
# Book of abstracts 2022

The French branch of WPSA is waiting for you

More informations at:
**WPCPARIS2022.COM**

education organization research

**26th World's Poultry Congress**

# BOOK OF ABSTRACTS 2022

## Abstracts submitted in 2020 and 2021 and selected in 2022

**Organized by**

**French Branch of the World's Poultry Science Association**

**The 26th World's Poultry Congress - 07-11 August 2022**

**Publisher**
**French Branch of the World's Poultry Science Association**

**Editors**
**Dr Michèle TIXIER-BOICHARD, chair of 26th WPC**
**Dr Michel DUCLOS, Chairman of the Scientific Committee of 26th WPC**

**Professional Congress Organizer (PCO) – Colloquium Group (Paris, France)**

**ID: 1798**

# CHANGES IN OVIPOSITION TIME OF BROWN HENS DURING THE CYCLE IN AN AVIARY SYSTEM

G. Pillan*(1), G. Xiccato (2), A. Pascual (2), F. Bordignon (1), M. Birolo (2), A. Concollato (3), A. Trocino (4)

(1) Department of Comparative Biomedicine and Food Science, University of Padova, Legnaro, padova, Italy, (2) Department of Agronomy, Food, Natural Resources, Animal, and Environment, University of Padova, Legnaro, padova, Italy, (3) Poultry Science Technology Department, Facco Poultry Equipment, OFFICINE FACCO & C. Spa, Marsango di campo san martino padova, Italy, (4) University of Padova, Department of Comparative Biomedicine and Food science, Legnaro, Italy **Presenting author*
**Corresponding author mail:** angela.trocino@unipd.it (Angela Trocino)

The oviposition time of hens is known to be affected by genotype and age. In cage-free systems, egg collection should be adjusted to the oviposition pattern more strictly compared to cage systems to optimize egg quality. Thus, the present study evaluated changes in oviposition time during the production cycle in 1,800 Lohmann Brown-Classic hens kept in an aviary system made of two tiers, equipped with collective nests, perches, nipple drinkers and automatic feeding, and a third level with perches and feeders. The aviary was divided in 8 pens (225 hens per pen) which were joined by 45 weeks of age by removing the nets between pens to have a unique system. Egg production at different time intervals (from light turning off to 7:30, 7:30-9:30, 9:30-11:30, 11:30-13:30, 13:30-15:30, 15:30-light turning-off) was measured every two weeks from 26 to 30 weeks and once per month from 37 to 58 weeks of age. Data were analysed using a mixed model with week as the main effect and pen as a random effect by the PROC MIXED of SAS (Statistical Analysis System) and means were compared by the Bonferroni t-test. Most of eggs were laid within 11:30 (average of all weeks: 95.29%). As for the first interval, the rate of laid eggs significantly decreased with age from 79.75% of the daily total (average of data collected during weeks 26-30) to 50.85% (data of weeks 37-58) ($P<0.001$). On the other hand, the rate of eggs laid in the second time interval increased from 14.28% (average of weeks 26-30) to 32.35% (average of weeks 37-58), and from 3.71% to 10.64% in the third time interval. Changes in the rate of eggs laid in the intervals 11:30-13:30 and 13:30-15:30 showed a rather consistent trend between the weeks 26-30 and the weeks 37-58 with lower values in the former period compared to the latter, whereas changes among weeks referred to the last interval (after 15:30) were most erratic. As regards the eggs laid in the nest (as rate of the total eggs laid in each time interval), a significant effect of the age was recorded only for data referred to the first and second time intervals, i.e. within 7:30 and 7:30-9:30. In details, eggs laid in the nest increased from 77.26% (average of weeks 26-37) to 85.92% (average of weeks 41-58) at the first interval and from 70.21% to 84.35% at the second interval. In conclusion, the oviposition pattern was affected by age with earlier deposition in younger hens and improved use of nests in elder ones.