



United States
Department of
Agriculture



National
Agricultural
Statistics
Service

Agricultural
Statistics
Board

Washington, DC 20250

November 2019

Catfish Production Survey

Interviewer's Manual

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Chapter 1: General

General

Catfish operations raise fish in a controlled aquatic environment. These catfish operations use some form of intervention in the rearing process to enhance production, such as regular stocking, feeding, and protection from predators, pests, and disease. NASS samples all operations that sell raised, reared, or hatched catfish in the program states. Distributed and wild caught catfish are excluded from this survey. Catfish operations may raise other types of aquaculture products; however, these should be excluded from the production numbers collected for the Catfish survey. Catfish operations and/or catfish inventory can be operated by an individual, corporation, or a government entity. Farms surveyed are expected to produce (or have the potential to produce) sales of \$1,000 or more of aquaculture/agriculture products.

State estimates of pounds of catfish produced, value and type of sales, inventory by size of fish and water area devoted to production are made for the major States. The number of operations selling catfish is only published at the US level. Catfish production is estimated in January and July only.

The January Catfish Survey is conducted in the following States:

Alabama	Georgia	Missouri
Arkansas	Louisiana	North Carolina
California	Mississippi	Texas

The July Catfish Survey is conducted in the following States:

Alabama	Arkansas	Mississippi
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Chapter 1

General

Purpose

The purpose of the catfish survey is to provide reliable data for the industry to use in making informed production and marketing decisions. Inventory and size data provide indications of future marketing. Water area figures indicate the area being used and the future potential. Aquaculture may be included in government legislation, so government and industry leaders need independent and unbiased information to accurately assess the industry's needs. Consumers, the media, and academics are also interested in aquaculture data. Leaders of the catfish industry have requested the surveys and have assisted in structuring its scope.

Survey Plans

The phases of the catfish survey include list maintenance, list screening, data collection, summarization, and publication. The list was built from names and addresses supplied by industry, other agricultural agencies, and producers. The list is classified by type and value of sales. Data collection will usually be done in the following phases: (1) mail questionnaires to all known catfish farms; (2) interview by phone all mail non-respondents; and (3) personally enumerate those requesting personal enumeration and all telephone non-respondents. This technique is most desirable to keep costs to a minimum, yet giving all operators every opportunity to report.

Your Job

Your job as an enumerator is to contact the selected producers and solicit their cooperation to supply data for the survey. You should be familiar with the purpose of the survey so you can answer the respondents' questions. Inform producers that response to this survey is voluntary and not required by law. Information will be kept confidential and combined with other producer data to provide a summary. You may be asked questions like: Why is this being done? Of what use is it to me? The Purpose section will help you answer these types of questions.

Basic Guidelines for Questionnaire Completion

- Use a black pencil for entries.
- Record live weight to the nearest whole pound.
- Record total dollar entries to the nearest dollar
- Record average pounds to the nearest tenth.
- Record acreage entries to the nearest whole acre.
- Record percentage entries to the nearest whole percent.
- Follow skip logic instruction to avoid asking needless questions.
- Write notes to describe unusual situations. Also, for list building purposes, note any other species of fish that the respondent may raise.

The questionnaires were designed to meet the needs of the majority of producers. However, producers use a wide variety of management and production systems and some of these may not be compatible with the questionnaire design. Every effort to obtain the needed data must be made to insure accurate statistics. Make note of special situations.

Chapter 2: Terms and Definitions

General Terms

Broodfish - Fish kept for egg production, including males. Broodfish produce the fertilized eggs which go to hatcheries. Typically broodfish are above three pounds.

Fry - Fish under 2 inches in length weighting less than 2 pounds per 1,000 fish.

Fingerlings- Fish 2-6 inches in length weighting 2 pounds to 60 pounds per 1,000 fish.

Foodsize - Fish weighing over 3/4 pound, excluding broodfish.

Stockers: - Fish over 6 inches in length weighing 60 pounds to 750 pounds per 1,000 fish. These fish are placed in ponds to be grown into foodsize fish.

Point of First Sale Outlet - The first point at which money changes hands. Delivery to the processing plant is considered to be a point of first sale.

Value of Sales - Gross value of live weight sales a producer receives before marketing and production costs are deducted.

Chapter 3: Survey Procedures

Questionnaire

Data will be collected by telephone and personal interview. One questionnaire version will be used. The survey reference date for all surveys is the 1st of the month for inventory and water acre questions. Sales and loss questions refer to the 12-month period from January 1 to December 31 of the previous year.

The questionnaire is divided into the following sections:

- Identification
- Water Area
- Inventory
- Sales (January only)
- Change in Operation
- Conclusion

Respondent Burden

You will reduce the burden on the respondent if you are familiar with the questionnaire and instructions. Pay attention to skip instructions in the questionnaire to avoid asking questions needlessly. When skip instructions are not printed after an item, continue with the next item.

Also, be aware of the average completion time estimate in the Burden Statement. The estimated average completion time is based on experience with previous Aquaculture Surveys and the judgment of NASS and the Office of Management and Budget (OMB). OMB is the agency that approves all surveys conducted by the federal government (each questionnaire has an OMB control number in the upper right corner). The expected average interview length for the Catfish Production Survey is 15 minutes. Burden statements are printed on the front of the questionnaire.

