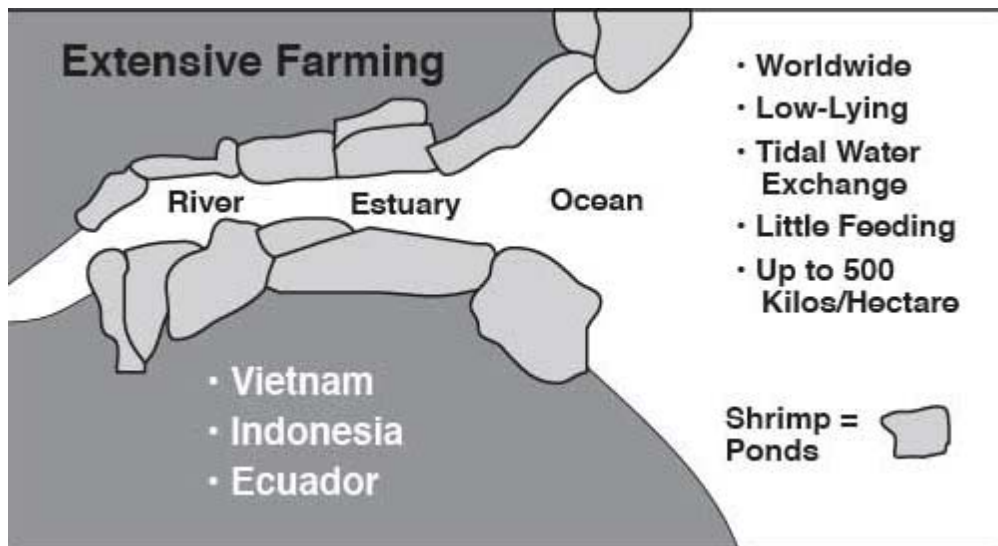


# Commercial shrimp production

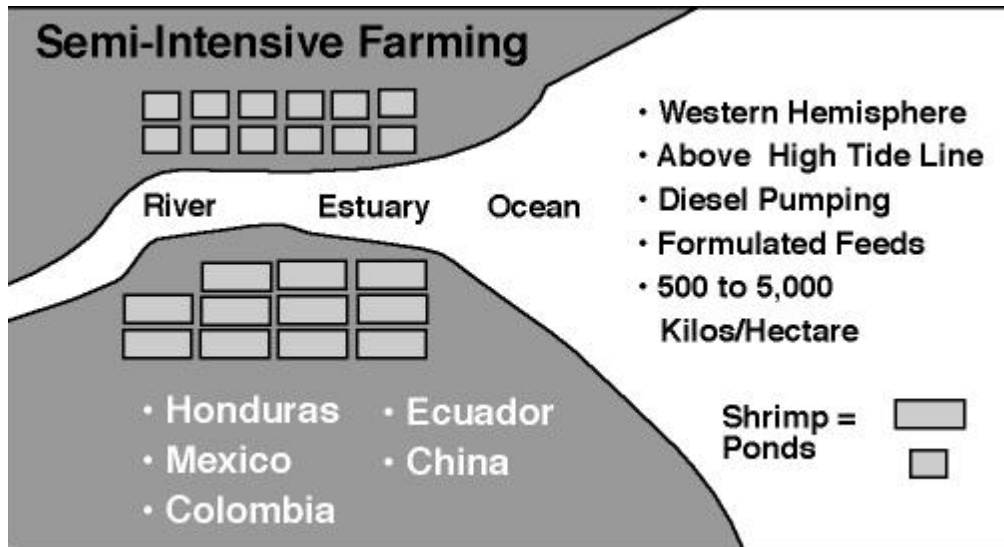




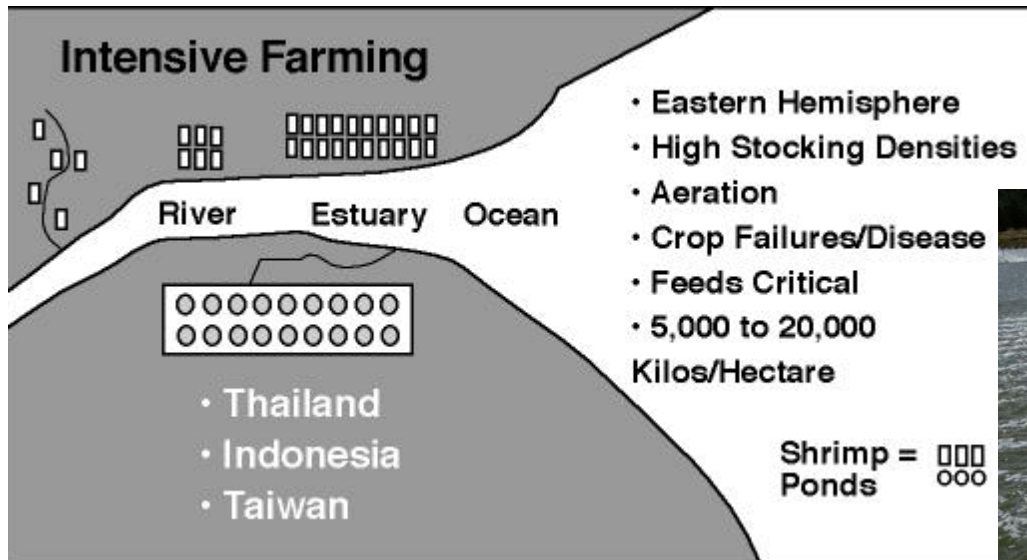
# Production techniques



# Production techniques



# Production



# Super-intensive flocc system

## Production



# Super-intensive flocc system

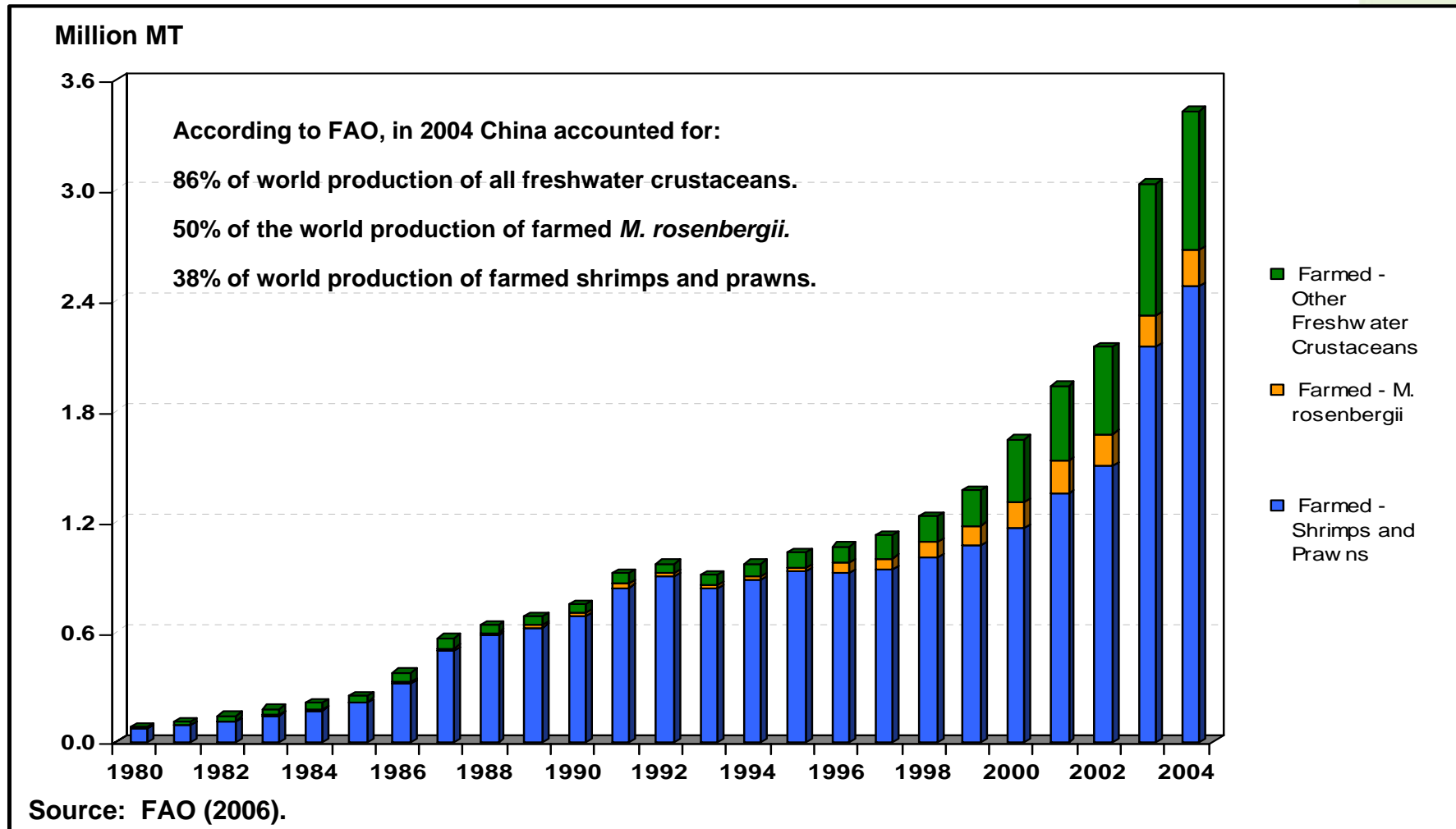
