



# 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 (3<sup>rd</sup> 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



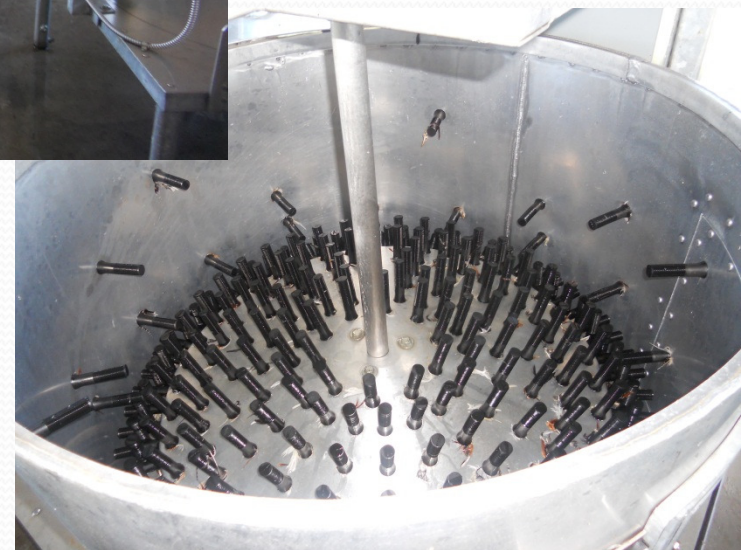


# Docking station

- 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....



HACCP Log  
Product: Freshwater Crabs  
Bagged, Refrigerated or Frozen - Cooked

Date: 9/28/12  
Facility Manager: Dan Alexander Facility #: 18

HACCP Log  
CCPI-C: Chemical/Environmental Affairs Data received: 9/28/12

CCPI-B: Chilling: Three samples of product will reach 40°F within 40 min.

Batch	Internal Temperature	Start Time	Sample Temp			End Time	Facility Manager
			1	2	3		
Batch: 83	10:55	33	33	33	12:30		
Batch: 84	11:30	34	34	38	12:30		
Batch: 81	12:00	33	33	33	1:10		
Batch: 17	12:30	34	34	33	1:10		
Batch: 85	1:05	35	35	34	1:44		
Batch: 84	1:50	33	33	33	1:35		
Batch: 81	2:15	35	35	34	2:50		
Batch: 83	2:50	33	35	37	3:30		
Batch: 85	3:15						

Signature of Reviewer: Steven T. Skelton Date: 9/28/12

22  
36, 24, 18, 23, 36, 27



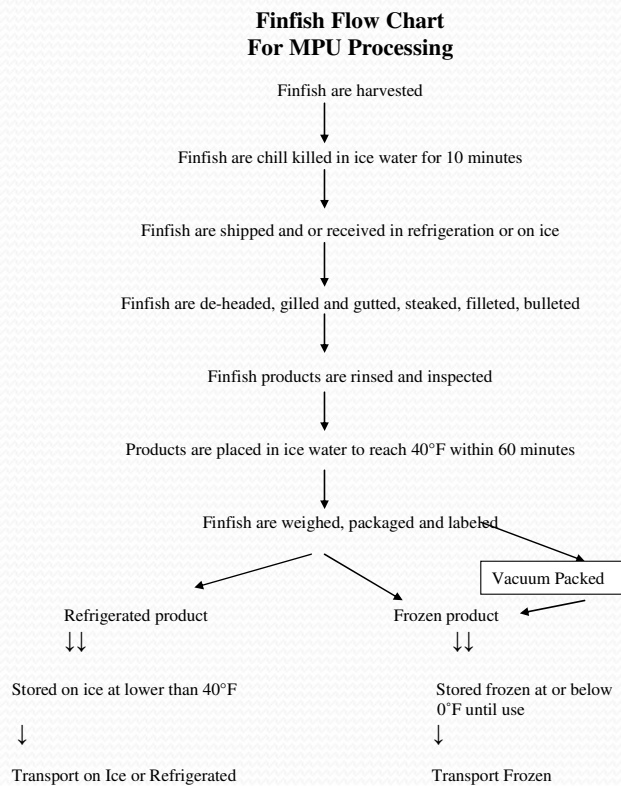
# Processing.....





