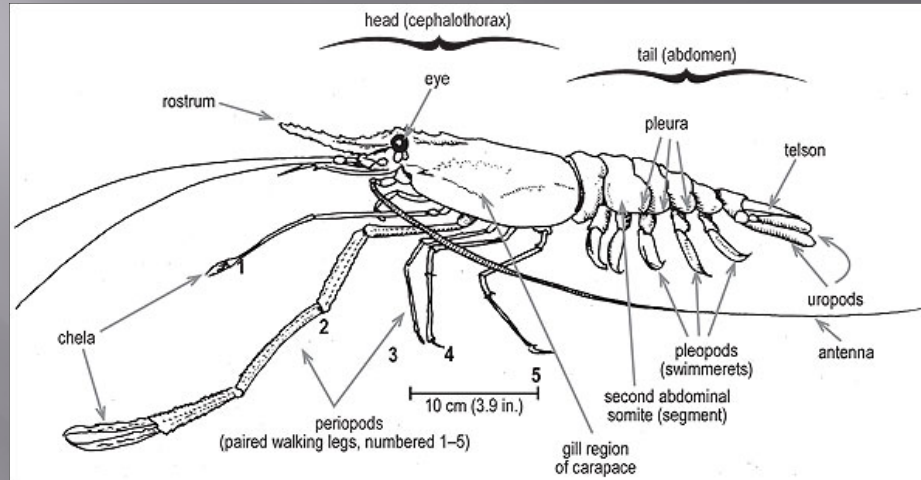


Freshwater Prawn Production



Freshwater Prawns

Malaysian Prawn, Macrobrachium rosenbergii



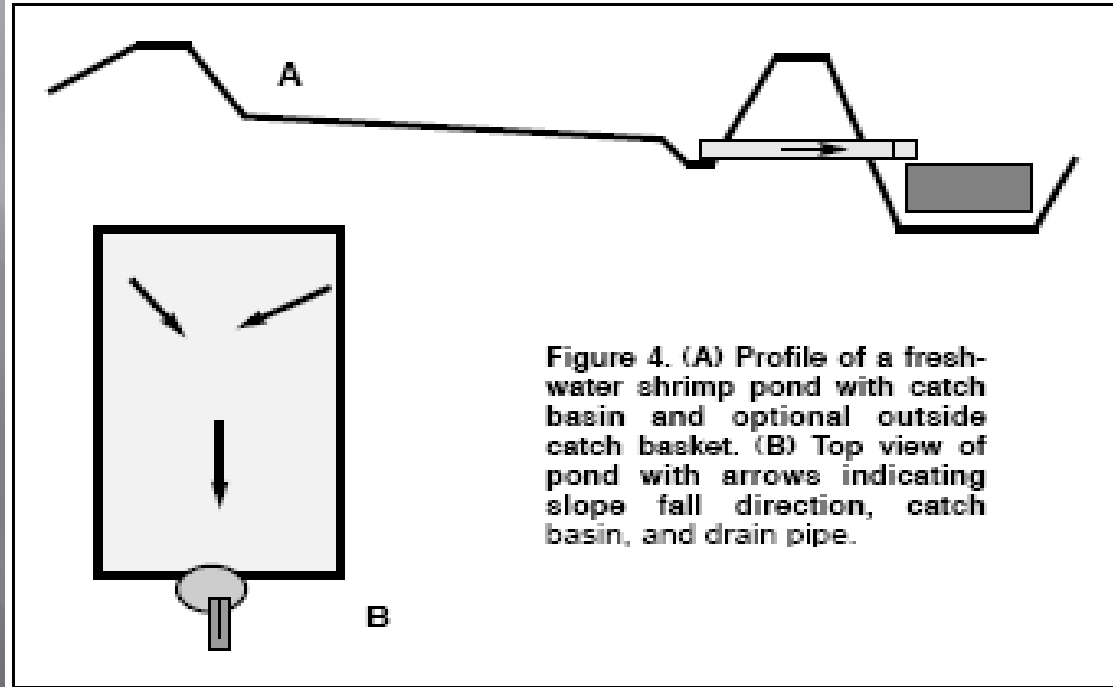
Culture more popular in the 90's in temperate regions as a result of research at Kentucky State U. and Mississippi State

<http://www.ksuaquaculture.org/PDFs/ShrimpManual%20text%20Apr.pdf>

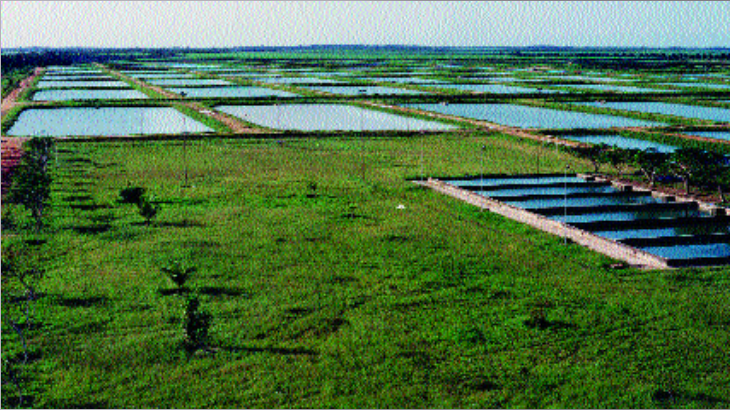
<https://extension.msstate.edu/sites/default/files/pdf//b1138.pdf>

Prawn Pond Requirements

- Soil must hold water.
- Do not locate ponds in flood zone.
- Check soil for presence of pesticides.
- Flat area with no rock is best.
- Pick area that has easy access for vehicles and access to electricity.



