



U.S. Farm-Raised Catfish Environmental Sustainability Certification Program

The U.S. catfish industry is committed to producing the highest-quality products in an environmentally responsible manner. However, there is no existing quality management system for environmental sustainability for U.S. catfish farms. In the United States, some components of environmental sustainability as related to catfish farming are regulated, but others are not. Yet customers of catfish farms and processors increasingly are asking for verification that U.S. catfish is raised in an environmentally sustainable manner.

The U.S. Farm-Raised Catfish Environmental Sustainability Certification Program will result in the development of a quality management system for U.S. catfish production that is being specifically requested by customers and that will convey specific information to consumers regarding the environmental sustainability of U.S. catfish. The specific process points to be verified are those components of environmental sustainability that are not regulated. These include:

1. Fishmeal and fish oil conservation
2. Protection of wild fish stocks by using only domesticated, farm-raised fry and fingerlings.

The U.S. Farm-Raised Catfish Environmental Sustainability Certification Program acknowledges that U.S. laws and regulations provide assurance that U.S. catfish farmers conform to the following:

1. Adherence to the USEPA Effluent Limitation Guidelines (USEPA 2004a, b, c, d; 2006);
2. Adherence to EPA spill prevention and control as related to farm supplies and wastes (USEPA 2020a);
3. Adherence to EPA laws and regulations as related to chemical handling (USEPA 2020b).
4. Management of fish-eating birds according to the U.S. Fish and Wildlife Service permitting requirements (USDA-APHIS-Wildlife Service 2020).

5. Critical habitat under the Endangered Species Act (U.S. Fish and Wildlife Service 2020).

The U.S. Farm-Raised Catfish Environmental Sustainability Certification Program standard for catfish production provides clear definitions for responsible environmental stewardship for catfish producers who choose to further reduce environmental impacts, improve management practices, and provide greater accountability to their buyers and the public. The program will require that individual farms develop a quality management system for environmental sustainability.

The Process Verified Points included in the U.S. Farm-Raised Catfish Environmental Sustainability Certification Program are those for which no regulations or quality management system criteria are currently in place for U.S. catfish. These process verified points conform to Items 6.3.b (“production and/or handling practice that provides specific information to consumers to enable them to make informed decisions on the products that they buy”) and 6.3.e (“characteristic, practice, or requirement that is specifically requested by a customer or consumer”) of the QAD 1001 Procedure of the USDA Process Verified Procedure.

U.S. Farm-Raised Catfish Environmental Sustainability Certification Program

Standard for Catfish Production

Overview

Responsible environmental management of farms has become increasingly important to consumers, farmers, and the general public. The U.S. Farm-Raised Catfish Environmental Sustainability Standard for Catfish Production provides clear and auditable definitions of management practices that reduce environmental impacts from catfish production while improving husbandry practices and health of the catfish raised.

Scope

Conformance to the provisions described below (summarized in Table 1) certifies the production and processing of U.S. catfish.

Definition of Terms

Catfish. All fish of the family Ictaluridae, 9 CFR 541.7(d)(2).

Fingerling. A size category including young fish, larger than a fry but not an adult (definition from USDA NASS, 2019).

Broodstock. These are fish or other stock kept for reproduction, including males. Female broodfish produce the fertilized eggs which go to hatcheries (definition from USDA NASS, 2019).

Foodsize. A size category including grown aquaculture products ready for market, also known as market size (definition from USDA NASS, 2019).

Fry. A size category including very young post-larval fish (definition from USDA NASS, 2019).

Ponds. The most common type of water facility for raising fish. Most ponds are man-made and fish usually have access to the entire pond (definition from USDA NASS, 2019).

Processors. Companies that convert live fish to a product ready to cook, such as fish fillets. Usually, the purchasing plant has no ties to the producer. However, in some cases, the plant may be a cooperative that is jointly owned by the producer and other producers. Also included in this category are the sales of aquaculture products by vertically integrated operations through their own processing and marketing operations (definition from USDA NASS, 2019).

Static, closed production system. Static production systems are those for which there is no continuous flow through of water and discharge from the production unit. In static ponds, the water is maintained with only infrequent additions or discharges (USEPA 2004c; pp. 4-18;5-2).

Stockers. A size category including young aquaculture species that are large enough to be placed in the final grow out to foodsize (definition from USDA NASS, 2019).

Catfish Processor Standard: Process Verified Points

Fishmeal and Fish Oil Conservation

Processors will require that farmers provide copies of the signed statement from feed mill(s) specifying the percent of wild fishmeal and fish oil used in the feeds for the past year prior to purchase of fish.

Use of Fry or Fingerlings from the Wild

Processors will require that farmers provide copies of signed statements from vendors who supply fry and fingerlings to growout farms that the fish sold were raised on farms and not captured from the wild.