# Plans and Logs.....

## • Flow chart



## • HACCP Plans

### HAZARD-ANALYSIS WORKSHEET Finfish

Firm Name: KSU MPU Address: Frankfort , KY 40601			Product Description: Fish: Fillet, steaks, fiddlers, bullets Species: <b>PADDLEFISH, CATFISH, HYBRID STRIPED BASS, LARGEMOUTH BASS, TILAPIA</b> Method of Storage and Distribution: Packed Refrigerated or frozen Intended Use and Consumer: <b>Cook to eat</b>		
Prepared by: Angela Caporelli 08/06/12					
(1)	(2)	(3)	(4)	(5)	(6)
Ingredient/processing step	Identify potential hazards introduced, controlled or enhanced at this step (1)	Are any potential food-safety hazards significant ? (Yes/No)	Justify your decisions for column 3.	What preventative measures can be applied to prevent the significant hazards?	Is this step a critical control point? (Yes/No)
Receiving	Biological	Yes	Product needs to be chilled quickly to slow pathogen growth	Fish will be chill killed at harvest and received and on ice.	Yes CCP 1
	Chemical : Contaminants; pesticides, Antibiotics	Yes Yes	These may pose a health hazard	<b>Certificate</b> indicating proper drug usage and withdrawals accompanying all lots of incoming pond-raised products	Yes
	Physical			<b>Certificate</b> accompanying all lots received indicates that the fish were <b>not harvested</b> from waters that were 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.	Yes
Holding	Biological: Pathogen growth	Yes	If fish is left out of ice or refrigeration, pathogenic growth could occur	Fish will be either refrigerated or held on ice and are processed as quickly as possible.	No
	Chemical				
	Physical				
Cutting/gutting	Biological; Pathogen growth	Yes	If fish is left out of ice or refrigeration could risk rise pathogenic growth	Fish will be worked in a reasonable time without risk of temperature above 40°	No
	Chemical			All equipment will be inspected for integrity at every shift and break	No
	Physical: Metal chips	Yes	Knives/blades could be chipped or un-safe		
Rinsing	Biological; Pathogen growth	Yes	Rinsing in holding water could add pathogens from other products.	Products will be held in ice bath and rinsed under cold running water	No
	Chemical; Contaminants	Yes	Water could be contaminated	City potable water will be used	No
	Physical				



# Logs.....

## HACCP Log for the KSU MPU

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

Date: \_\_\_\_\_

Facility Manager: \_\_\_\_\_ Facility # \_\_\_\_\_

### HACCP Log

CCP1-C- Chemical/Environmental affidavit Date received: \_\_\_\_\_

CCP2-B- Chilling: Three samples of product will reach 40°F within 60 min.

Internal Temperature	Start Time	Sample Temp.			End Time	Facility Manager
		1	2	3		
Batch:						
Batch:						
Batch:						
Batch:						
Batch:						
Batch:						
Batch:						
Batch:						

Signature of Reviewer: \_\_\_\_\_ Date: \_\_\_\_\_

# More Logs...

**CCP 3-P, B All packaging will be inspected and assure seal and integrity  
 ALL PACKAGES WILL BE INPECTED.**

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.**

Temp. Check Date	Storage Unit Description	Inventory	Temperature		F.M Initials
			AM	PM	

