

# Crawfish Culture



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Aquaculture



# Essential Ingredients for Commercial Crawfish Development

1. Good Soil
2. Adequate Water Source (65 gpm)
3. Aeration/Filtration Screen
4. Efficient Traps
5. Reliable Bait Source
6. Labor – management, harvest, marketing
7. Markets

# Crawfish Production Schedule

April – Pond Construction Completed

May-June – Ponds Stocked with Crawfish  
and Drained

June-August – Crawfish Forage Crop  
Planted and Grown

November – Ponds Flooded

April – Crawfish Harvest Begins

June – Ponds Drained, Forage Planted

# Water Quality Tests

## Crawfish

DO

## Finfish

DO

pH

TAN

Nitrite

Chloride

Hardness

Alkalinity

Iron

Sulfides

# Location

**Topography: flat, 6 inch contours**

**Soils: >15% clay content**

**Water Availability: 65 gpm**

# Pond Construction

Levees: 3:1 slope

3 feet tall

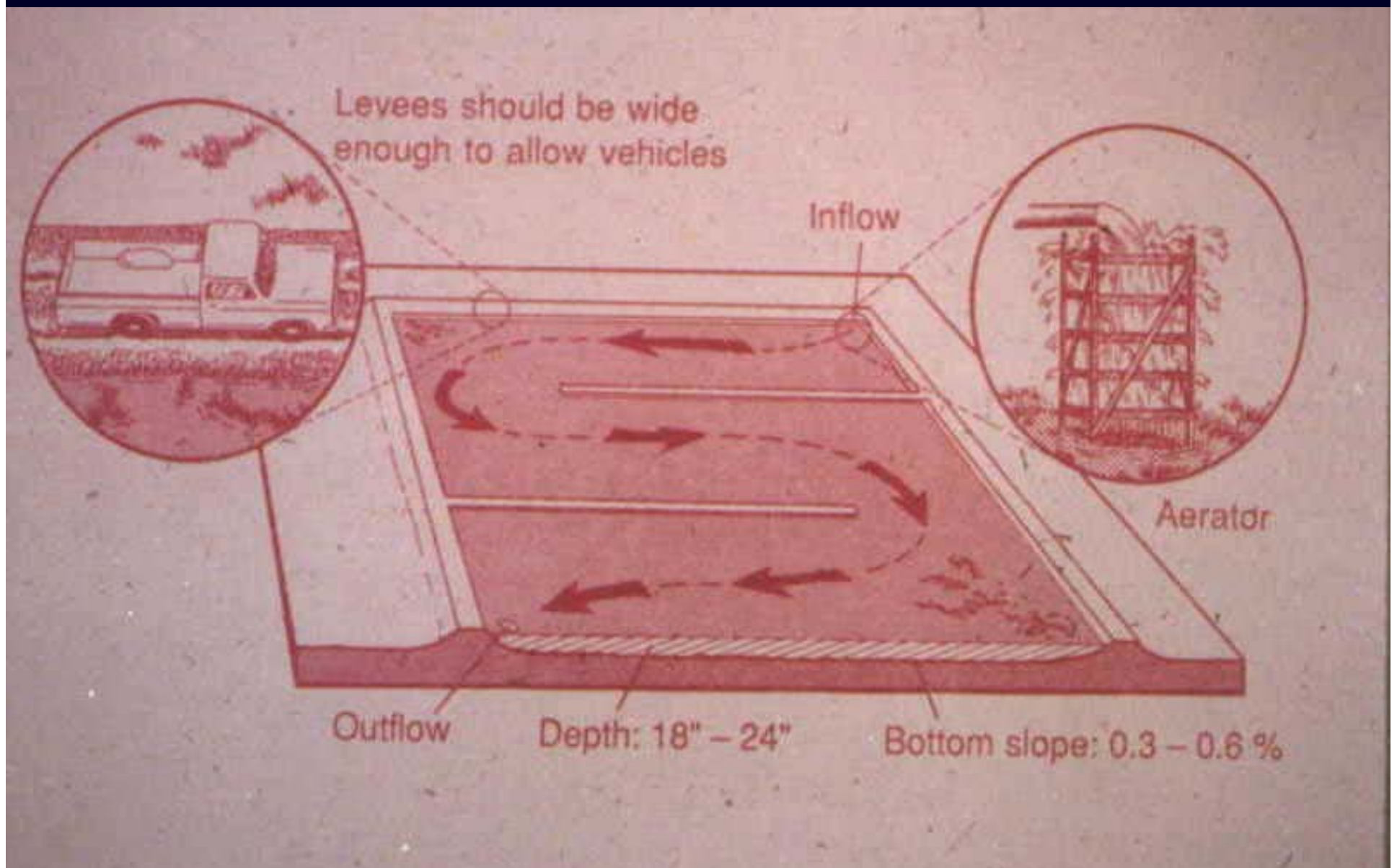
1-2 feet freeboard

1-15 foot top width

All weather top

Clean

# Pond Construction



# Typical NC Crawfish Pond



# Crawfish Pond Circulation



# Paddlewheel Aerator



# Pond Stocking

1000 lbs per acre

X 30 crawfish per lb.

