

Reference to article posted by James Wright Is a 'baby food' bottleneck looming for aquaculture?



Many R&D projects were set-up with the goal of reaching that holy grail of Artemia replacement. I agree with Sergio Nates that it will be very difficult to find a complete replacement. What we have seen so far are rather Artemia substitutes, the higher the % of substitution the lower the growth rate and survival of the aquatic animal. As an example, shrimp larvae between Z3 and PL5 will have optimal growth when fed 100% Artemia but will perform very poor on 100% replacement.

As Athene Blakeman concluded "Artemia is here to stay"

So how can we use the available resources better?

- The demand for Artemia cysts is focused on high grade, easy to hatch Artemia cysts, but there is an important volume of low hatching cysts which don't make it to the market because of the many hatching difficulties such as irregular hatching output, vibrio contamination and impurities. The most important challenge is the separation of such low hatching batches
- Use the available resources more efficiently. Hatcheries are not always using optimal hatching conditions such as light and temperature. Temperatures higher than 30c will proportionally have a negative impact on the hatching.
- Actually, it should not be a headache for the hatchery manager but so far, the Artemia-cyst-industry best solution was a dried Artemia cyst in a can easy to store and transport, but this was not really the solution hatcheries were looking for.

During the last 7 years, **I&V-BIO** created Nauplii Centers in different countries such as Thailand, India, Indonesia, Bangladesh, Vietnam and Ecuador. These Nauplii Centers use state of the Art facilities with tailor made computer programs to follow and control the hatching stage during the whole hatching cycle. With our know-how from many years we are able to hatch in the most optimal conditions and we can work with high grades and low grades, with dry or brined cysts. No matter which batch we use, we deliver **daily** to our customers live Instar1 Nauplii, hibernated and de-watered into a paste and packed into sealed trays of 800g. (75.000 Nauplii per gram). More importantly, thanks to our technology and consistent Q.C. we can guarantee a **vibrio-free** product.

Once arrived at the hatchery, the nauplii can be directly added to the larvae tanks.

Nauplii which are not eaten immediately, will wake up and start swimming triggering the predatory reflexes of the fish or shrimp.

Tom Prins correctly added that Artemia Nauplii Instar1 could have a suboptimal nutritional profile for some aquaculture animals, therefore we also offer Artemia enriched with nutritional additives specially selected and formulated for these specific aquaculture species. Enriched Artemia is a live bio-encapsulated feed with all the necessary requirements; nutrition, no leaching and alive.

With special thanks to James Wright for this initiative!