**\*\*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

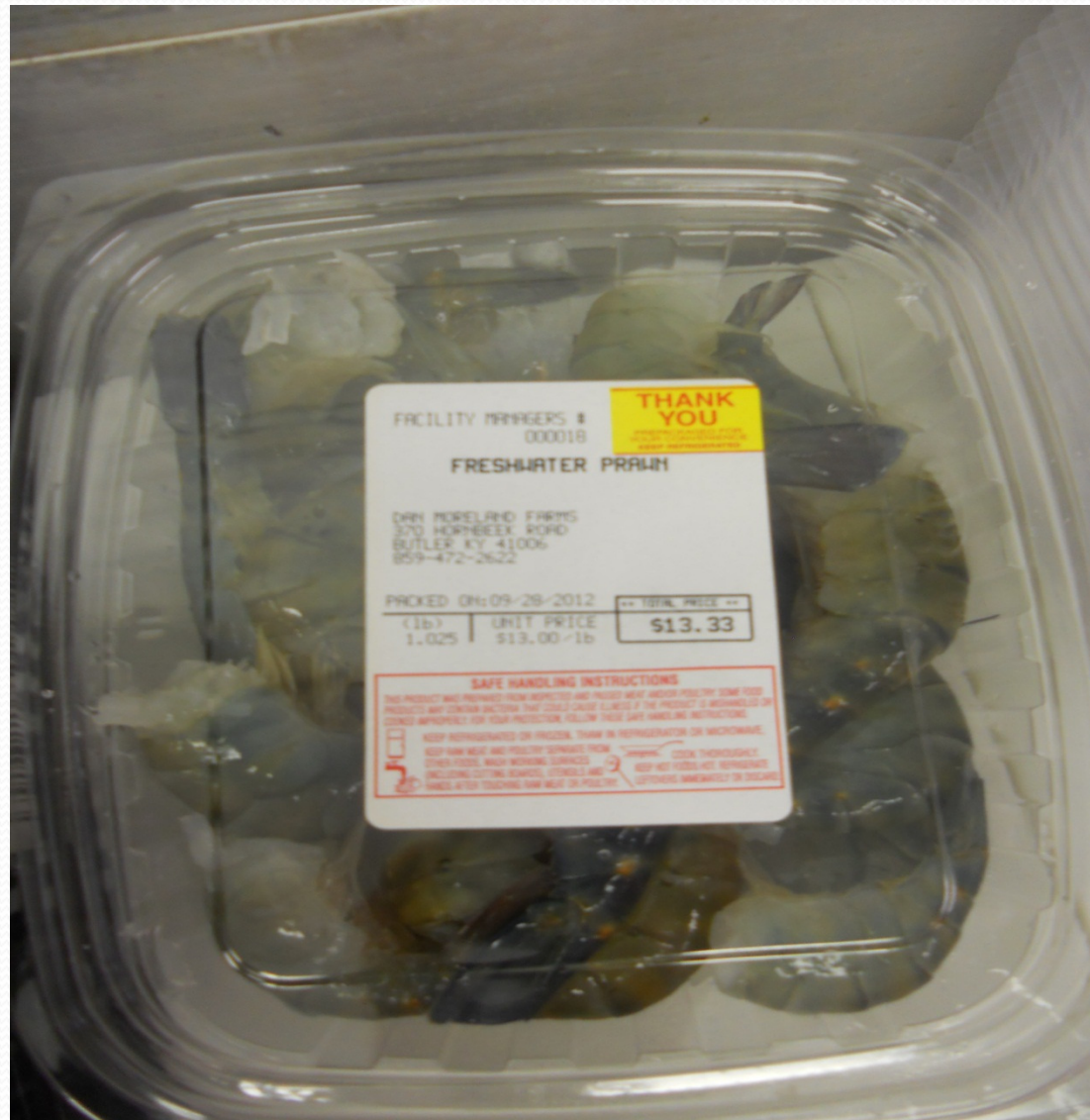
- ALL producers that want to utilize the MPU MUST go through a one day training every two years.
- Trained individuals become the “Facility Managers” for their product processing.
- The Training Manual is evaluated yearly by the Management team and changes and updates are made as needed.



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:
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Vendors with more opportunities!  
.... and/or more vendors!