## Production



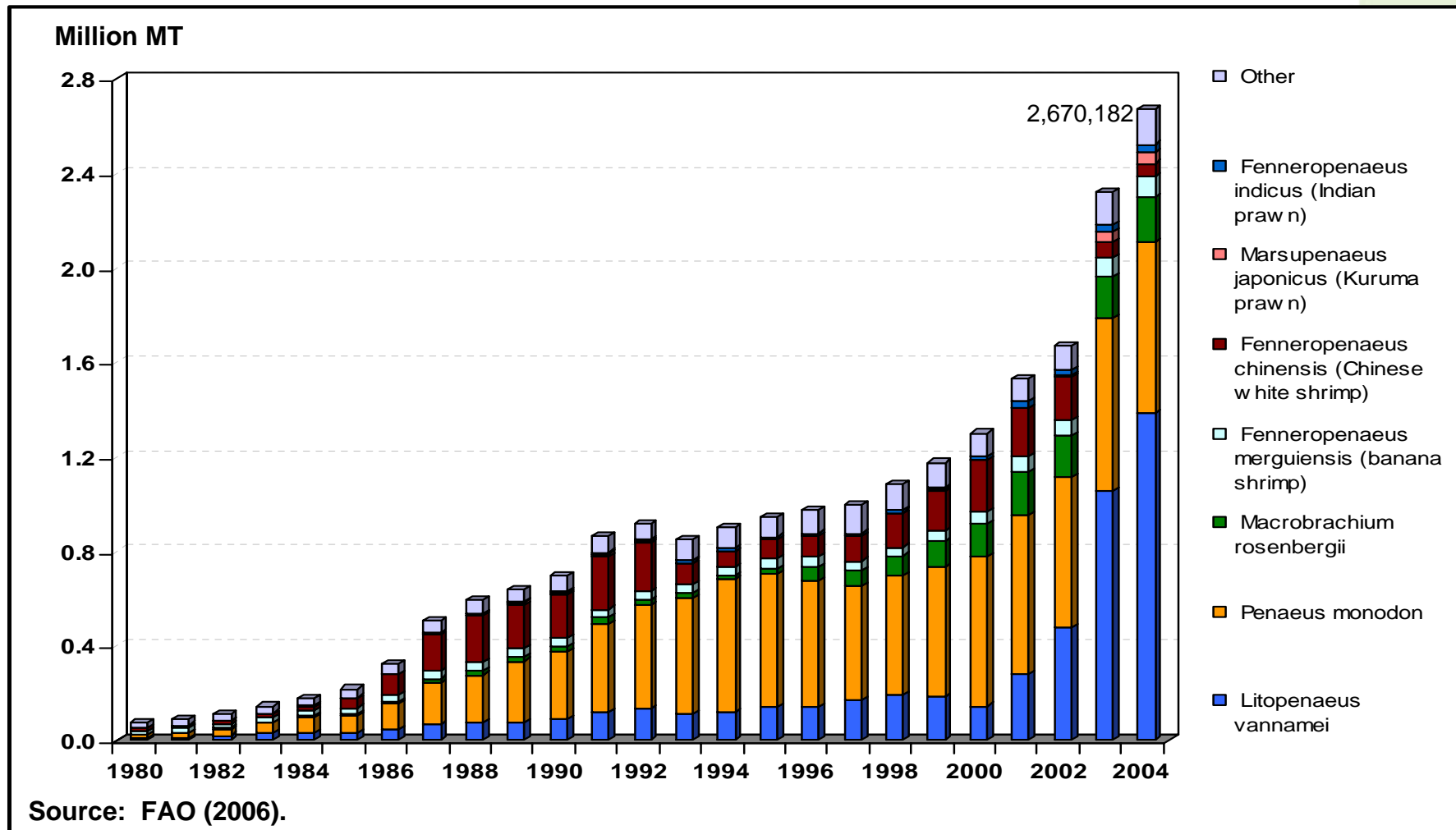
## Species

- Tiger prawn (*Penaeus monodon*) : Vietnam/India/Philippines
  - 35g/4m; <25/m<sup>2</sup>; disease/stress sensitive; limited broodstock
- White shrimp (*Litopenaeus vannamei*): L-Am; Thailand, Indonesia, China
  - 25g/4m; <100/m<sup>2</sup>; less sensitive; broodstock
- (*L. Stylirostris*): New Caledonia; L-Am
  - 20g/4m; more sensitive than vannamei + less broodstock
- (*P. Indicus*): Middle-East
  - Easy broodstock; adapts to higher salinities
- (*L. Chinensis*): China
  - extensive
- Kuruma prawn (*P. japonicus*)
  - Cool water sp; carnivorous; substrate bottom

