

SHORTENING THE PRODUCTION CYCLE OF *Macrobrachium rosenbergii* BY OPTIMIZING ARTEMIA AS LIVE FOOD IN THE LARVAL REARING PROTOCOL

De Wolf Tania*, Kongnuan Pantipa, Calloni Stefano, Charuchai Siriphol, Chiappi Letizia and Rombaut Geert

t.dewolf@inveaquaculture.com



INTRODUCTION

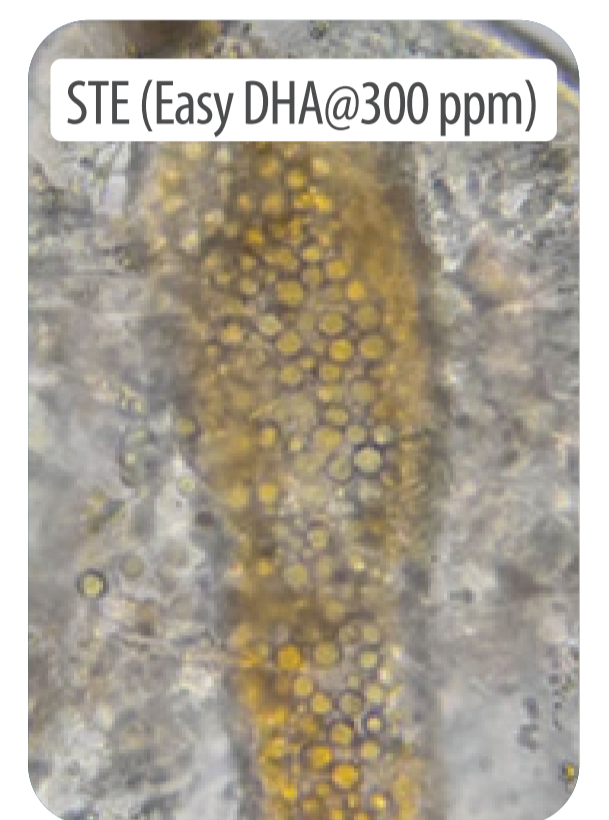
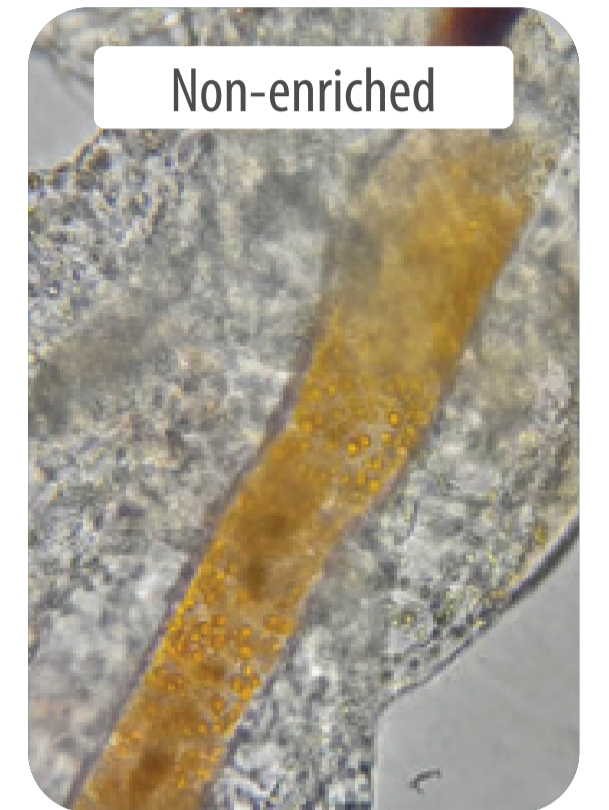
The efficient production of *Macrobrachium rosenbergii*, a key species in aquaculture, depends on optimizing larval rearing protocols. This study investigates the impact of enhancing the nutritional profile of Artemia as live food to shorten the production cycle of *M. rosenbergii*. We employed a series of treatments, including lipid and vitamin enrichment protocol for Artemia, to assess their effects on larval growth rates, survival and metamorphosis rate. The trial was run in a commercial *Macrobrachium* farm in Thailand.

