

## Experimental Pond Grow-out of Freshwater Prawn *Macrobrachium rosenbergii* with Different Feed Formulations



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## Objectives

Determine the effects of  
protein levels on  
freshwater prawn

- survival
- prawn yield
- count
- feed conversion
- tail yield
- molting rate
- size distribution
- percent gravid



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## Feed Types

- **Channel Catfish Feed**
  - pelletized
  - sinking
  - 32% protein
- **Shrimp Feed**
  - pelletized
  - sinking
  - 35% protein



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## Pond Preparation



- Drained ponds in Oct. 2000
- Checked soil pH and applied lime in Feb. 2001 at 2,400 kg/ha
- Flooded ponds and applied rotenone in May 2001 at 900 ml/pond
- Installed 1 HP electric aerator in each pond
- Stocked ponds in June 2001

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## Pond Stocking



- Transported 0.15-g PL's in live-haul truck, commercial hatchery, 30 minutes away
- Replaced half of tank water with pond water
- 6 batches of 5,000 PL's were transferred to buckets
- PL's were allowed to swim out of the buckets at their own pace

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## Pond Management



- Pond aeration running all the time
- Pond DO's and water temperature were checked daily
- Emergency aeration was added to ponds with critical DO level
- Nitrite, salinity and pH were checked bi-weekly

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## Pond Harvesting



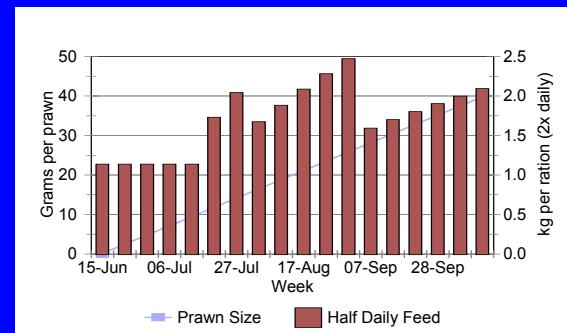
- Drained ponds, screened drain pipes and pumps
- Picked up prawns, harvest sumps
- Prawns were washed, weighed in baskets
- Prawns loaded into totes with crushed ice
- Prawns delivered to processing plant

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## Feeding Schedule



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## Feed Treatments

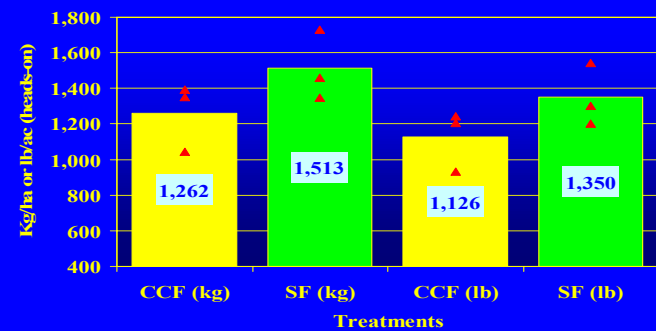
TREATMENT	DAYS 1-30	DAYS 31-60	DAYS 61-120
<i>A</i>	CSM	CCF 32	CCF 32
<i>B</i>	CSM	SF 35	SF 35

CSM - COTTON SEED MEAL

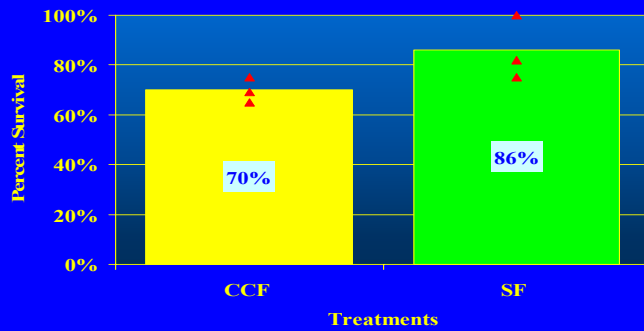
CCF - CHANNEL CATFISH FEED, SINKING, PELLET

SF - SHRIMP FEED, SINKING, PELLET

## Prawn Yield (heads-on)



## Prawn Survival

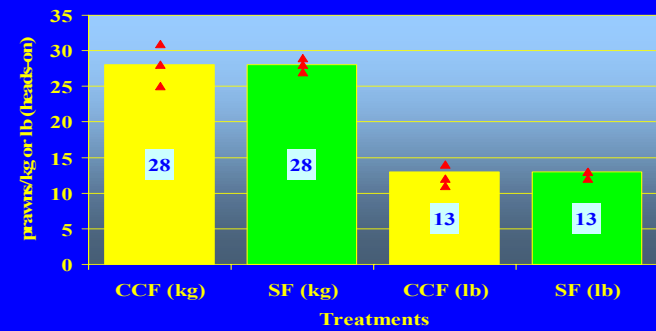


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## Prawn Count (heads-on)

