Species Selection

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Bringing Knowledge to Life
Getting Started in Aquaculture

1) Learn about the aquaculture industry
   Is Aquaculture for you?
2) Assess your goals and resources
3) Determine what system to use
4) Select your species
5) Construct your business plan
6) Conduct a pilot operation
Species Choices

**Food Fish**
- Yellow Perch
- Trout
- Tilapia
- Bluegill/Hybrids
- Largemouth Bass
- Hybrid Striped Bass
- Freshwater Prawn
- Paddlefish

**Sportfish/Pond stocking**
- Largemouth Bass
- Catfish
- Yellow Perch
- Trout
- Bluegill/Hybrids
- Striped Bass
- Baitfish
- Ornamentals
- Aquatic Plants
Yellow Perch

- Ponds, cages, RAS, aquaponics
- Fingerlings, pond stockers, food
- Takes 18 months to 8” market
- Optimum temp. 55 – 78 degrees F
- Stocking density 3000 lbs/acre
- High demand
- Gaps in production
  - Fingerling availability/price
  - Genetic selection (30-40% larger)
  - Sexual dimorphism
  - Nutrition
  - Year-round spawning
Bluegill/hybrids

- Ponds, cages, RAS, Aquaponics
- Sold as pond stockers, food, bait
- Great tasting fillet
- Gaps in Production
  - Low dress-out (30%)
  - Sexual dimorphism
    - All-male populations
  - Fingerling availability
  - Nutrition
  - Marketing
Freshwater Prawn (aka shrimp)

- Grown in ponds
- Sold for food ($8.00 - $15.00/lb)
- 100-day growing period (Jun – Sept)
- Must have good marketing
- Optimum temperature range is 77 – 90 degrees F
- Yields are 600 – 1000 lbs/acre/year without substrate
- Gaps in production
  - Variable yields
Trout

- Raceways, ponds, net pens, RAS
- Food and sport fish
- Optimum temp. 50 – 60 F
- Need lots of cold water
- Market size is from 0.5 to 1.5 lbs.
Largemouth Bass

• Ponds, RAS
• Food and pond stocker
• Popular in Asian market
• Three year grow out
• Optimum growing temp. 55 – 80 degrees F
• Market size is from 1.25 to 2.5 lbs
• Possible paylake market!
Tilapia

- RAS, cages, ponds
- Food – Live ethnic markets
- Algae control
- Warm water 80 – 87 F
- Mortality below 55 F
- Market size is 1.25 – 2.0 lbs.
- Competes with imported processed product
- Popular for aquaponics
- Hardy
- Poor dress-out for fillets
Koi/Ornamentals

- Ponds, RAS, cages
- Goldfish 70 F, Koi 55 – 80 F
- Market size for goldfish is 1 – 6 inches, and koi 3 – 12 inches
- High value if you understand markings
- Backyard garden market follows economy
- Indoor coral farm
- Angelfish farm
Baitfish

- Ponds, RAS
- Entertainment, pond stocking
- Product sold live
- Minnows- Fathead, Chubs, Bluntnose
- Shiners- Spotfin, Golden
- Crayfish
Catfish

- Ponds, cages
- Sold as pond stockers, food
- Warm water fish 80 – 85 F
- Market size 0.75 to 2.5 lbs
- Popular paylake fish
- Hard to compete with cheap catfish from the south
Striped Bass

- Ponds, cages, RAS
- Food, pond stocker
- A warm water fish that grow in 77 – 86 degree F water
- Market size from 1.5 – 3.5 lbs.
- Push for cage culture in Illinois
- Fingerlings from Arkansas
Walleye

- Ponds
- Popular food fish
- Popular pond stocker
- Mostly sold as fry or stocker size
- Grown in Minnesota and Wisconsin
Paddlefish

• Large bodies of water > 5 acres
• Passive aquaculture
• Fillets and caviar
• Fillets=3 years
• Caviar=5-7 years
• Reservoir ranching
• Polyculture
Aquatic Plants and Others

- Ornamental pond plants
- Frogs
- Tadpoles
- Snails
Marine Shrimp

• RAS
• Pilot scale operation in Michigan
• New in Las Vegas
• Multi-million dollar facilities
• Wonderful product
• Future?
Reality Check

• Our enterprise budgets show that there is little profit to be made simply growing fish for food.

• You must think about becoming vertically integrated (hatching to marketing)

• You must think about adding value
  – Niche markets
  – Processing
  – Agri-tainment
  – High value species
Business Planning

- Very important
- Five years for profitable business
- Several on-line business plans
- We can help you develop a business plan.
Contact Information

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