Catfish Farm Standard: Process Verified Points

Fishmeal and Fish Oil Conservation

Background: Excessive use of fishmeal and fish oil in fish feeds can contribute to over-fishing, often of marine forage fish that contribute to marine food chains.

Standard: The feed fed contains less than 5% wild fish meal and fish oil.

For compliance: The farm will obtain annually a signed statement from the feed mill(s) that specifies the percent of wild fish meal and fish oil used in the feeds for the past year.

Relevant information: Global overview on the use of fish meal and fish oil in industrially compounded aquafeeds: Trends and future prospects (Tacon and Metian. 2008); Composition and formulation of channel catfish feeds (Robinson and Li 2012).

Use of Fry or Fingerlings from the Wild

Background: Use of wild fry, or fingerlings that can result in depletion of natural populations of wild fish.

Standard: All fish used for growout on the farm were obtained from domestic stocks raised on farms and hatcheries. All fry and fingerlings grown have been raised on farm or on a hatchery that supplies the farm with fingerlings for stocking.

For compliance: A letter will be provided by the vendor certifying the origin of fry or fingerlings from the vendor. The certification letter will be updated each year as part of the quality management system.

Relevant information: Sadovy de Mitcheson, Y and M. Liu. 2008. Environmental and biodiversity impacts of capture-based aquaculture. In A. Lovatelli and P.F. Holthus (eds). Capture-based aquaculture. Global overview. *FAO Fisheries Technical Paper*. No. 508. Rome, FAO. pp. 5–39.

Requirements for Participation in the U.S. Farm-Raised Catfish Environmental Sustainability Certification Program

Quality Management System

Participation in the program requires the development and maintenance of a Quality Management System. The company applying for participation in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program must develop a Manual that describes and establishes the details of the Quality Management System. The Manual developed will be based on the QAD 1001 Procedure of the USDA Process Verified Program.

The Quality Management System Manual will specify the supply chain partners involved in the program and will include the agreements signed for participation in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Management System.

Agreements Among Supply Chain Partners

Application for participation in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program will include agreements established between the applicant and their supply chain partners. Agreements to be signed will include:

1. Modification of purchasing agreements with farms to include:
 - a. Commitment to comply with the Standards of the U.S. Farm-Raised Catfish Environmental Sustainability Certification Program.
 - b. Agreement to be audited by USDA-AMS.
2. Signed agreement (Attachment A to this Standard) with all hatcheries that supply fish to participating farmers that specifies:
 - a. Commitment to comply with the Standards of the U.S. Farm-Raised Catfish Environmental Sustainability Certification Program.
 - b. Agreement to be audited by USDA-AMS.
3. Signed agreement (Attachment B to this Standard) with all feed mills that supply feed to participating farmers that specifies:
 - a. Commitment to comply with the Standards of the U.S. Farm-Raised Catfish Environmental Sustainability Certification Program.
 - b. Agreement to be audited by USDA-AMS.

Table 1. U.S. Farm-Raised Catfish Environmental Sustainability Standard – Summary

| Process Verified Points | Standard | Compliance record-keeping |
|--|--|---|
| <i>Catfish Processor</i> | | |
| 1. Fishmeal and fish oil conservation | The feed fed contains less than 5% wild fish meal and fish oil. | Processors maintains copies provided by farmers of the signed statement from feed mill(s) specifying the percent of wild fishmeal and fish oil used in the feeds for the past year prior to purchase of fish. |
| 2. Use of fry or fingerlings from the wild | All fish used for growout on the farm are from captive, domestic stocks raised on farms and hatcheries. | Processor maintains copies provided by farmers of the signed statements from fry and fingerling suppliers of the origin of the fish sold. |
| <i>Catfish Farm</i> | | |
| 1. Fishmeal and fish oil conservation | The feed fed contains less than 5% wild fish meal and fish oil. | The farm will obtain annually a signed statement from the feed mill(s) that specifies the percent of wild fish meal and fish oil used in the feeds for the past year. |
| 2. Use of fry or fingerlings from the wild | All fish used for growout on the farm are from domestic stocks raised on farms and hatcheries. All fry and fingerlings grown have been raised on farm or on a hatchery that supplies the farm with fingerlings for stocking. | A letter will be provided by the vendor certifying the origin of fry or fingerlings from the vendor. The certification letter will be updated each year as part of the quality management system. |

