Nutrattract®

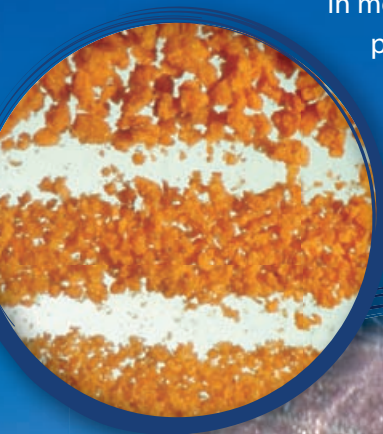
– the Aroma for Growth

Grow out diets

Fishmeal replacement diets are currently being developed and tested around the world. In some cases, plant-based proteins are already replacing substantial amounts of fishmeal (e.g. salmon diets). However, marine finfish diets are still, almost solely based on fishmeal as a protein source. One of the impediments for the use of plant-based proteins is their low attractability, resulting in low ingestion.

Larvae weaning microdiets

Larvae weaning diets are still far from being optimised. Early weaning of marine fish larvae is impeded by the low acceptance of formulated diets. Although, in the past decade, the use of live food and specifically Artemia reduced significantly, it is still in most cases, hard to match performances of formulated weaning diets with live food. Acceptance and ingestion of the diets are usually one of the problems.



THE SOLUTION – better attractability

A new solution is now available to improve the attractability and acceptability of any finfish diets (as well as other marine organisms), whether it is weaning or growout diets.

Nutrattract® is a new, innovative (patent pending) attractant, 100% natural and based on Artemia (cultured under unique conditions). It is manufactured using a proprietary and unique process, enabling the preservation of all the natural nutrients that make Artemia such an attractive feed for marine organisms.

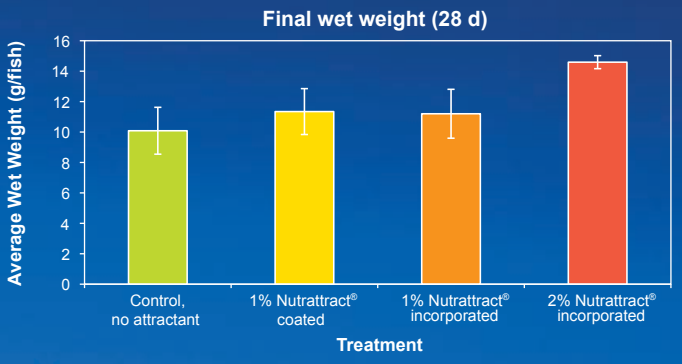
Nutrattract® can be coated, vacuum-infused or incorporated into any food particle, pelleted or extruded (usually at 1-3% inclusion). It will not change the diet shelf life. It is available in liquid or powder forms.

Plant-based diets with Nutrattract®

Nutrattract® was added at a range of inclusion levels, to a lupin-based growout diet (100% lupin protein as a fish meal replacement) for barramundi (*Lates calcarifer*). Nutrattract® was incorporated or vacuum-infused into the diet during the preparation using standard pellet extruder.

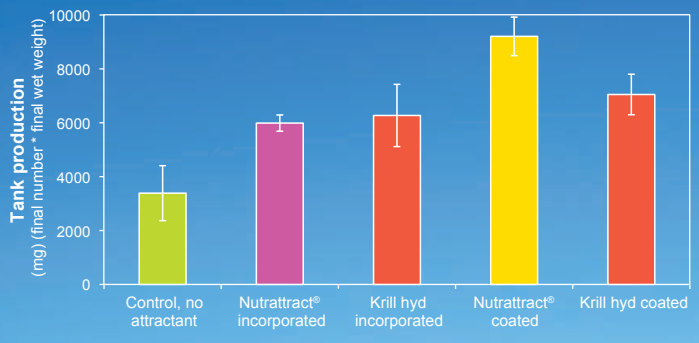
Each treatment was tested in three replicates (20 fish, 6.7±2.1 gr in each tank) for 28 days. Fish fed to apparent satiety.

Fish fed diet with 2% inclusion of Nutrattract® had 140% higher growth (as final weight) compared to fish fed with only (100%) lupin-based diet (14.6g vs. 10.1g respectively).

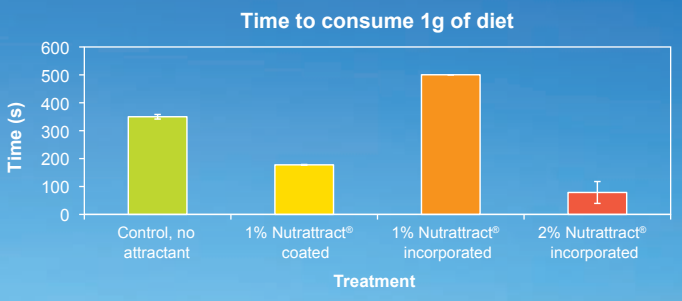


Weaning diets with different attractants

Yellowtail kingfish (*Seriola lalandi*) larvae were reared from 14 days post hatch (dph) to 29 dph using one of six experimental microdiets with 4 replicates (3000 larvae in each tank). A single protocol that progressively excluded live feeds (rotifers and *Artemia*) was used to wean the larvae onto microdiets. Two attractants were compared in two incorporation methods; krill hydrolysate and Nutrattract® incorporated into the diet or coated over the diet particles. Larvae received Nutrattract® coated microdiet demonstrated significantly higher biomass due to higher survival rates (Kolkovski et al., 2009).



This was due to higher ingestion rates. Inclusion of Nutrattract® in the diet seems to have dose response in terms of growth rate, where 1% attractant inclusion resulted in final weight of 11.2g and 2% included were 14.6g. It is possible that higher Nutrattract® percentage coating the diet surface would result in even higher intake and growth as proved to be the case with fish larvae diets.



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