Live Haul Aquaculture Marketing & Advantages of Collective Sales

Illinois Aquaculture TechSERV
Center for Fisheries, Aquaculture, & Aquatic Sciences

Paul Hitchens
Southern Illinois University - Carbondale
Life Science II
1125 Lincoln Drive – Mail Code 6511
Carbondale, IL 62901
Phone: (618) 453-5590
Email: hitchens@siu.edu
What is Aquaculture?

Aquaculture is the production of aquatic animals and plants under controlled conditions for all or parts of their lifecycles.

* Interest in aquaculture production is on the rise because restrictions on the wild harvest of many seafood species may diminish wild harvest seafood supplies. During the last two decades, the value of U.S. aquacultural production rose to nearly $1 billion. (USDA 2012)
Diversity in Illinois Aquaculture

Cages

Prawn Ponds

Fish Ponds

Indoor Tank Systems
Illinois Aquaculture Industry:
Total Food Fish Sales: 2005 - 2017
Aquaculture Species in IL

* Largemouth Bass
* Hybrid Striped Bass
Channel Catfish
Freshwater Prawn
Rainbow Trout
Tilapia
Hybrid Sunfish
Yellow Perch
Paddlefish
Triploid Grass Carp
Minnows
Other Species
## IL Aquaculture Facilities Species Distribution

<table>
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<th>Species</th>
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<tr>
<td>Hybrid Striped Bass</td>
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<td>Largemouth Bass</td>
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###SIUC-Fisheries
Illinois Aquaculture TechSERV
Species Distribution Location
Largemouth Bass

- **2005** - 6 New Producers & 87,410 Lbs. Harvested
  * Price = $4.65-$4.85/Lb.
- **2009** – 22 Producers & 241,173 Lbs. Harvested
  * Price = $4.25-$4.50/Lb.
- **2015** – 19 Producers & 409,700 Lbs. Harvested
  * Price =$5.00-$6.25/Lb.
- **2017** – 20 Producers & 673,534 Lbs. Harvested
  * Price =$5.30-$6.00/Lb.
Hybrid Striped Bass:

2001 – 1 Producer and 5,000 pounds harvested

2006 – 22 Producers and 220,369 pounds harvested
* Price = $2.85-$3.00/Lb.

2015 – 16 Producers and 150,257 pounds harvested
* Price = $4.00-$4.25/Lb.

2017 – 12 Producers and 91,530 pounds harvested
* Price = $4.10-$4.25/Lb.
Overall HSB Aquaculture Production in the US (2016):

- 10,007,793 Total Lbs.:
  * 7,937,952 Lbs. = On Ice Market Sales
    or 79.3% of sales
  * 2,069,841 Lbs. = Live Market Sales
    or 20.7% of sales
Channel Catfish

2000 – Initial Farms
* Price = 0.80/Lb.

2006 – 151,280 Lbs. harvested
* Price = 0.80/Lb.

2008 – 18,066 Lbs. harvested
* Price = 0.80/Lb.

2017 – 0 Lbs. harvested
* Price = $1.25/Lb.

- Processed
- Pay Lakes
- Live Haul
IL. Freshwater Prawn

2000 – 1 Grower : 510 Lbs.
  * Price  = $5.00/Lb.

  * Price  = $5.00/Lb.

2009 – 8 Growers :1,680 Lbs.
  * Price  = $8.00/Lb.

2017 – 0 LBS.
Rainbow Trout

Off-season crop raised in Freshwater Prawn ponds

2005 – 4 Growers & 7,000 Pounds
* Price = $1.75/Lb.

2008 – 1 Grower & 2,000 Pounds
* Price = $3.50/Lb.

2017 – 0 Growers & 0 Pounds

Fee-Fishing
Tilapia

2005 – 2 Producers & 12,600 Lbs. Harvested

*Price = $1.75-$1.80/Lb.

2009 – 7 Producers & 48,794 Lbs. Harvested

*Price = $2.70/Lb.

2017 – 0 Producers & 0 Lbs. Harvested

*Price = $2.35/Lb.
Tilapia Markets - US Importation:

A. Country of Origin %'s:
1. China = 84%
2. Taiwan = 7%
3. Indonesia = 4%
4. Thailand = 1%
5. Vietnam = 1%
6. Honduras = 0.5%
7. Other = 2.5%

* Eliminate competition with foreign imports by selling live product
IL Harvests = 100% Live Market
Know your States Regulations Regarding Live Hauling:

- April 2014 = APHIS lifted the VHS order first issued in 2006 and deregulated it to the state level
- Contact your State’s DNR for Regulations on transport of live fish species
VHS Viral Screening:
1. Susceptible species
2. 28 Days for results
3. Valid for 1 year
• We have an idea of what species to grow, what we can transport, and an approximate selling price; so who do we market them to?
Wholesalers:

