Underwater Fish Attracting LED Lamp (UFAL)

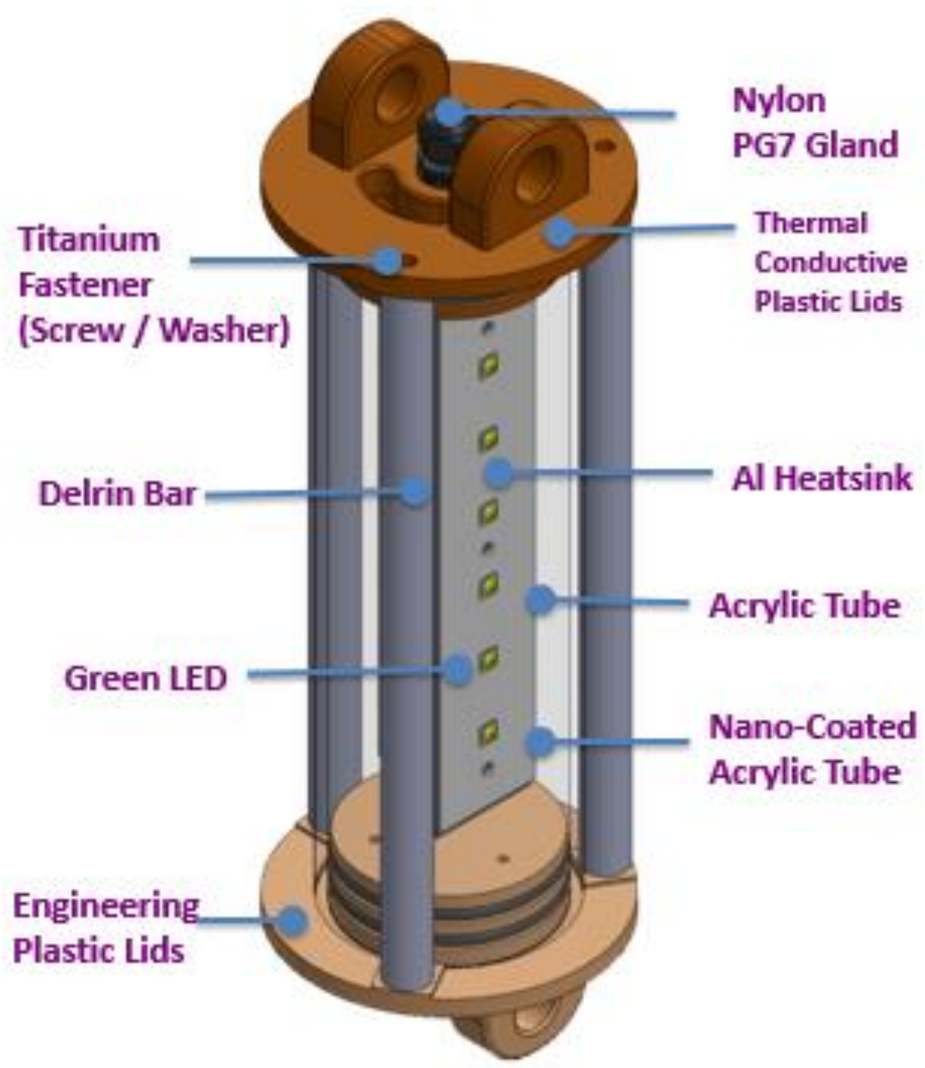
SIRIM

MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY

PROJECT SUMMARY

The first-feeding period for all fish larvae, both in nature and in controlled culture conditions, is a critical time - either larvae are able to identify and aptly respond to food sources in their environment by successfully capturing and ingesting enough to remain nutritionally fit. For local aquaculture industry, the average mortality rate of fish larvae is around 50 % after 3 months being released inside the net. To make it to worst, the dependency on commercial pellet and fish trash (baja ikan) as feeding foods at this stage is very high and costly. Therefore, the LED lamp specifically with green spectrum could offer the best option to reduce stress among the larvae by providing sufficient environmental lighting for them to hunt abundance of natural food (zooplanktons) that available around the clock. The light spectrum is actually attracting zooplanktons available at ocean surface to pool around it which providing abundance of natural foods to the pelagic fishes. This collaboration project was between SIRIM Berhad and Alion Nation Solution Sdn. Bhd to improve the lamp design and develop an integrated technology solution, by producing a reliable product with proven functionality for expanding their business into new and niche market application.

TECHNICAL SPECIFICATION

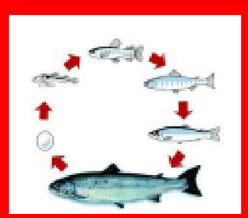


20-30%

Reduced commercial feeds

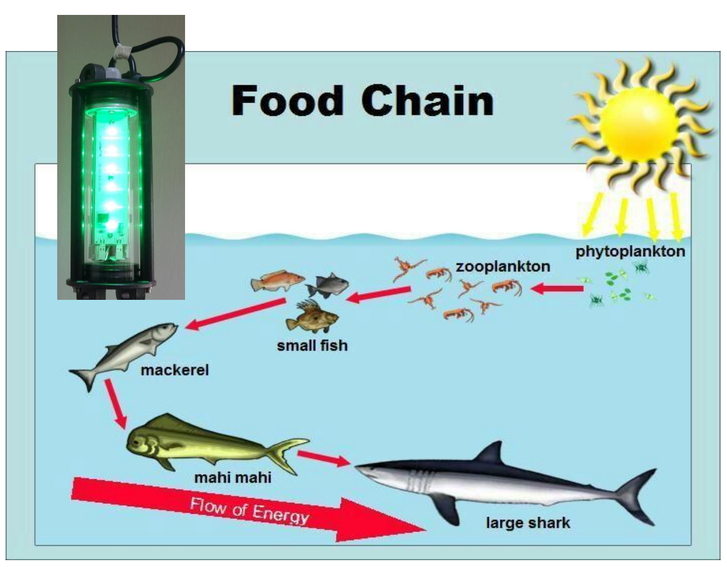
30-40%

Faster growth rate



Shorter harvesting cycle 20%

FIELD TEST STUDY



Best Partner for Innovation

For further information, do contact us :

NOOR ZALIKHA MOHAMED ISLAM *, NIK MOHD AZMI NIK ABDUL AZIZ, AHMAD ZAKI SHAARI, KHAIRULDIN MOHD ISHA, WEDIANTI SHUALDI, NORHIDAYAH ABU, MOHD SYAIFURIZWAN ABDUL AZIZ, MOHD NASHA'AIN NORDIN& KASHFI ISMAIL.

Industrial Centre of Innovation in Sensor, Lot 34, Jalan Hi-Tech 2/3, Kulim Hi-Tech Park, 09000 Kulim, Kedah

Tel: 04-4017100 Fax: 04-4033225 e-mail: nzalikha@sirim.my