Entering Data

Use a black pencil to record data and make notes. Never use ink on a questionnaire. Make all entries clear and easy to read. Entries in check boxes and item code boxes must be inside the boxes. Record responses on the questionnaire in the unit provided (acres, pounds, dollars). If a respondent gives an answer in a different unit, write the answer outside the printed box, convert it to the required unit, and record the converted data in the box. In most of cases when a conversion is needed you should wait until the interview is over to make the required updates (you can also make notes for your Supervisor or the FO statistician to do the conversion, if you are not confident in doing it yourself).

Chapter 3

Survey Procedures

Each question should be answered. Probe for the respondent's best estimate if the actual data are unknown. If "zero" or "none" are reported for any question, please indicate with a dash.

The catfish operation may also produce other fish species. The respondent should report data for the catfish operation only. If the respondent is unable to separate the species, obtain an estimate of what percent of the total fish on the operation are catfish. Note this percentage by the questions which contain answers for the mixed operation. The State office will convert the mixed fish data.

If the respondent has trouble reporting live weight of sales, refer to the Length-Weight Tables on pages 2 and 3 of Appendix 1. For example, let us say that the respondent reports 100,000 four-inch fingerlings sold. When we look at the Length-Weight Table, the corresponding weight per fish is .0184 pounds. Multiplying 100,000 by .0184 results in 1,840 pounds. Enter 100,000 in cell 622 and 1,840 in cell 621 in the questionnaire.

A number of producers prefer to think in terms of averages per fish or per 1,000 fish. They may not know exactly how many fish they have because of losses during the year. A rule of thumb used by many producers during the active feeding part of the year (May-October) is that foodsize catfish eat 2 percent of their body weight in feed per day. The fish are normally fed what they will completely consume in 15 minutes. Most producers have some type of weighing equipment associated with the feeding process and know accurately how many pounds are being fed. If the respondent knows the average weight of fish in the pond, an accurate estimate of the number of fish should be as follows:

Amount of Feed	1,000 pounds
Average Weight per Fish	3/4 pounds
2% of Body Weight (3/4 lbs x 2%)	0.0150 pounds
Feed lbs ÷ (2% of the fish weight) => 1000 lbs / .0150 lbs = Fish	66,667 fish

NOTE: Fish smaller than 3/4 pound are generally fed closer to 3 percent of their weight.

From late October through late April (when water temperatures fall below 65°) the fish are placed on a maintenance ration. This consists of approximately 1 percent of their body weight per day and is used to prevent weight loss.

Chapter 4: Screening

Front Page

Introduction

Before beginning data collection, develop an introduction you are comfortable using. In the introduction include: who you are, whom you represent, and the purpose of the visit. You should be familiar with the information in Chapter One of this manual.

When making your introduction, remind the respondent that data they report will be kept strictly confidential. All information they provide will only be used to make State, and national estimates.

Be prepared to answer questions the respondent may have about the purpose of the survey and uses of the data.

Name and Address Verification

Please verify the name and address that appears on the label. Make all necessary corrections to the name and address in the space provided around the label.

Back Page

Response Code

Upon completion of the interview, enter the response code in cell 9901 on the Back Page of the questionnaire. Response codes are:

Code 1 - **Complete**: The questionnaire is complete.

Code 2 - **Refusal**: The respondent refused to cooperate or grant an interview.

Code 3 - **Inaccessible / Incomplete**: The operator was not available throughout the survey period (inaccessible). You will also use code 3 if the respondent gave an interview but could not or would not answer a lot of the questions (incomplete questionnaire). If you determine that the target operation does not produce the selected commodity, code the questionnaire complete (code 1) and indicate the source of your information with a note.

Code 5 – **Refusal (Estimated)**: The respondent refused to cooperate or grant an interview, but the operation is a Strata 44, which requires estimation

Code 6 – **Inaccessible (Estimated)**: The operator was not available throughout the survey period (inaccessible), but they are a Strata 44, which requires

Chapter 4 Screening

estimation. You will also use code 3 if the respondent gave an interview but could not or would not answer a lot of the questions (incomplete questionnaire). If you determine that the target operation does not produce the selected commodity, code the questionnaire complete (code 1) and indicate the source of your information with a note.

Respondent Code

Upon completion of the interview, enter the respondent code in cell 9902 on the Back Page of the questionnaire. Respondent codes are:

- Code 1 – **Operator/ Manager**
- Code 2 – **Spouse**
- Code 3 – **Accountant/ Bookkeeper**
- Code 4 – **Partner**
- Code 9 – **Other**

Mode Code

Upon completion of the interview, enter the mode code in cell 9903 on the Back Page of the questionnaire. Mode codes are:

- Code 2 – **Telephone**
- Code 3 – **Face-to-Face**

Enumerator Code

Enter your enumerator ID number in the Enum. Code cell 098 and print your name in the S/E Name box.

