

Giant freshwater prawn (GFP)

Macrobrachium rosenbergii (in SE and South Asia) – USD 2 billion/yr industry

M. spinipes (Australia and PNG) – no culture industry

- considered to be the same species until 2011
- farming practices well developed for M. rosenbergii

Both species require brackishwater for larval development in hatchery and then culture in freshwater ponds (upto 1 meter depth)

Feed naturally on pond detritus and plankton

Natural feed can be supplemented (or even completely replaced) with formulated feeds with relatively low animal/plant protein content (20 to 25%)

Growth cycle in ponds is 3 to 5 months depending on water temperature, so 2 cycles are possible per year in each pond

Stocking density needs to be much lower (5 to 10 per sq metre) than marine penaeid prawns (e.g. Tiger prawns) because of male aggression and cannibalism

Potential advantages of GFP farming in northern Australia:

- native species of excellent eating quality
- large individuals do not have strong 'off' flavour like some marine prawns
- pond maintenance is low compared with other marine prawn species
- water quality usually remains high without intervention or aeration
- disease issues are much lower than marine prawns providing stocking density is not pushed too high
- tolerant of wide variation in water quality, temperature and salinity
- energy and human resource requirements for farming are low except for 1 month hatchery cycle stage to produce PLs
- prices are higher or equivalent to marine prawns (AUD\$20 – 30/kg)
- simple semi-intensive culture systems would fit well into indigenous remote community lifestyles, this approach is common in South Pacific and in less developed areas in Asia
- does not require large, extensive pond systems to be cost-effective
- can be transported live in cool boxes without water or in wood shavings
- Males can grow to much larger size than females (upto 400+gms)
would be value high items for interior and remote tourist operations (single individual plate-size)
- farming can be operated and completed thru dry season if required
- formulated cheap artificial feeds can be made from local byproducts from plant agriculture
- ready market in Sydney (currently supplied from Asia)