Alternative feed sources with higher protein content will be more efficient and result in a lower feed consumption for Atlantic salmon (Salmo salar) diets

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Context:

- 70% of aquaculture carbon emission comes from feed
  - USA, Brazil and Argentina
  - Transport
- Alternative feed
  - Protein sources
  - Locally produced

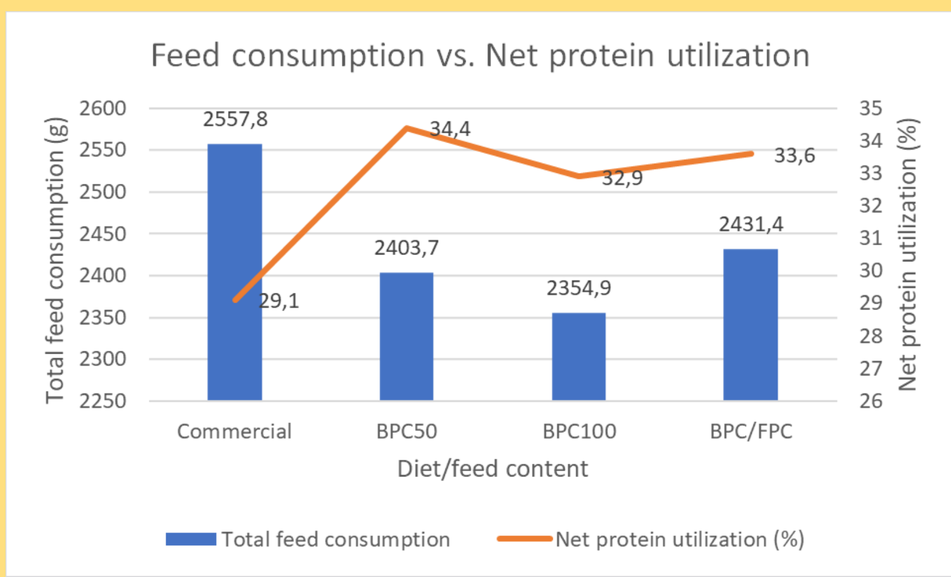
Parameters	Commercial feed	BPC50	BPC100	BPC/FPC
Net Protein Utilization	29.1 ± 1.93	34.4 ± 1.98	32.9 ± 4.24	33.6 ± 4.72
Total feed consumption (g)	2557.8 ± 209.1	2403.7 ± 164.6	2354.9 ± 282.4	2431.4 ± 103.8
Initial weight (g)	90.9 ± 4.9	90.4 ± 2.8	90.7 ± 4.9	90.2 ± 3.5
Final weight (g)	171.3 ± 7.2	177.6 ± 1.1	173.0 ± 11.4	176.5 ± 8.6

Method:

- Data from Bell et al (2016)
- Mean parameters:
  - Net protein utilization
  - Total feed consumption
  - Initial weight
  - Final weight

Results:

- 12-week period
- 4 diets:
  - No significant differences of parameters



References:

Based on Bell, Strachan, Roy, Matthew, McDonald, Barrows & Sprague. **Evaluation of barley protein concentrate and fish protein concentrate, made from trimmings, as sustainable ingredients in Atlantic salmon (*Salmo salar* L.) feeds.**

Conclusion:

- No significant difference in protein utilization
- Potential substitute
- Composition dependent