

**Growth and mortality of oysters (*Crassostrea gigas*, Thunberg 1793) in an suspended system in Sacca degli Scardovari (Rovigo, Italy)**

**A. Trocino<sup>1</sup>, C. Zomeño<sup>1\*</sup>, F. Gratta<sup>2</sup>, M. Birolo<sup>2</sup>, A. Pascual<sup>2</sup>, F. Bordignon<sup>2</sup>, E. Rossetti<sup>3</sup> and G. Xiccato<sup>2</sup>**

<sup>1</sup> Department of Comparative Biomedicine and Food Science, University of Padova, Italy; <sup>2</sup>Department of Agronomy Food Natural Resources Animals and Environment, University of Padova, Italy; <sup>3</sup>Consorzio Cooperative Pescatori del Polesine O.P. Scarl, Scardovari, Rovigo, Italy.

\*cristina.zomenosegado@unipd.it

This study assessed growth and mortality of oysters reared in suspended ropes, and tested the effect of rope emersion time throughout fattening (8 months; October 2016-June 2017). A total of 4320 triploid oysters were stuck to 36 ropes (320 oysters/rope) and subjected to three emersion systems (12 ropes/system): standard of the farm (F), i.e. variable emersion duration changing according to daily atmospheric conditions; long (L), i.e. 14 emersion hours per day; short (S), i.e. 7 emersion hours per day. Biometric traits were collected at sticking, and after 2, 4, and 8 months. Biometric data were analysed with PROC MIXED (SAS), with emersion system, sampling time and their interactions as fixed effects, and rope as random effect; mortality was analysed with PROC CATMOD. At sticking, oysters exhibited an average weight of  $6.04 \pm 2.63$  g, a length of  $39.8 \pm 8.38$  mm and a width of  $23.9 \pm 4.39$  mm. Oyster length and width were similar from 2 to 4 months (46.1 mm and 33.3 mm on average, respectively), and increased after 8 months (76.0 mm length and 59.6 mm width) ( $P < 0.001$ ). After 8 months, oysters subjected to F and L emersion programs were heavier (68.3 g and 66.3 g vs 56.8 g;  $P < 0.01$ ), longer (78.1 mm and 77.2 mm vs 71.6 mm;  $P < 0.01$ ) and wider (55.6 mm and 55.0 mm vs. 50.8 mm;  $P < 0.10$ ) than those subjected to S emersion. Total mortality reached 44.3% in F, 63.3% in L, and 66.8% in S system ( $P < 0.001$ ). To conclude, under the tested conditions, oysters fattening appeared feasible and promising, but the short fixed emersion system was the least favorable due to higher mortality and lower growth. Acknowledgements: La Perla del Delta; Veneto Region, Reg. (UE) 508 15/05/2014, DGR 213 28/02/2017.

*Accepted for oral presentation at 69<sup>th</sup> Annual Meeting of the European Federation of Animal Science, Dubrovnik, Croatia, 27<sup>th</sup> to 31<sup>st</sup> August 2018*