# AMBERJACK FEEDING WITH MOISTURIZED PELLETS

In nature, the greater amberjack *Seriola dumerili* feeds on fish and invertebrates (such as squid). In aquaculture, the existing broodstock come mostly from wild populations, and are fed either with live or frozen fish.

The objective of this protocol is to adapt broodstock from live/raw foods to semi-moist commercial extruded feeds. This is considered necessary because:

* Commercial feeds increase the biosecurity level since the risk of disease transmission from raw materials is eliminated,
* It is easier to manage fish feed, both financially (reduced cost of dry feed compared to live feed) and in terms of management (no need for freezer, etc.)
* The nutritional needs of broodstocks are covered to a greater extent with the commercial feeds, which include also special igredients for their reproductive function.

Diet with semi-moist (re-moisturized dry feed) was successfully used at the sea cage facility of the Hellenic Center for Marine Reserarch (HCMR) in Souda Bay, Crete, Greece, and then was applied in the Laboratory of Fish Reproduction, HCMR Aqualabs in Heraklion. The steps for implementing the above are:

1. Before the implementation of the protocol, fish had been fed with frozen mackerel three times per week (3% of their body weight),
2. The previous day of feeding, a quantity of dry food was placed (we used Vitalis Repro and Vitalis Cal, Skretting, Norway) in a plastic container, adding fresh water to a level of 1-2 cm below the surface of the feed pellets.
3. On feeding day, the moisturized dry feed was formed into balls (like meatballs), adding muscle of frozen fish (mackerel) in more than 80%, initially. The ball had a diameter of 2-2.5 cm.
4. If the fish did not accept these balls, we used the skin of mackerel’s slice (we had already removed the muscle) and filled up the created gap by a mixture of fish / moisturized dry feed, as in step 3.
5. At the beginning, we used offered a small quantity (1 ball / fish), even if the fish could eat more in order to continue to have appetite for the next day. After 7-15 days, when the fish adopted that way of feeding (and meanwhile gradually increased the amount to 2-3 balls / fish per day), we started to reduce the amount of muscle in the balls.
6. The decrease of the percentage of muscle could be decided by the person who feeds the fish. For example, if the fish accept easily feed with 50% of fish muscle, you could proceed to a reduction of the rate at the next feeding day (e.g. 30%).
7. About a month later, the fish accepted moisturized dry feed and they were fed with a quantity of 1% of their body weight (dry weight before adding water to the dry feed) three times a week, and then to 0.7% of their body weight (dry weight before adding water to the dry feed) five times a week (Monday to Friday).
8. Next step will be their training to dry feed in order to reduce significantly the labor involved (food preparation, food shaping into balls, etc..).
9. This period, we use Vitalis Repro. Just before the breeding season (March) the used dry feed will be Vitalis Cal, as more appropriate for the specific period.