References

- Engle, C.R. 2007. Species-specific public policy for sustainable development: the U.S. catfish industry. Pages 313-332 *in*: Leung, P-S., C-S Lee, and P.J. O’Bryen. 2007. *Species & System Selection for Sustainable Aquaculture*. United States Aquaculture Society, Blackwell Publishing, Ames, Iowa.
- Robinson, E. and M. Li. 2012. Composition and formulation of channel catfish feeds. Bulletin 1200. Mississippi Agricultural & Forestry Experiment Station, Mississippi State University, Mississippi.
- Sadovy de Mitcheson, Y and M. Liu. 2008. Environmental and biodiversity impacts of capture-based aquaculture. In A. Lovatelli and P.F. Holthus (eds). *Capture-based aquaculture. Global overview. FAO Fisheries Technical Paper*. No. 508. Rome, FAO. pp. 5–39.
- Tacon, A.G.J. and M. Metian. 2008. Global overview on the use of fish meal and fish oil in industrially compounded aquafeeds: Trends and future prospects. *Aquaculture* 285 (2008) 146–158.
- USDA-APHIS-Wildlife Services. 2020. Migratory Bird Depredation Permit Process. Available at: www.aphis.usda.gov/aphis/ourfocus/wildlifedamage/operational-activities/ct_federal_permit_process
- USEPA. 2004a. Website for the Aquatic Animal Production Industry Effluent Guidelines. <http://epa.gov/guide/aquaculture>.
- USEPA. 2004b. Effluent Limitation Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category: Final Rule. Federal Register 69(162) Part II. United States Environmental Protection Agency, Washington, D.C. Available at: <https://www.federalregister.gov/documents/2004/08/23/04-15530/effluent-limitations-guidelines-and-new-source-performance-standards-for-the-concentrated-aquatic>.
- USEPA. 2004c. Technical Development Document for the Final Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category (Revised August 2004). EPA 821-R-04-012, U.S. Environmental Protection Agency, Office of Water, Washington, DC. Available at: <http://epa.gov/guide/aquaculture/>.
- USEPA. 2004d. Economic and Environmental Benefit Analysis of the Final Effluent Limitations Guidelines and Standards for the Concentrated Aquatic Animal Production Point Source Category. EPA 821-R-04-013, U.S. Environmental Protection Agency, Office of Water, Washington, DC. Available at: <http://epa.gov/guide/aquaculture/>.
- USEPA. 2006. Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category. EPA-821-B-05-001. Office of Water, United States Environmental Protection

Agency, Washington, DC 20460. Available at https://www.epa.gov/sites/production/files/2015-11/documents/caap-aquaculture_compliance-guide_2006.pdf.

USEPA. 2020a. Spill Prevention, Control, and Countermeasure (SPCC) for Agriculture. Available at: www.epa.gov/oil-spills-prevention-and-preparedness-regulations/spill-prevention-control-and-countermeasure-spcc.

USEPA. 2020b. Laws and Regulations that Apply to Your Agricultural Operation by Farm Activity – Chemical Handling. Available at: www.epa.gov/agriculture/laws-and-regulations-apply-your-agricultural-operation-farm-activity#ChemicalHandling.

U.S. Fish and Wildlife Service. 2020. Critical Habitat under the Endangered Species Act. Available at: <https://www.fws.gov/southeast/endangered-species-act/critical-habitat/>.

Agreement A

Agreement with Hatcheries for Participation in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program

THIS AGREEMENT (the “Agreement”) made and entered into this _____ day of _____, _____ (“the Execution Date”).

BETWEEN: _____ (“Hatchery”) and

BACKGROUND:

- A.** The partners wish to associate themselves for purposes of participating in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program.
- B.** This agreement sets out the terms and conditions of participation in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program

TERMS AND CONDITIONS:

- A.** Hatchery agrees to take necessary steps to conform to the standards of the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program, including:
 - 1. Provide a signed statement annually to each farm participating in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program specifying that the fingerlings/fry sold farms participating in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program were farm-raised and not caught from the wild.
- B.** Hatchery agrees to be audited by the USDA-AMS for purposes of the U.S. Farm-Raised Catfish Environmental Sustainability Certification Program.

IN WITNESS WHEREOF, the parties have duly affixed their signatures under hand and seal this _____ day of _____.

| | |
|---------------------|-------|
| | |
| Title | Title |
| Date | Date |
| Printed name: _____ | _____ |

Agreement B
Agreement with Hatcheries for Participation in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program

THIS AGREEMENT (the “Agreement”) made and entered into this _____ day of _____, _____ (“the Execution Date”).

BETWEEN: _____ (“Feed Mill”) and

BACKGROUND:

- A.** The signatories wish to associate themselves for purposes of participating in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program.
- B.** This agreement sets out the terms and conditions of participation in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program

TERMS AND CONDITIONS:

- A.** Feed Mill agrees to take necessary steps to conform to the standards of the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program, including:
 - 1. Provide a signed statement annually to each farm participating in the USDA-AMS-PVP U.S. Farm-Raised Catfish Environmental Sustainability Certification Program specifying the percent of wild fishmeal and fish oil used in the feeds for the past year prior to purchase of fish.
- B.** Feed mill agrees to be audited by the USDA-AMS for purposes of the U.S. Farm-Raised Catfish Environmental Sustainability Certification Program.

IN WITNESS WHEREOF, the parties have duly affixed their signatures under hand and seal this _____ day of _____.

| | | | |
|---------------------|------|-------|------|
| | | | |
| Title | Date | Title | Date |
| Printed name: _____ | | _____ | |