Kentucky Mobile Processing Unit (MPU)

Helping small farmers compete in a big world....

Presented by:
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Selling meat, chicken and fish at open markets...can be hazardous!
Doesn't have to be a hazard!
Introduction...

- Small farmers with limited markets
- Large processing facilities were available
  - the issues
  - the limitations
Action……

• Identified

• Several small farmers with limited access to market.
• Insufficient volume for processors and additional fees
• Limited to selling whole live products.

GOAL....

• Produce safe products for any market
  • Direct: farmers market, consumers, restaurants
  • Wholesale or retail

• MPU Plan

Collaboration of experts
Partners were born....

- Kentucky Department of Agriculture
- Kentucky State University (Small Farmers)
- University of Kentucky (Poultry Specialists)
- Partners for Family Farms (3rd Party fiscal agent)
- KY Department of Health (Approvals and Certification)
- Heifer International (Granting Agency)
- USDA (Inspection, permitting and regulations)
The Plan

- Develop a facility that can process safe/clean products
- Develop a training program to teach clean methods of processing for facility managers
- Develop a training manual that includes all processing protocols:
  - Animal treatment: feed withdrawal, disease and injury
  - Flow charts
  - HACCP plans
  - SOPs
  - SSOPs
  - First aid
  - Waste removal
Design and Development of the MPU
Design and Development of the MPU
Docking station

- Concrete Pad:
  - Level location to park trailer so appropriate drainage of wastewater in trailer can be achieved.

- Waste Water Treatment:
  - Catch basin must drain into an approved wastewater treatment facility.

- Potable Water:
  - Flow rate must be at least 10 gallons per minute.
  - Supply hoses will be provided with the MPU.

- Electricity
  - Three prong 210 hook up.
Components....
Components.....
Work Areas

Chill

Packaging Area with Scale
Processing....
Processing.....
### Flow chart

#### Finfish Flow Chart

For MPU Processing

- Finfish are harvested
- Finfish are chill killed in ice water for 10 minutes
- Finfish are shipped and or received in refrigeration or on ice
- Finfish are de-headed, gilled and gutted, steaked, filleted, bulleted
- Finfish products are rinsed and inspected
- Products are placed in ice water to reach 40°F within 60 minutes
- Finfish are weighed, packaged and labeled
- Refrigerated product
- Frozen product

- Vacuum Packed

- Stored on ice at lower than 40°F
- Stored frozen at or below 0°F until use
- Transport on Ice or Refrigerated
- Transport Frozen

### HAZARD-ANALYSIS WORKSHEET Finfish

<table>
<thead>
<tr>
<th>Ingredient/processing step</th>
<th>Biological</th>
<th>Chemical: Pesticides, Antibiotics</th>
<th>Physical</th>
<th>Are any potential food-safety hazards significant? (Yes/No)</th>
<th>Justify your decisions for column 3.</th>
<th>What preventative measures can be applied to prevent the significant hazards?</th>
<th>Is this step a critical control point? (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Fish will be chill killed or harvested and received and on ice</td>
<td>CCP 1</td>
<td>Certificate indicating proper drug usage and withdrawal accompanying all lots of incoming pond-raised products.</td>
<td>Yes</td>
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<td>Certificate accompanying all lots indicating that the fish were not harvested from water that was so contaminated by chemicals as to make it reasonably likely that the levels in the fish flesh would be in excess of established tolerances, action levels or guidance levels.</td>
<td>Yes</td>
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<td>Holding</td>
<td>Yes</td>
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<td>Fish will be either refrigerated or held on ice and are processed as quickly as possible.</td>
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<td>Holes in fillet or cut out of ice or refrigeration could risk rise pathogenic growth.</td>
<td>No</td>
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<td>Product needs to be chilled quickly to slow pathogen growth.</td>
<td>No</td>
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<td>Fish will be chill killed or harvested and on ice.</td>
<td>No</td>
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</table>

- Firm Name: KSU MPU
- Address: Frankfort, KY 40601
- Prepared by: Angela Caporelli 08/06/12
- Method of Storage and Distribution: Packed Refrigerated or frozen
- Intended Use and Consumer: Cook to eat
- Finfish: Fillet, steaks, fiddlers, bullets
- Species: Padidiffish, Catfish, Hybrid Striped Bass, Largemouth Bass, Tilapia
- Product Description: Fish: Fillet, steaks, fiddlers, bullets
- Preparation: Produced under HACCP Plan
- Product needs to be chilled quickly to slow pathogen growth.

