

EVALUATION OF 2 WEANING PROTOCOLS FOR BURBOT, *Lota lota* (L.) IN RAS.

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In the framework of the European Interreg IV project “AQUAVLAN” the University College KaHo Sint-Lieven is investigating the grow out culture techniques of burbot (*Lota lota*) in its new Aquaculture Education and Research Facilities (Aqua-ERF). The unavailability of weaned fingerlings was identified as a bottleneck for the development of the commercial aquaculture of burbot. Therefore, Aqua-ERF also initiated larviculture of burbot.

Yolk sack larvae were stocked in 2 rectangular tanks of 250 l, part of a RAS system, and were fed *artemia* nauplii when the yolk sack was absorbed. For the weaning experiment, inserts in salmonid hatching trays were used. After 72 days of culture, the fry were stocked in 6 inserts at a density of 47 fry l⁻¹. Two weaning protocols were tested in triplicate:

- 1) Co Feeding (CF): the amount of artemia was gradually reduced and the amount of dry feed was gradually increased.
- 2) Direct Feeding (DF): only dry feed was administered from the start.

After 29 days, both weaning protocols result in an equal survival rate, rate of cannibalism and SGR. The fraction of large fry (after grading) was higher for DF than for CF. This difference however seemed to disappear after 49 days. In practical fingerling production, the DF protocol will be preferred because of equal or better performance compared to the CF protocol. Also, in terms of economics (artemia cost and labour cost) the application of direct feeding is recommended.

Burbot fry can be weaned in RAS but the effect of the low water temperature on biofilter performance has to be taken into account. Also larval survival has to be improved especially by earlier grading which was demonstrated to reduce the rate of cannibalism.

Key words: burbot, diversification, RAS, weaning protocol