30,000 per acre

- 50% survival

60,000 crawfish per acre

- 400 young per 4" female

150 females per acre

-30 crawfish per lb.

5 lbs. of females per acre

# Pond Stocking

5 lbs. of females per acre

- 20% gravid females

25 lbs. of females per acre

X 1:1 male:female

50 lbs. of crawfish per acre

Male



Female



## Gravid Female

### Egg Stages

None

White

Yellow

Tan

Brown

Black



# Stocking



Distribute 50-75 lbs. evenly throughout the pond

# Stocking



Drain Pond Slowly: 0.5-1.0 inch per day

# Stocking



Draining faster than 0.5-1.0 inches per day

# Forage

10,000 lbs. Per acre

Withstand a Flood

Low Decay Rate

# Forage

- Grain Sorghum  
(Milo)
- Sorghum-Sudan  
Grass
- Rice



# Fall Flooding

Date Depends on:

- ✓ Temperature
- ✓ Vegetation
- ✓ Pump Capacity
- ✓ Water Circulation

# Fall Flooding

Must Maintain Dissolved Oxygen Levels:

>3 ppm - - - - - Optimum

<2 ppm - - - - - Stressful

<1.5 ppm - - - - - Lethal

# Fall Flooding

Aeration/Filtration



# Fall Flooding

Aeration/Filtration



# Fall Flooding



Crawfish emerge from burrows -

# Fall Flooding



- Some females with eggs -

# Fall Flooding



- Some females with young-of-year -

# Growth Rates

Egg Maturation: 6 – 32 weeks

Incubation: 2 – 12 weeks

Maturation: 8 – 20 weeks

16 – 64 weeks

# Harvesting

20 Pyramid traps  
Per acre



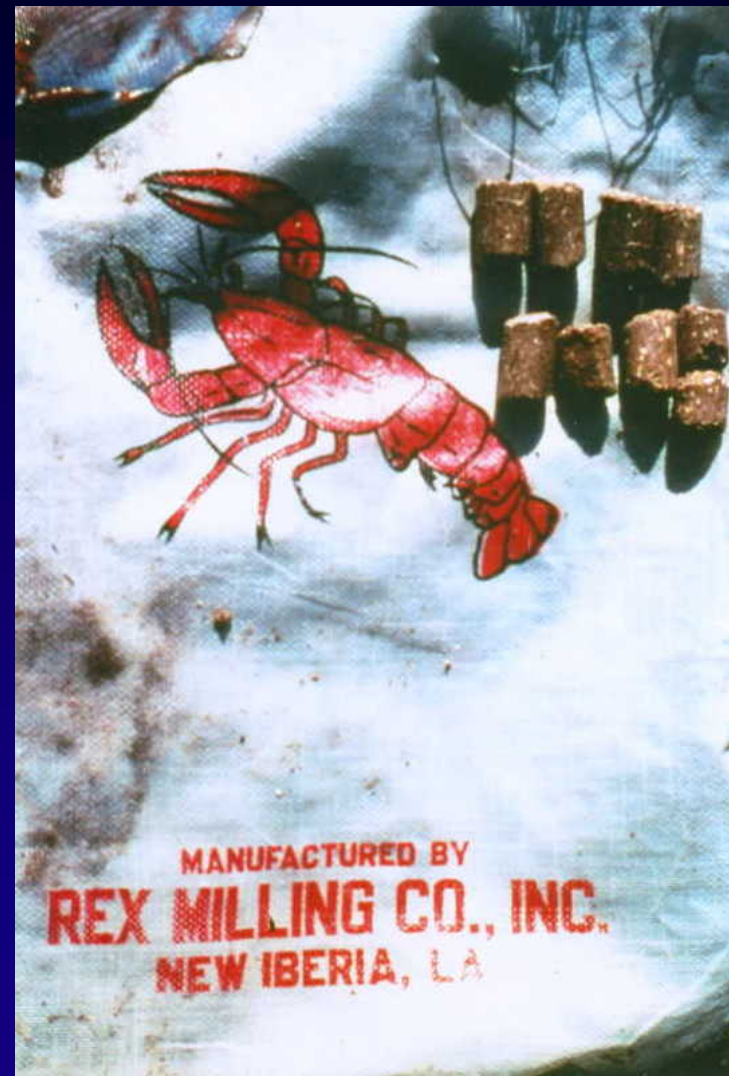
# Harvesting

$\frac{1}{4}$  lbs. Bait per trap:  
Oily fish like shad or herring  
works better in cooler  
weather



# Harvesting

1/4 lbs. Bait per trap:  
Manufactured bait easier to  
work with in warmer temps



# Harvesting

Crawfish Combines  
Make Harvesting  
Easier



# Harvesting



# Harvesting



# Harvesting



# Harvesting



# Holding



Keep them cool and moist!



# Marketing

Retail:      Restaurants  
                 Seafood Markets  
                 Individuals  
                 NCDA Farmer's Markets:  
                      Raleigh  
                      Lumberton  
                      Greensboro-Triad

# Marketing



# Synergistic Enterprises

