

US Farm-Raised Catfish Environmental Sustainability Certification Program Standard



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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. The 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

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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	Date	Title	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: _____		_____	

Appendix to Standard: List of Required Documents

List of Required Documents – Growout Farms

Aquatic Animal Health

- Aquatic Animal Health Management Plan with dates of review and revision, and includes biosecurity measures (including a list of likely diseases), record of response protocols to disease outbreaks and containment measures (including those of any invasive diseases), a procedure for handling mortalities that safeguards against the human health risk from puncture wounds and bacterial infections from handling dead catfish, twice a year visual inspection of overflow drain pipes from pond facilities to minimize the risk of escapes, and appropriate personnel training
- Record of visits with fish health professional (to farm and farmer to fish health laboratory), notifications of disease outbreaks maintained either by farm or the relevant diagnostic laboratory
- Disease testing reports, diagnosis, prescriptions, treatment regime prescribed
- Record of application of medicated feed or other therapeutant
- Receipts of medicated feed purchased
- Auditor will do visual inspection of office, chemical storage area to ensure no prohibited antimicrobials in use
- Records of water quality monitoring (i.e., dissolved oxygen, chloride levels to prevent brown blood disease, alkalinity, etc.). Records can include inspection of automated dissolved oxygen monitoring systems and receipts of relevant maintenance services, records from on-farm testing, and/or water quality testing reports from diagnostic laboratories
- Record, or farm log of attendance by farmers and staff at Extension and other workshops, seminars, meetings, including the annual training conducted by the processor that manages the Quality Management System
- Record of mortalities, reason for mortalities, and handling of mortalities in accord with the procedure specified in the Aquatic Animal Health Management Plan

Chemical Use

- Record of use, rationale, and application methods of all chemicals, including disinfectants, herbicides, anaesthetics
- Record of inspection of storage of chemicals, fuel, and feed to verify safety
- Record of inspection of waste management system and disposal methods used for non-biological waste disposal
- Receipts from waste management services, including recovery of waste oil or other materials or equipment for recycling or removal from premises

Energy use

- Annual documentation of energy use through records of electric and fuel bills for comparison across years

Production records

- Yield (lb of fish sold/acre in growout production)
- FCR (lb of feed purchased/lb of fish sold)
- Record of seed purchases, including date, vaccination status, health status
- Receipt from source (s) of fry and fingerlings
- Broodstock management plan, where applicable

Predator control records

- Report to USFWS (that includes species) on take of avian predators

Examples of business records that can be used to demonstrate compliance with laws

- Business registration/license with appropriate authorities
- Deed to property or rental agreement
- Tax forms, federal, state, local
- Hatchery records show proof of conformance with stocking regulations, that fish stocked have not been harvested from the wild
- USFWS permit for avian predator control
- Well permits or well registration, as required by state law
- Prescriptions for medicated feed from veterinarians
- Pesticide Applicator License
- MSDS (Material Safety Data Sheets) data sheets on each chemical stored on farm
- Records of insurance

Annual letter from hatchery specifies:

- That all fry and fingerlings purchased were raised on the hatchery farm and not harvested from the wild
- Whether fry or fingerlings purchased have been vaccinated

Annual letter from feed mill specifies:

- Percent of fishmeal and percent of fishoil used in catfish growout feed for the year
- That fishmeal and fishoil is not from endangered species
- That fishmeal and fishoil is not from illegal, unreported, and unregulated fishing (I.U.U.)
- That feed mill has a written policy of its commitment to source feed ingredients from responsibly managed sources and to seek continued improvement

List of Required Documents – Hatcheries

Aquatic Animal Health

- Aquatic Animal Health Management Plan with dates of review and revision, and includes biosecurity measures (including a list of likely diseases), record of response protocols to disease outbreaks and containment measures (including those of any invasive diseases), and a procedure for handling mortalities that safeguards against the human health risk from puncture wounds and bacterial infections from handling dead catfish, twice a year visual inspection of overflow drain pipes from pond facilities to minimize the risk of escapes, and appropriate personnel training.
- Record of visits with fish health professional (to farm and farmer to fish health laboratory), and notifications of disease outbreaks. Records include a log maintained either by farm or the relevant fish health laboratory.
- Disease testing reports, diagnosis, prescriptions, treatment regime prescribed.
- Record of application of medicated feed.
- Receipts of medicated feed purchased.
- Auditor will do visual inspection of office, chemical storage area to ensure no prohibited antimicrobials in use.
- Records of water quality monitoring (i.e., dissolved oxygen, chloride levels to prevent brown blood disease, alkalinity, etc.). Records can include inspection of automated dissolved oxygen monitoring systems and receipts of relevant maintenance services, records from on-farm testing, and/or water quality testing reports from diagnostic laboratories.
- Record, or farm log of attendance by farmers and staff at Extension and other workshops, seminars, meetings, including the annual training conducted by the processor that manages the Quality Management System.
- Record of mortalities and reason for mortalities, and handling of mortalities in accord with the procedure specified in the Aquatic Animal Health Management Plan.

Chemical Use

- Record of use and application methods of all chemicals, including disinfectants, herbicides, anaesthetics.
- Record of inspection of storage of chemicals, fuel, and feed to verify safety
- Receipts from waste management services, including recovery of waste oil or other materials or equipment for recycling or removal from premises.

Energy use

- Annual documentation of energy use through records of electric and fuel bills for comparison across years.

Production records

- Yield from fingerling ponds
- FCR
- Record of any purchases of fry or fingerlings, including date, vaccination status, health status

- Record of harvest during which screen on drain is checked as harvest net is moved around drainpipe to prevent escapes.
- Broodstock management plan

Predator control records

- Report to USFWS (that includes species) on take of avian predators

Business records that can be used to demonstrate compliance with laws

Business registration/license with appropriate authorities

- Deed to property or rental agreement
- Tax forms, federal, state, local
- Hatchery records show proof of conformance with stocking regulations, that fish stocked have not been harvested from the wild.
- USFWS permit for avian predator control
- Well permits or well registration, as required by state law
- Prescriptions for medicated feed from veterinarians
- Pesticide Applicator License
- MSDS (Material Safety Data Sheets) on each chemical stored on farm
- Records of insurance

Hatchery-specific Records

- Record of invoices from vaccine provider
- Records of application of vaccine
- Invoices of fry and fingerling sales to farms

List of Required Documents – Feed mills

- Receipts from purchases of fishmeal & fishoil, specifying species and fishery
- Written policy statement that specifies that ingredients are sourced from responsibly managed sources.
- Documentation that terrestrial feed ingredients sourced do not have significant environmental impacts.
- Copy of prescriptions for therapeutants from veterinarian for medicated feed