

Production Technology Update: Crawfish, Catfish

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New Crawfish Trap Material

- 3/4 inch square mesh (13/16)
- Catches slightly smaller crawfish than old wire
- More durable, especially at retainer ring



Crawfish Production Without a Forage Crop

- Research conducted as MS State Univ.
- Effort to intensify/maximize crawfish production

Crawfish Production Without a Forage Crop

Traditional

18-24" of water

Harvest – Nov.-May (April-June,
3months)

Forage Crop Planted

Forage Crop: Substrate

DO limitations: pump water

FCR: 10:1

Production: 500-1100 lb/ac

Stocking rate: 50-75 lb/ac

Size and Shape of Pond: What
works

W/O Forage Crop

4 feet

Harvest: Not Aug. 15-Sept.15 (11
Months)

Crawfish fed-28-30% protein,
Organic

Mesh Fence: 50% of bottom area

DO Managed: Aeration

FCR: 2-2.5:1

Production: 2200 lb/ac

Stocking rate: 75-100 lb/ac

Size and Shape of Pond: 3-5 ac,
rectangular

Crawfish Production Without a Forage Crop



Crawfish Production Without a Forage Crop

Increased Costs

Levee Height

Feed

Fencing

Labor: Harvesting,
Feeding

Increased Return

2-4X Production

AQUAFLO (florfenicol)

Schering-Plough

- Fast acting, broad spectrum
- Used worldwide – salmon, trout, others (U.S. - channel catfish)
- Used exclusively in farm-raised fish and food animals (non-human)
- Currently labeled for ESC in CC (eventually other pathogens and other species)
- Very effective for ESC, 0.8% mortality vs 60%
- Highly palatable to catfish – fingerling through food fish

AQUAFLO (florfenicol)

- VFD (Veterinary Feed Directive) drug
 - Assigned to all new in-feed drugs
 - Mills need valid Medicated Feed Mill License (FDA)
 - Producers must get signed VFD form from Vet. or Vet. Lab
 - Producer must contact Vet for diagnosis and treatment
 - Vet determines that VFD medicated feed necessary
 - Must have a Vet-Client-Patient relationship
 - Vet issues a signed triplicate VFD order
 - Must keep a copy of VFD order for minimum of 2 years
 - Must provide VFD order for review and copying for FDA during inspection

AQUAFLO (florfenicol)

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 - Mills need valid Medicated Feed Mill License (FDA)
 - Producers must get signed VFD form from Vet. or Vet. Lab
 - Veterinarians must have sufficient knowledge of animals to issue at least a preliminary diagnosis – must see or be directly knowledgeable of farm
 - Vet must keep records for 2 years
 - Vet cannot write an AQUAFLO VFD order for any other aquatic species

AQUAFLO (florfenicol)

VFD regulations were developed by a coalition of members in the animal health community to better control new therapeutic antimicrobial drugs. The system will help reduce antibiotic resistance and prolong effectiveness of new antimicrobials and other in-feed therapeutics through judicious use.

“New” Catfish Seine Equipment

Designed by MS State Univ. in collaboration
with NMFS Lab in Pascagoula, MS

“New” Catfish Seine Equipment

- Braided polyethylene square mesh
- Modified Mud Rollers
- Large seine tunnel
- Industrial strength zipper system



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- Braided polyethylene mesh
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- Large seine tunnel
- Industrial strength zipper system
- Tested at National Warmwater Aquaculture Center
 - Average 20% better catch
 - Seine time reduced 45%

Managing Ammonia in Catfish Ponds

- Where does it come from?
- Where does it go (“sinks”)?
- When is Ammonia most likely to be a problem?
- Ammonia Management options

Managing Ammonia in Catfish Ponds

- Where does it come from?
 - Fish excretions – feeding rate, protein level
 - Diffusion from pond sediment
- Where does it go (“sinks”)?
- When is Ammonia most likely to be a problem?
- Ammonia Management options

Managing Ammonia in Catfish Ponds

- Where does it come from?
- Where does it go (“sinks”)?
 - Algae and plants
 - Bacteria
 - Volatilization of gas to atmosphere
- When is Ammonia most likely to be a problem?
- Ammonia Management options

Managing Ammonia in Catfish Ponds

- Where does it come from?
- Where does it go (“sinks”)?
- When is Ammonia most likely to be a problem?
 - Winter
 - Algae crash
 - Late afternoons – summer, early fall
- Ammonia Management options

Managing Ammonia in Catfish Ponds

- Ammonia Management options
(What can you DO?)

Managing Ammonia in Catfish Ponds

- Ammonia Management options
(What Can You Do?)
 - Not Much!
 - Measurements – Snapshots
 - Acclimation
 - Manage Pond!