- All equipment will be inspected for integrity at every shift and break.
- City potable water will be used.
**HACCP Log for the KSU MPU**

**Product:** Finfish-Vacuum Packed or Bagged, Refrigerated or Frozen- Cook to eat

<table>
<thead>
<tr>
<th>Internal Temperature</th>
<th>Start Time</th>
<th>Sample Temp. 1</th>
<th>Sample Temp. 2</th>
<th>Sample Temp. 3</th>
<th>End Time</th>
<th>Facility Manager</th>
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<td>Batch:</td>
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Signature of Reviewer: ___________________________ Date: ____________
**More Logs...**

CCP 3-P, B All packaging will be inspected and assure seal and integrity

ALL PACKAGES WILL BE INSPECTED.

All Packages labeled: ______________ Facility Manager: ______________

CCP 4-B
Labeling: All Vacuum Packages will have “Safe Handling” instructions and information containing: Product Description, Weight, Date and Facility processed. Non-Vacuum packed product labels will include the above AND instructions to “Keep Frozen until use, thaw in refrigerator only”

ALL PACKAGES WILL BE LABELED.

All Packages labeled: ______________ Facility Manager: ______________

CCP5-B - Cold Storage; Bagged product will be kept in refrigeration at 40˚F or lower. Frozen products and all vacuum packed products will be stored at 0˚F or lower.

<table>
<thead>
<tr>
<th>Temp. Check Date</th>
<th>Storage Unit Description</th>
<th>Inventory</th>
<th>Temperature AM</th>
<th>Temperature PM</th>
<th>F.M Initials</th>
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**1- Evaluate time/temp.: if product is 40˚F or lower check temp. equipment log for other variations. **2- If product is higher than 40˚F and time can not be determined, discard all product affected by deficiency.

Signature of Reviewer: ______________________ Date: __________
Packaging....
Biggest issue !!!!!

- Exemption to the USDA “On site Inspector”
  - The first years, exemption to “on site inspection”.
- Kentucky Department of Health inspector was on site
- State inspectors run all the same tests for large commercial processing facilities.
- Hired a manager for the MPU as half time KSU employee.
Training Manuals

- We have developed three Manuals:
  - Poultry (chickens, turkeys, ducks and chuks)
  - Rabbits
  - Seafood (fish, shrimp and caviar)

HACCP

All Manuals contain the approved HACCP plans for each species and the appropriate logs needed
Training

- ALL producers that want to utilize the MPU MUST go through a one day training every two years.
- Trained individuals become the “Facility Managers” for their product processing.
- The Training Manual is evaluated yearly by the Management team and changes and updates are made as needed.
We can supply safe, high quality products!
Freshwater Prawn
How it worked for Kentucky

- We identified the need
- Had the right key people from the beginning with a vested interest to:
  - Help producers
  - Help small markets
  - Produce and sell only safe products
Results...
Suggestions

- To start: Get the right people
  - Department of Health
  - Department of Agriculture
  - University: Agriculture leader, Poultry leader, Food Science leader
  - Include development agency
  - Third party fiscal entity
  - Producers
Thank you

- Contact:
- Angela Caporelli
- Kentucky Department of Agriculture
- 100 Fair Oaks Ln., 5th
- Frankfort, KY 40601
- 502-564-4983
- angela.caporelli@ky.gov
Vendors with more opportunities!
... and/or more vendors!