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IMPACT OF MICRODIET NUTRIENT DENSITY AND FEEDING LEVELS ON SENEGALESE SOLE (*Solea senegalensis*) POST-LARVAE DURING WEANING

Tailoring your feeds

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INTRODUCTION

Senegalese sole

Nutrient density

Feeding rates

→ **Growth** **FCR**

Objectives

- Optimize quantities fed to fish;
- Adjust nutrient density of microdiets.

CONCLUSION

- **Both microdiets (61:17 and 60:15) led to high growth sole post-larvae**
- **Diet 60:15 brought better growth and a better feed conversion than diet 61:17, when fed at 100% ration**
- **The feed conversion (FCR) benefit disappeared at 80% apparent satiation, with both FCR being similar**
- **Senegalese sole performance is greatly influenced by both nutrient density and feeding level**

MATERIALS AND METHODS

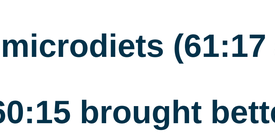
Two diets

61:17

61% Crude Protein

17% Crude Fat

60:15



60% Crude Protein

15% Crude Fat

Four dietary treatments

100%
80%
100%
80%

Triplicate tanks From 20-63 DAH

RAS system
Temperature 20.3ºC±0.4

RESULTS

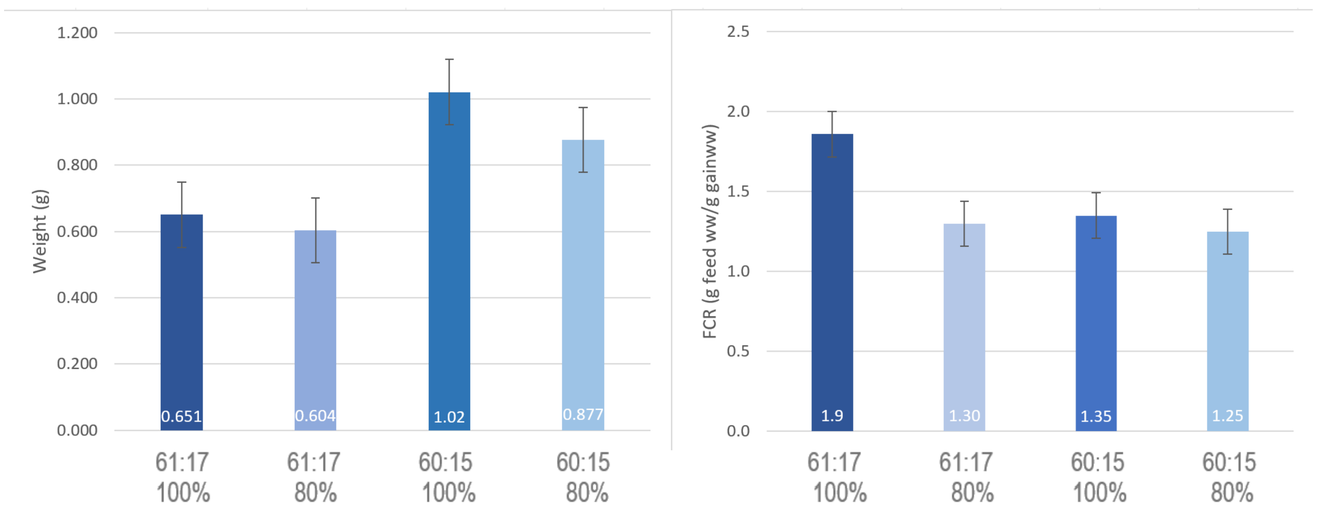


Figure 1. Wet Weight (Left) and Feed Conversion Ratio (FCR, Right) of *Solea senegalensis* with 63 DAH, fed with two microdiets with different nutrient densities, 61%:17% and 60%:15% (crude protein: crude fat), and fed at two feeding levels, 100% and 80% of apparent satiety. Means ± SD (n=3)

- **Wet Weight:**
  - 60:15 higher wet weight than 61:17 (2W-ANOVA, $p<0.001$)
  - No differences feeding level and interaction feeding level x microdiet (2W-ANOVA, $p= 0.10$ and $p=0.35$, respectively)
- **FCR**
  - 60:15 had a lower FCR than 61:17 (2W-ANOVA, $p=0.001$)
  - At 80% feeding level better FCR but with a significant interaction feeding level x microdiet ($p=0.017$)

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