

Biosecurity measures in specific pathogen free (SPF) shrimp hatcheries

Litopenaeus vannamei reared under feed restriction in biofloc technology system.

- The purpose of this theme is to evaluate feed restriction in biofloc system, *Litopenaeus vannamei* is considered to be warmwater species, in general they tend to have a greater tolerance for lower dissolve oxygen (DO) level.

- This is logical as warmwater will hold less oxygen so the species would be more likely to evolve mechanisms as technology this mean (mechanical and biochemical), this designs technology helps to deal with low DO environment in the systems.

The species tend also to tolerate higher levels of un-ionized ammonia. Again because of dynamic equilibrium whereby higher temperature (and pH with high level) shift more ammonia into the un-ionized form, warmwater species (*Litopenaeus vannamei*) are likely more to need to evolve good design system to deal with high concentrations, even feed restriction is taken into consideration in biofloc technology system.