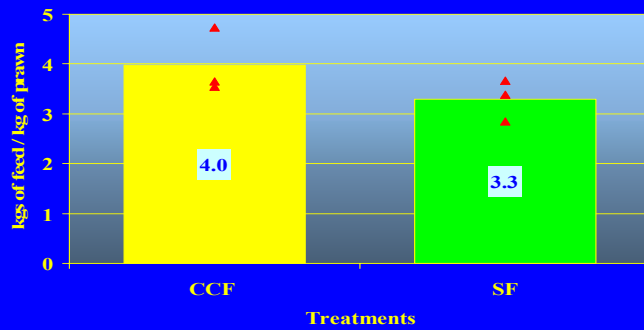


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## Feed Conversion

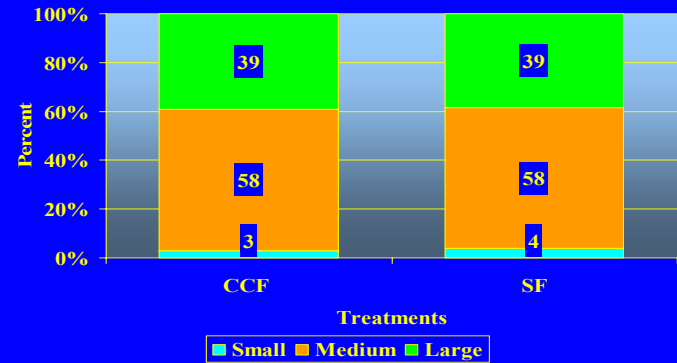


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## Prawn Size Distribution

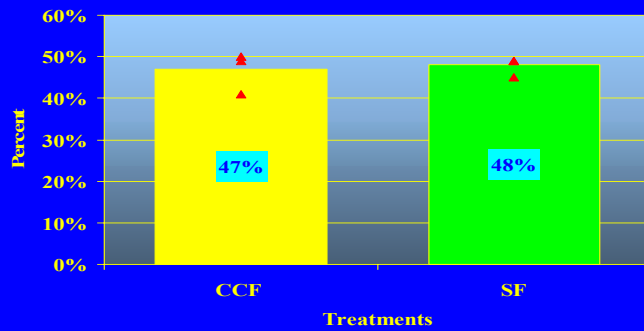


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## Prawn Tail Yield

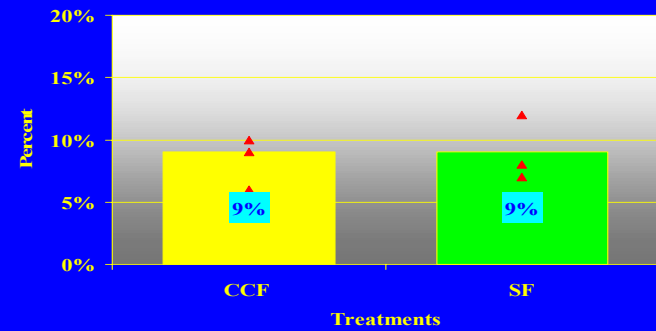


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## Prawn Molting Rate

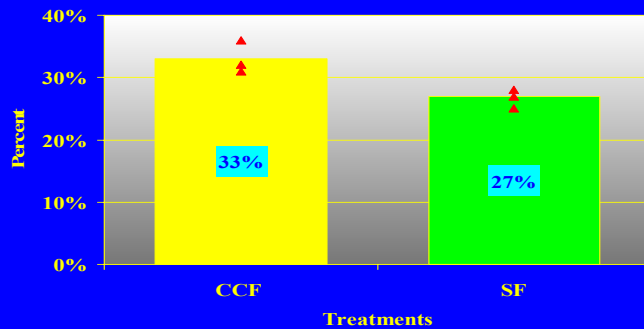


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## Gravid Prawn Females



## Single-enterprise Farm



\$329.5K per farm,  
\$6.6K per pond or  
\$3.2K per water acre

- 25 two-water-acre ponds
- harvesting sumps
- aeration equipment
- feeding equipment
- well & pump
- weed control equipment
- truck & storage building

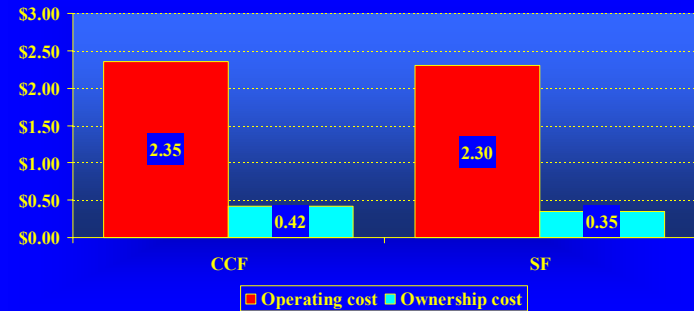
## Pond Construction Cost



- Earth moving (adjacent ponds)
- Drainage structure
- Gravel
- Vegetative cover

\$114.2 K per farm,  
\$2,283 per pond or  
\$1,142 per water acre

## Average Production Costs (Per pound, heads-on)



## Break-even Prices (Per pound, heads-on)