# World Aquaculture Production of Shrimps, Prawns and Freshwater Crustaceans, 1980-2004



# World Aquaculture Production of Shrimps and Prawns (including *M. rosenbergii*) – 1980-2004



## Production

- Asia: > 1,500,000t; 70% *L. vannamei*; 25% *P. monodon*
- L-America: >450,000t; 99% *L. vannamei*
- Africa & Middle East: mainly *P. monodon* & *indicus*
- Australia: *L. vannamei*
- Europe:
  - *P. japonicus* in 300ha (S-Eur); live sales @26-45\$/kg
  - *L. vannamei*: Happy Shrimp (Rotterdam): greenhouse/waste heat: 150t/y?

## Farm prices

vs

## Production cost

- *P. monodon*

- 35g: 6-7\$/kg
- 16g: 2.7-4\$/kg

- *L. vannamei*

- 20g: 4\$/kg
- 14g: 3.1-3.4\$/kg

- *P. monodon*

- 35g: 4.2-5.2\$/kg

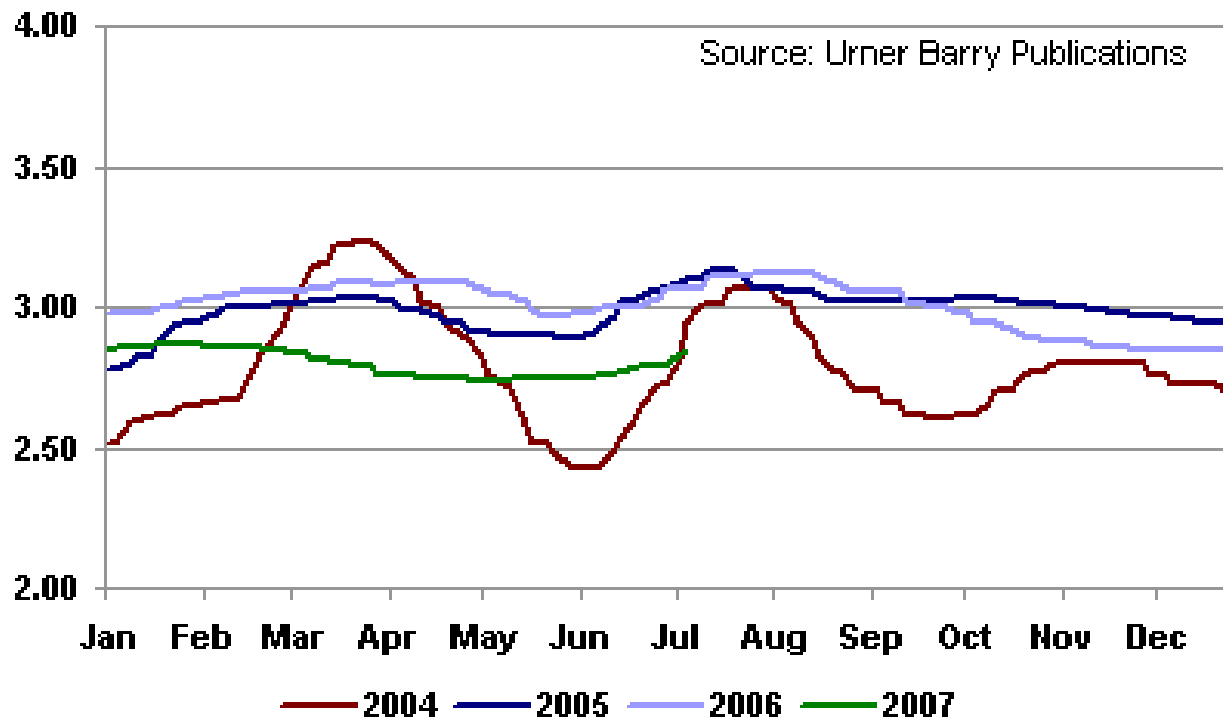
- *L. vannamei*

- 20g: 2.5-3\$/kg
- 14g: 1.2-1.4\$/kg



## Prices to distributor (\$/lbs)

Urner Barry's HLSO Farm-Raised White Shrimp Index



## Prices to distributor (\$/lbs)