TREATMENTS

Tr1. Control: Non-enriched SEP-Art Artemia + Moina

Tr2. Short term enriched SEP-Art Artemia (Easy DHA Selco and **Sanocare™** ACE Pro) + Moina

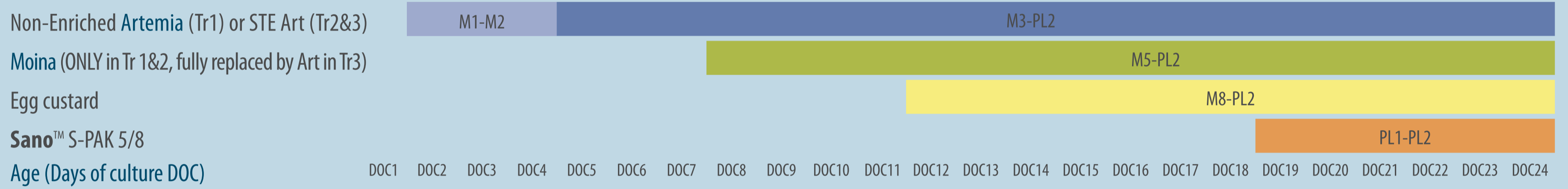
Tr3. FULL Short term enriched SEP-Art Artemia (Easy DHA Selco and **Sanocare™** ACE Pro) NO Moina.



RESULTS

Enrichment of Artemia results in a better growth (Fig.1) and faster metamorphosis rate (Fig.2) of *Macrobrachium* larvae. This result is amplified when STE Artemia, produced in a biosecure way, is fully replacing wild zooplankton.

FEEDING SCHEME



Feeding enriched Artemia increases the **GROWTH** and speed of **METAMORPHOSIS** of *Macrobrachium*. Fully replacing wild zooplankton by short term enriched Artemia reduced the time for PL production by 4 days, reducing considerably labor costs.

Individual Dry weight at DOC11 ($\mu\text{g}\cdot\text{Ind}^{-1}$)