Prawn Ponds



Water Supply

Well water best supply.

Spring source is good but usually not available.

Larger pond supply, questionable, often necessary.

Streams or runoff water highly variable quality

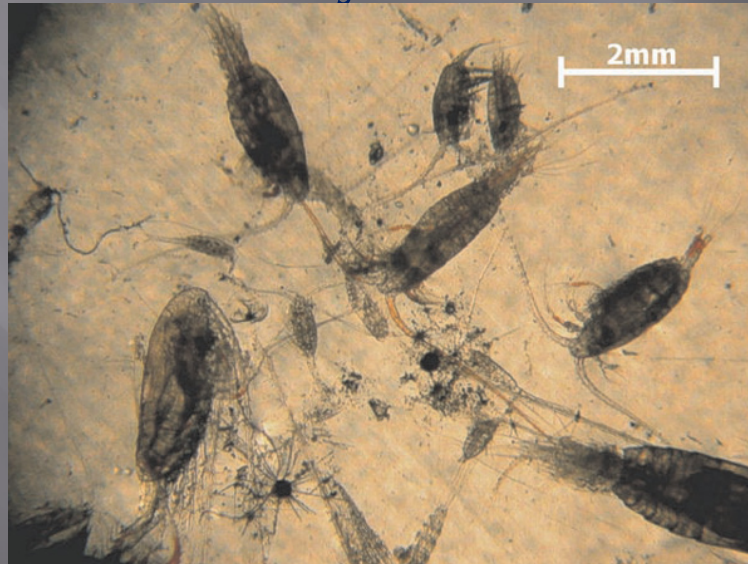
Midwest Management

Fill ponds Mid to Late March.

Fertilize with 50 ppm alfalfa meal and 25 ppm super-triple phosphate weekly.

Check zooplankton quality and quantity

Survival of post-larvae or juveniles dependent upon zooplankton availability



Stocking Juveniles Prawns



Buy from reputable producer. (see example at <http://www.aquacultureoftexas.com/index.htm>)
Stock in fertilized pond when temperature near 70°F.
Deliver to pond in transport truck if possible.
Stock 2,000 to 10,000 per acre.
Each individual prawn needs about >1 ft² bottom area.

Pond Management

After stocking check pond for zooplankton weekly, fertilize as necessary.

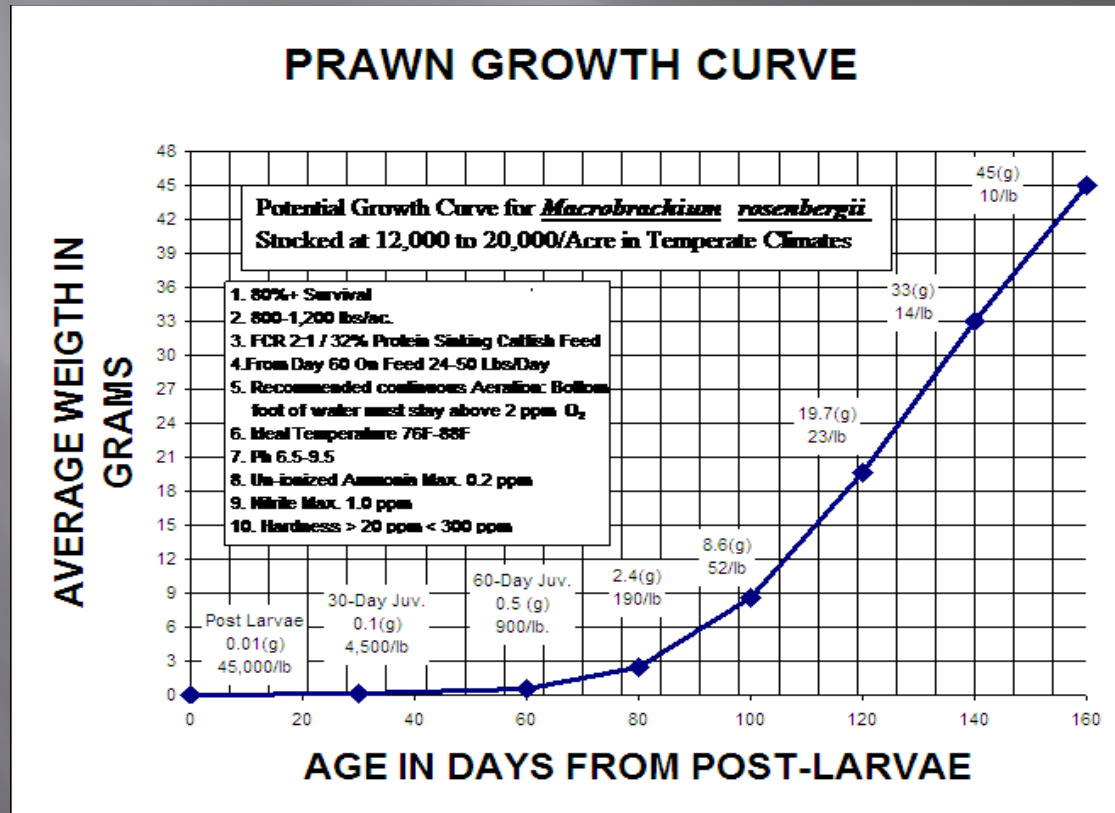
Start feeding after about two weeks. Shrimp feed can be purchased from farm store, or use sinking channel catfish feed (32% protein)

