



4th Annual Meeting of the Associate Laboratory for Animal and Veterinary Science

AL4Animals

Abstract and poster guidelines and template

(use only English UK language)

MAY 15th, 16th 2025

Faculdade de Medicina Veterinária da Universidade de Lisboa

ABSTRACT INSTRUCTIONS:

1. The abstract should be written in UK English.
2. Structure: introduction, objectives, methodology, results and conclusions
3. Only original works will be considered. Systematic reviews, meta-analysis and narrative reviews will not be considered.
4. Maximum character limit with spaces: 3000
5. Font: Calibri
6. Size: title (bold and capitalised) = 11pt; body text = 11pt;
7. Alignment: justified
8. Spacing: Multiple 1.15
9. A4 format, vertical orientation, margins: top and bottom = 2.5 cm; left and right = 2.5 cm
10. Bibliographical references: Should not be included in the abstracts.
11. **The whole abstract must fit within one A4 page.**
12. **Only the Abstracts that fulfil the instructions will be accepted.**

Title

(Font: Calibri – Bold; Size: 11; Alignment: justified; Space: 1; capital letters)

Authors

Name and Surname written in full (Font: Calibri – Bold; Size: 11; Alignment: justified; Space: 1; capital letters)

Present all author's Name and Surname or professional name; separate the authors' names with a semicolon; use underline to highlight the presenting author.

Institutions

Number each Institution for which the authors work or collaborate. Must be numbered next to the author's name (Name + Surname¹) without spaces, and written in superscripts. Give the full name of the institution, avoiding acronyms. Use one paragraph per institution. Institutions names can be in Portuguese or English, but all in the same language.

Abstract

Structure: Introduction, Aims, Methodology, Results and Conclusions;

Characters with spaces: max 3000, Font: Calibri, Size: 11, Alignment: justified; Space: 1.15.

Note 2: Only original works will be considered. Systematic reviews, meta-analysis and narrative reviews will not be considered.

Acknowledgments/Funding

FORMAT OF THE POSTER PRESENTATIONS:

The posters will be on display throughout the event in the networking area. **The author of works submitted to the competition must be close to their work during the scientific posters sessions** and will be responsible for removing the poster at the end of the event. The printed poster must be of size A0 = 841 x 1189mm, portrait orientation, including graphs, photographs, diagrams and a reduced amount of text. Authors may have A4 copies of their poster available at the event.

The following logos are mandatory on the printed version of the poster:



Supported by LA/P/0059/2020

Example  - The entire document must fit on one A4 page:

FORTIFICATION OF SEABREAM WITH VITAMIN D₃ AND 25-HYDROXYVITAMIN D ENHANCES THE NUTRITIONAL VALUE OF FARMED FISH

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INTRODUCTION: There is a need for sustainable food-based strategies to bridge the gap between current and recommended intakes of vitamin D to minimise the prevalence of low serum 25(OH)D status, without increasing the risk of excessive dosing. Oily fish are regarded as one of richest dietary sources of vitamin D being mainly available in the form of cholecalciferol (vitamin D₃). Recent studies have shown that vitamin D₃ is more effective at raising serum 25(OH)D concentrations than vitamin D₂. Under farming conditions, fish quality traits such as fatty acid profile and concentration of several trace nutrients like minerals and vitamins are known to be influenced by diet composition. Exogenous feeding opens the possibility to tailor fish composition in terms of its content of valuable nutrients.

AIMS: A trial was performed with gilthead seabream to assess the effect of a dietary supplementation on vitamin D₃ (as cholecalciferol) and 25-hydroxyvitamin D on the growth performance, vitamin D₃ deposition in fillets and sensory quality traits.

METHODOLOGY: Three diets were formulated to be isonitrogenous, isolipidic and isoenergetic. A control diet (CTRL), mimicking a commercial formulation contained vitamin D₃ supplied as cholecalciferol, at levels of 31 µg·kg⁻¹. Based on this control formulation, two other diets were manufactured to a target level of 75 µg·kg⁻¹ of vitamin D₃, supplied either as cholecalciferol (diet D3) or as 25-hydroxyvitamin D (diet HyD). The upper limit of vitamin D₃ supplementation was set at 75 µg vitamin D₃ per kg feed (3000 IU·kg⁻¹), to comply with the current maximum legal limit in the EU market. Each experimental treatment was tested in duplicate tanks over 84 days.

RESULTS: The overall growth performance criteria (weight gain, feed intake) and the composition of whole fish at the end of the trial were not significantly affected by the various dietary treatments (P>0.05). Similarly, the fillet content on vitamins (A and D₃) and minerals (iodine, selenium, iron, zinc, potassium, magnesium) was not affected by dietary treatments (P>0.05). Fillets from seabream fed the CTRL diet contributed to 46% of vitamin D₃ DRV, while those fed the D3 and HyD diets represented 60 and 55%, respectively. On a relative basis, this variation represented a 31% (D3) and 21% (HyD) increase of the nutritional contribution of fortified seabream fillets.

CONCLUSIONS: The vitamin D₃ supplementation, kept within the maximum authorized limit (3000 IU/kg feed) in the EU market, enhances the contribution of gilthead seabream to the Dietary Reference Value. This biofortification of farmed fish is an efficient strategy to enhance the vitamin D₃ intake in general populations.

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