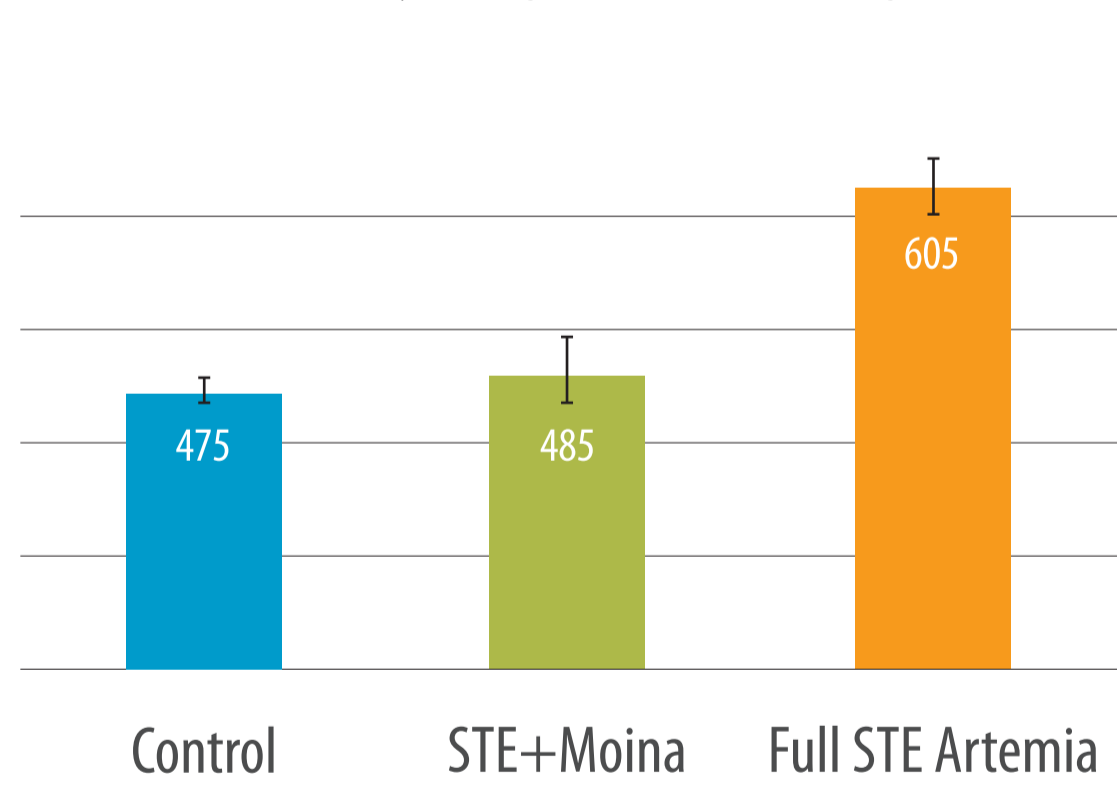


Fig.1. Individual dry weight at DOC11

Metamorphosis rate % of PL in the population

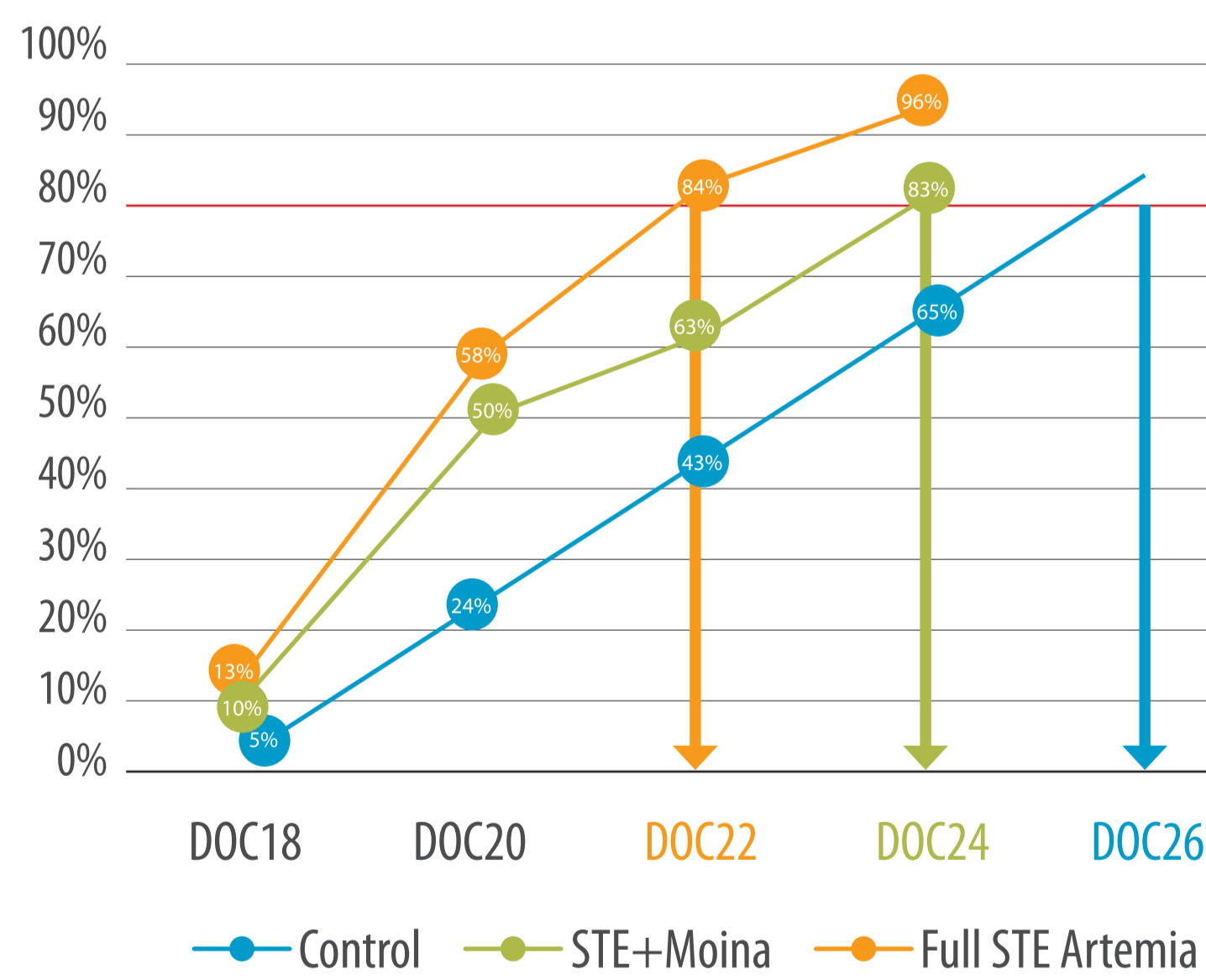
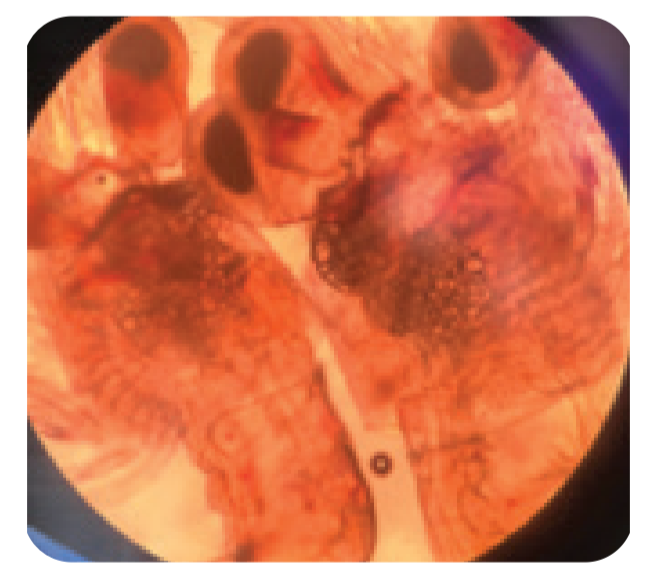
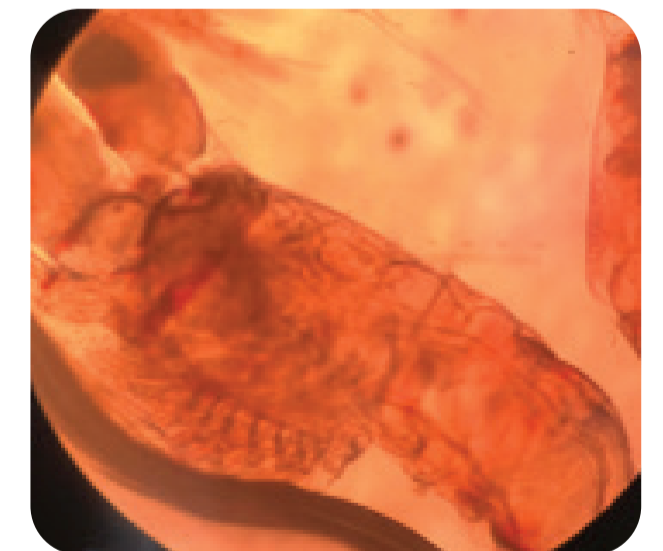


Fig.2. Development rate from Mysis to PL. Arrows indicating the time for harvest when 80% PL is reached



HP condition using STE Artemia



HP condition using Non-enriched Art and Moina



ACKNOWLEDGEMENTS

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