour of feather, ear lobes, skin, eyes; comb type; feathering). Six genetic lines of grand parents will be selected, each one constitutes by 1 male (white Leghorn) and 2 female (New Hampshire). The following seven generations will be reared to obtain the Brianzolo standard. The animals will be reared according to the Brianzolo rearing program (DGR n.3641/2009). The space available will be 10 birds/m² in the poultry house and 10 m²/bird outside. Within the different generations, a significant number of males and females will be weighed at hatching, at 4, 8, 16 and 24 weeks of age. In both males and females, Tonic Immobility test (TI) will be carried out on F1, F4 and F6 generations to study the conservation of ancestral characteristics such as fear of persons. The aim of this study was to characterize the hybrids F1-F2 for phenotype, performance and reactivity. To select the next generation breeders (F3), 230 animals were phenotypically tested at the age of 4 months. Qualitative and quantitative characteristics parameters of hatching eggs were recorded on a weekly basis and the growth performance data were collected at 4, 8, 16 and 24 weeks of age. FCR was recorded too. TI test was performed on 93 subjects of F1, randomly chosen. Results of the phenotypic selection made it possible to standardize some characteristics such as comb, size and plumage colour, that will be selection objective to standardize birds morphology. Performances data of different generations showed some interesting results about the growth rate. F1 and F2 showed similar increase of weight gain rate, always higher in the F2. At 24 weeks of age the final weight of F2 (2175±137,5; g) was higher than F1 (2133,4±115,5; g). FCR was 2,3 and 2,5, F2 and F1¹ respectively. Regarding fear response the hybrid F1 showed ancestral characteristics: the mean number of attempts to induce immobility was 1,25, while the mean duration was 98,19 sec. The results of this study, although preliminary, showed productive performance typical for slow growing rural breeds adapted to alternative production systems.

Keywords: chicken breed, breed standard, performance, reactivity