

MPU HAZARD-ANALYSIS WORKSHEET

Firm Name: **Kentucky State University Mobile Processing Unit**
 KSU Research Farm
 Frankfort, KY 40601
 502-597-7501

Product Description: **Fish: Fillet, steaks, fiddlers, bullets**
 Species: **PADDLEFISH, CATFISH, HYBRID STRIPED BASS, LARGEMOUTH BASS, TILAPIA, TROUT**
 Method of Storage and Distribution: **Packaged (bagged or vacuum) Refrigerated or frozen**
 Intended Use and Consumer: **Cook to eat**

Prepared by: Angela Caporelli 3/17/15

(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 Chemical : Contaminants; pesticides, Antibiotics Physical	Yes Yes Yes	Product needs to be chilled quickly to slow pathogen growth These may pose a health hazard	Fish will be chill killed at harvest and received and on ice. Certificate indicating proper drug usage and withdrawals accompanying all lots of incoming pond-raised products Certificate accompanying all lots received indicates that the fish were not harvested 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.	No Yes CCP 1-C Yes CCP 1-C
Holding	Biological: Pathogen growth Chemical Physical	Yes	If fish is left in warm environments waiting for processing, the temp /time could compromise safety	Fish will be either refrigerated or held on ice and are processed as quickly as possible.	No
Cutting/gutting	Biological; Pathogen growth Chemical Physical: Metal chips	Yes Yes	If fish is left out of ice or refrigeration could risk rise in temperature Knives/blades could be chipped or un-safe	Fish will be worked in a reasonable time without risk of temperature above 40°F All equipment will be inspected for integrity at every shift and break	No No
Rinsing	Biological; Pathogen growth Chemical; Contaminants Physical	Yes Yes	Rinsing in holding water could add pathogens from other products. Water could be contaminated	Products will be held in ice bath and rinsed under cold running water Potable water will be used	No No

HAZARD-ANALYSIS WORKSHEET (continued)

(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)
Chilling	Biological: Pathogen growth Chemical Physical	Yes	Chilling to 40°F must occur within 60 min. of processing, either through ice bath or directly into a refrigerator or freezer	Temperatures will be taken of three samples at a designated time to ensure 40°F has been reached.	Yes CCP 2-B
Packaging (Bagged or Vacuum)	Biological: Pathogen growth Chemical Physical	Yes	Pathogen growth can occur if the product is not kept chilled at lower than 40°F. Non-vacuum packed product can be packaged, labeled and refrigerated or frozen. Oxygen limited packaging can cause a significant health hazard so product must be frozen	Product will be individually packed in bags. This product be chilled to 40°F or below to inhibit growth of any pathogen growth. Vacuum packed fish must be frozen	Yes CCP 3-B
Labeling	Biological: Pathogen Growth Chemical: Allergens Physical	Yes	Labels must include safe handling and storage information that the product should be kept refrigerated at 40°F or lower. Allergens can cause serious health risks	Labels will state: “Must be kept refrigerated” or “Must be kept frozen and thaw in refrigeration” and all “Safe Handling Instructions”	Yes CCP4-B Yes CCP 4-C
Storage	Biological: Pathogen growth Chemical Physical	Yes	Pathogen growth can occur if product temperature gets above 40°F.	Product will be stored refrigerated at below 40°F or frozen at 0°F or less.	Yes CCP 5-B

HACCP Plan for RAW FRESH FISH; BAGGED, VACUUM PACKED; FRESH OR FROZEN

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Critical Control Point (CCP1)	Significant Hazard	Critical Limits for each Preventive Measure	Monitoring				Corrective Action(s)	Records	Verification
			What	How	Frequency	Who			
Receiving	Aquaculture Drugs	Certificate indicating proper drug usage accompanying all lots of incoming pond-raised products	Presence of a certificate indicating proper drug usage	Visual	Each lot received	Receiving dock employee	Reject lot AND Discontinue use until supplier agrees to provide certificate for each lot.	Grower's drug usage certificate Receiving record	Visit all new suppliers within the year and all existing suppliers at 25% per year on a rotating basis to review the grower's drug usage procedures Review monitoring, corrective action, and verification records within one week of preparation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Critical Control Point (CCP1)	Significant Hazard	Critical Limits for each Preventive Measure	Monitoring				Corrective Action(s)	Records	Verification
			What	How	Frequency	Who			
Receiving	Chemical contaminants and pesticides	Certificate accompanying all lots received indicates that the fish were not harvested 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.	Presence of a certificate	Visual	Each lot received	Receiving dock employee	Reject lot	Copy of certificate Receiving record	Review monitoring, corrective action, and verification records within one week of preparation Visit all new suppliers and 25% of existing suppliers each year and collect soil and/or water samples and review agricultural and industrial practices in the area
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Critical Control Point (CCP2)	Significant Hazard(s)	Critical Limits for each Preventive Measure	Monitoring				Corrective Action(s)	Records	Verification
			What	How	Frequency	Who			
Chilling	Pathogenic growth	Maximum temperature 40°F (based on growth of vegetative pathogens)	Product temperature	Three samples with a piercing thermometer in the thickest part of the product	Each batch	Production employee	Place product in ice bath, add ice Hold and evaluate based on time/temperature of exposure. Excess of 40°F add ice	Production record	Review monitoring and corrective action records within one week of preparation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Critical Control Point (CCP3)	Significant Hazard(s)	Critical Limits for each Preventive Measure	Monitoring				Corrective Action(s)	Records	Verification
			What	How	Frequency	Who			
Packaging	Pathogenic	Product will be individually packed in bags. This product be chilled to 40°F or below to inhibit growth of any pathogen growth. Vacuum packed fish must be frozen	Each package	Visually	Every package	Production employee	Re-seal/ re-package	Production records	Review monitoring and corrective action records within one week of preparation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Critical Control Point (CCP4)	Significant Hazard(s)	Critical Limits for each Preventive Measure	Monitoring				Corrective Action(s)	Records	Verification
			What	How	Frequency	Who			
Labeling	Pathogen Allergens	Safe handling and storage info of 40°F refrigeration or 0°F or lower in freezing Needs to be on label. Any Allergens(ingredients) must be labeled	Label	Placed on every package With listed information and allergens	Each package	Production person	Re-stick label.	Confirm that all labels are attached with all information present including: Product Allergens (ingredients), weight, date, Safe handling info, Processing facility number and contact info.	Review monitoring and corrective action, and verification records within one week of preparation

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Critical Control Point (CCP5)	Significant Hazard(s)	Critical Limits for each Preventive Measure	Monitoring				Corrective Action(s)	Records	Verification
			What	How	Frequency	Who			
Storage	Pathogen	40°F or lower in storage refrigeration or 0°F or lower in freezing	Refrigeration unit	Thermometer	Twice daily: AM and PM	Production person	Lower temp. If temp is exceeded 40°F>6hrs discard	Temp log	Review monitoring and corrective action, and verification records within one week of preparation