- Your preferred target buyer
- Will pick up at your farm or accept delivery at plant
- Take larger volumes of product on a weekly basis
- Store at warehouse & redistribute to multiple retail markets
Retailers:

- Take smaller volumes of product from the wholesaler
- Sales are direct to the general public
- Live products are killed at this point and usually gutted for the final consumer
What Do Buyers Want? (Wholesalers & Retailers)

1. A fair market price.
What Do Buyers Want? (Cont.)

2) A good, consistent quality product:
   * Proper size: 1.5 Lb. average weight
   * Correct quantity
   * Accurate total weight
   * Healthy product for increased longevity
3) Accessibility to farm for pick up
4) Assure the truck returns fully loaded
5) The fish loaded immediately at farm
    * no waiting
What Do Buyers Want? (Cont.)

6) Travel the least amount of miles possible to load the product
7) Year around production or access to product
   * Collective Marketing
8) A variety of species to fill their customer needs
Buyer Expectations Continued:

- **Convienience:**
  * One contact or broker who can deliver the species they prefer at the amounts they need.
- **24:7 access to broker and producer pick ups**
- **Someone knowledgeable or experienced in industry**
- **Broker to be present at harvest whenever possible**
- **Respectful, congenial personality with sense of humor**
- **Any export/import paperwork or health certificates to be in order**
- **Flexibility**
- **Honesty ("the product should sell itself")**
- **Consideration:**
  * Work with buyer on problem shipments to reach a fair agreement
- **Loyalty/Commitment:**
  * Priority to best buyers
• Meet buyers in person whenever possible
Tips for Maintaining a Quality Product for the Live Market:

- Discontinue feed 4-5 days before harvest
- Seine fish 2-3 days prior to live hauling for purging in holding tank
Holding Tank Procedures:

- Maximum temperature change difference = 10 degrees Fahrenheit
- Maintain flow through system with well water if possible
- Maintain salt concentration at 3-5 ppt.
- Maintain oxygen concentration > 10 ppm
- Oxygen Saturator
Stocking Densities:

- Do not exceed stocking densities of 1 Lb./Gal. in holding tank for LMB

  * Utilizing pure oxygen(gas or liquid)
Haul Truck Data:

- Adjust water temperatures = 45-60 degrees Fahrenheit
- Maximum temperature change difference = 10 degrees Fahrenheit
- Maintain salt concentration at 3-5 ppt.
- Maintain oxygen concentration @ 15-25 ppm
- Check quality of fish & oxygen in all tanks before departure
Hauling Densities:

- LMB : Maximum = 2 Lbs./Gal. on hauls of 24-36 hrs.
- HSB : Maximum = 1 Lb./Gal. on hauls of 24-36 hrs.
Record Keeping:

- Record oxygen & temperature readings of pond/holding tank and haul truck before and after loading
- Maintain copies of load sheet & bill of lading. Send originals along with VHS/health certificates with hauler
Average Weights:

- Weigh & record **average** weights on each harvest cage or tank and record on load sheet for future reference.
The Future of Live Market Sales in the North Central Region:

- Climate is conducive to aquaculture for a variety of species
- Species may evolve, depending on current markets and trends
- Growers can supply buyers with high quality products
- Relative short distance to major markets provides a competitive advantage over southern and western states
- Foreign imports of fresh or frozen products will not affect our “live market” sales
- Collective Marketing can ensure a more steady supply of products for markets throughout the U.S. and Canada
- Expansion of aquaculture will assist in meeting the growing seafood consumption in the future
The Future of Aquaculture in the North Central Region Continued:

• Increases in production costs may influence profitability:
  1. High costs of feed directly related to elevated fish meal & fish oil prices
  2. Increase in fingerling prices for stocking
  3. Increased regulations may affect profitability
• Foreign exchange rates
• Lack of funding may jeopardize services provided by state institutions to growers for aquaculture extension, providing technical services and marketing assistance to farmers
## DISTANCE/TIME TO MARKET

Distance and Time from Intersection I-57 and I-64

<table>
<thead>
<tr>
<th>City</th>
<th>Miles</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>764</td>
<td>13</td>
</tr>
<tr>
<td>New York</td>
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<tr>
<td>Denver</td>
<td>923</td>
<td>15</td>
</tr>
<tr>
<td>St. Paul</td>
<td>643</td>
<td>11</td>
</tr>
</tbody>
</table>
* The North Central region is within a one-day ground transportation radius of almost 75% of the total US population (>243,000,000 people)

* A live fish that is harvested this morning can be served tomorrow for lunch in any restaurant throughout out this entire area.
Working together is the key to Successful Aquaculture!
Thank you for your attention!