

of oxidative stress in periparturient dairy cattle. Specific isoforms of IsoP may have beneficial effects on vascular integrity during times of oxidative stress. Establishing threshold values for isoprostanes can facilitate the development of management strategies to control oxidative stress during times when dairy cattle are most susceptible to health disorders.

Acknowledgements

The research was funded in part by a grant [2017-67015-26676] from the Agriculture and Food Research Initiative Competitive Grants Programmes of the USDA National Institute for Food and Agriculture and by an endowment from the Matilda R. Wilson Fund (Detroit).

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Semen freezability in Italian chicken breeds

Ahmad Abdel Sayed, Fabio Mosca, Manuela Madeddu, Maria Grazia Mangiagalli, Silvia Cerolini, Luisa Zaniboni

Dipartimento di Medicina Veterinaria, University of Milano, Italy

Contact: ahmad.abdel@unimi.it

The purpose of this study was to assess semen sensitivity to cryopreservation in two Italian chicken breeds: *Mericanel della Brianza* (MB) and *Milanino* (MI). MB ($n = 27$) and MI ($n = 19$) cockerels were housed in outdoor pens and the semen was regularly collected twice a week. Soon after semen collection, the ejaculates were pooled into semen samples and diluted to 1.5×10^9 mL in pre-freezing Lake diluent, refrigerated at 5°C and transferred to the DiMeVet laboratory (University of Milan) for further cryopreservation processing. In brief, semen samples were further diluted to 1×10^9 mL in pre-freezing Lake diluent added with DMA (6% final dilution) and trehalose (0.1 M), incubated for 1 min at 5°C , loaded into 0.25-mL French straws and frozen in nitrogen vapours. Thawing was performed in a water bath at 38°C for 30 sec. Ejaculate volume and concentration were recorded; sperm viability (SYBR14-PI staining) and motility (SCA System) were assessed in pooled semen samples before and after cryopreservation.

Good semen production was obtained in MI cockerels and 12 semen pools were processed for cryopreservation, whereas, poor semen production was obtained in MB cockerels and only 3 semen pools were processed. The quality of fresh semen was higher in MI compared with MB males: viability and motility were 91% and 84%, respectively in MI birds, and 77% and 51%, respectively in MB birds. As expected, cryopreservation caused a significant decrease in sperm quality parameters: viability and motility were reduced to 42% and 33%, respectively in MI males, and to 29% and 15%, respectively in MB males. The mean recovery rate of viable, motile and progressive motile sperm after cryopreservation was 46, 37 and 18%, respectively in MI birds, and 38, 33 and 51%, respectively in MB birds. These results highlighted the high variation in motility and progressive motility recorded among

semen samples. The present data are considered preliminary results and further studies are required to confirm the different semen freezability found between and within the breed. The functional and biochemical characterisation of semen samples with extreme (highest vs. lowest) sensitivity to cryopreservation is of undeniable interest to identify biochemical markers and will be investigated.

Acknowledgements

The research was funded by MIPAAFT PSRN 2014-2020 – Sottomisura 10.2 Biodiversità/Comparto avicoli – Project n. 0011078 with FEASR support.

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Selective hunting plans as source of reproductive data in wild boar of the National Park of Sibillini Mountains

Maria Federica Trombetta¹, Michela Ancona¹, Enrico Cordiner², Marina Pasquini¹

¹*Dipartimento Scienze Agrarie Alimentari ed Ambientali, Università Politecnica delle Marche, Ancona, Italy*

²*Laboratorio di Ecologia Applicata, Perugia, Italy*

Contact: m.f.trombetta@univpm.it

The rapid increase of wild boar (*Sus scrofa*) in Italian Apennines and in many European areas is due to its generalist behaviour that has led to wide expansion causing damage to agriculture activities. Therefore, the Parks, in order to reduce density of the wild boar population, started monitoring and harvest plans, so since 1998, the Sibillini Mountains Park has implemented its wild boar management plan. Data, obtained from forms filled out by selective hunters, regarding 1821 wild boars hunted from 2015 to 2017, have been available. To evaluate the effect of year, season and age class (I and II) data on 557 wild females (their uteri were cut open to evaluate pregnancy rate and litter size) has been statistically analysed with JMP 10 software (NC, USA). The descriptive statistical analysis on hunted females showed: average age 26.11 ± 10.77 months, mean weight 63.11 ± 15.96 kg, mean foetus number 4.42 ± 1.25 . The ANOVA considering year effect (2015, 2016, 2017) did not show significant differences for age, weight and foetus number during the three-year period. The effect of season showed significant differences ($p < .05$) for age and weight; wild females hunted in Winter were older than those hunted in Spring (27.07 vs. 23.77 months). Moreover, females hunted in Autumn reached a higher weight (68.12 kg) than the ones hunted in other seasons (Winter 62.81 kg, Spring 61.78 kg, Summer 61.68 kg). Age class II females showed heavier weight ($p < .05$) than those of class I (73.28 vs. 56.06 kg). In the three-year period, overall reproductive data on 550 wild females showed the following physiological status: 70.54% no pregnancy vs. 29.46% pregnancy. Four hundred and twenty-six out of 557 females,