Check water quality daily; Add supplemental aeration if D.O. goes below 2 ppm.



Feeding Strategies

If juveniles less than 5 gms. no feed (zooplankton).
Feed once daily at 2.5 times estimated weight in pond
Estimate 1% loss of prawns per week.
Sample every three week with seine to estimate individual animal and total weight in ponds.



Water Quality

Equipment needed, water quality fish farming kit, dissolved oxygen meter.

Alkalinity should be above 50 ppm as CaCO_2 .

Dissolved oxygen should not go below 4.0 ppm.

Total ammonia nitrogen 1.0 ppm with pH 6.5 to 9.5.

Economics

Variable costs

Repair and maintenance	\$ 330
Fuel	120
Electricity	50
Chemicals (herbicides, fertilizer)	125
Feed (shrimp feed)	320
Labor (\$10 an hour)	320
Crushed ice	50
Transportation	50
Juveniles (9 cents each; stocking rate 12,000 per acre)	1,080

Total variable costs	2,470
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Fixed costs (Ownership costs)

Electric aerators	140
Water pump	50
Pond construction and collection structure	500

Total fixed costs	690
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Total costs	3,160
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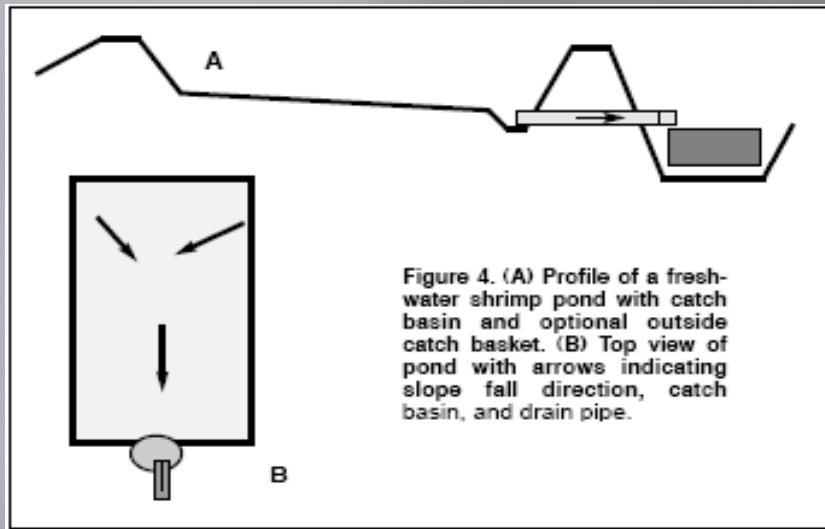
**A seven-year amortization schedule was assumed for calculating fixed costs on an annual basis, and a harvest of 1000 pounds per acre at a market price of \$8.00 per pound was assumed. In this scenario, gross revenue = \$8,000; net revenue = \$4,840. The break-even market price was \$4.84 per pound.*

Based on a cost of 9 cents each (\$90 per 1,000) for juveniles, an average feed conversion ratio of 2 to 2.5 pounds of feed for 1 pound of flesh, an expected average yield of 1,000 pounds of prawns per acre, and a pond bank selling price of \$8 per pound, a gross return of \$8,000 per acre can be expected. Revenue and profitability, however, depend on the marketing strategy used, as well as other fixed costs and labor costs.

For a thorough economic analysis of freshwater prawn production in temperate climates and more-detailed sample budgets, refer to the Southern Regional Aquaculture

<http://fisheries.tamu.edu/files/2013/09/SRAC-Publication-No.-4830-Economics-of-Freshwater-Prawn-Farming-in-the-United-States.pdf>

Drain and Harvest Pond



Missouri Sales

http://www.missourifarmertoday.com/news/livestock/farm-partners-find-shrimp-turn-good-profit/article_c17ec016-6bbd-5c6a-8ea1-2c197b8e1454.html

Harry Cope and Rusty Lee of Montgomery County, Mo harvested 24 count shrimp and selling them for \$10/lb

https://www.farmshow.com/view_articles.php?a_id=181

Paul Smith in central MO turned 5 lbs. of baby shrimp into 465 lbs. of freshwater prawns. At harvest, he had a party and made a little money.

http://agebb.missouri.edu/news/ext/showall.asp?story_num=6066

Harry Cope of Truxton MO raised his fourth consecutive crop of prawns this year