Chapter 5: Completing the Questionnaire

Overview

This section provides an overview of how Chapter 5 is organized. Chapter 5 contains question-by-question instructions for every item in every section of the Catfish Growers Survey questionnaire. As you read the manual, refer to a copy of your State's questionnaire.

Section	Section Title
1	Identification
2	Water Area
3	Inventory
4	Sales
5	Change in Operation
6	Conclusion

Section 1: Identification

Please check the appropriate response for each box then carry over the appropriate response code (1, 2, or 3) to the item code boxes on the right. If the respondent answers "NO" to all questions then go to the Change in Operation Section, otherwise continue with the interview.

SECTION 1: IDENTIFICATION

1. On land operated by the farm, ranch or individual(s) listed on the label:
 - a. Will there be any water area used on this operation to produce catfish at any time during 2018?
2373 **1** YES – [Go to Section 2] **3** NO – [Continue]
 - b. Will there be any hatchery or foodsize production inventory on this operation at any time during 2018?
2374 **1** YES – [Go to Section 2] **3** NO [Continue]
 - c. Were any catfish sold from this operation during 2017?
372 **1** YES – [Go to Section 2] **3** NO – [Continue]
 - d. Will any catfish be produced on this operation in the future?
2378 **1** YES – [Go to Section 5] **2** DON'T KNOW – [Go to Section 5] **3** NO – [Go to Section 5]

Chapter 5

Completing the Questionnaire

Section 2: Water Area

SECTION 2: WATER AREA		Acres
1. What is the total WATER AREA used and to be used by this operation to produce CATFISH during the period of January 1 – June 30, 2018? (Exclude areas of new facilities under construction.)		259
a. How many of the total acres are currently being or will be RENOVATED during the period of January 1 – June 30, 2018?		260
b. How many of the total acres are USED FOR BROODFISH production?		261
c. How many of the total acres are USED FOR FOODSIZE production?		266
d. How many of the total acres are USED EXCLUSIVELY FOR FINGERLINGS ?		262
2. What is the water area of NEW FACILITIES under construction or to be constructed for use during the period of January 1 – June 30, 2018?		263
3. What is the water area of FACILITIES TAKEN OUT OF PRODUCTION during the period of July 1 – December 31, 2017 that were previously used to produce catfish? (Exclude acres reported in Item 1.)		264
		270

Office Use

1 = Inc. Has Water Area
 2 = Acres Unknown
 3 = Valid Zero

Total Water Area - All surface areas of water used for the production of catfish. Estimates will be based on acreage that will be used for fish production during the next 6 months, regardless of the type of facility. All reports with a positive catfish inventory must have water acreage.

Acres Being Renovated or Acres to Be Renovated - Surface area of water that is being or will be renovated during the next 6 months. If the acreage will be out of production for the entire 6 month period, the acreage should only be included in water area taken out of production.

Acres for Broodfish Production - Acres of water in which broodfish are currently being kept. Production fish may also be kept in these acres. If both types are kept in the same pond, acreage should be prorated for each type.

Acres for Foodsize Production - Acres of water in which foodsize fish are currently being raised. Broodfish may also be kept in these acres. If both types are in the same pond, acreage should be prorated for each type.

Acres Used Exclusively for Fingerlings - This is the water area that is used exclusively for raising fingerlings. No other size of fish, even fry, should be in the ponds for the acreage to be included in this category.

Water Area of New Facilities - Acres of water in new facilities that will come into production during the next 6 months. Acreage that will not be in production during the next 6 months should be excluded.

Acres Out of Production - Acres that were taken out of production during the last 6 months and are not expected to be brought back into production during the next 6 months. Acreage that will be brought back into production during the next 6 months should be reported in the total water area used and to be used to produce catfish for commercial purposes.

Section 3: Inventory

Two of the three entries (total pounds, total number, or average pounds) must be present for each inventory category present on the operation. An average live weight in pounds per fish is asked for the four heavier categories, while weight per 1,000 fish is asked for the smaller categories. Fry are only asked during the July survey.

SECTION 3: INVENTORY

1. On January 1, 20XX, what was your estimated inventory of catfish by the following size categories?

SIZE CATEGORY	Total		Average Pounds	
	Number	OR Pounds	Per Fish	Per 1000 Fish
a. Broodfish (fish being used or to be used for breeding).....	721	720	722	
b. Large foodsize (over 3 lbs).....	724	723	725	
c. Medium foodsize (over 1½ lbs to 3 lbs).....	727	726	728	
d. Small foodsize (over ¾ lbs to 1½ lbs).....	730	729	731	
e. Large stockers (over 180 lbs to 750 lbs per 1000 fish).....	733	732		735
f. Small stockers (over 60 lbs to 180 lbs per 1000 fish).....	737	736		739
g. Fingerlings (2 to 6 inches) or (2 to 60 lbs per 1000 fish)....	741	740		742

Office Use
1 = Inc. Has Catfish
2 = Inventory Unknown
3 = Valid Zero
760

Chapter 5 Completing the Questionnaire

Section 4: Sales (January Only)

Total sales for the entire year are reported in Item 1. An entry is needed in all three items for a line of data to be useable. If the number is not available, probe to get a measure of size so that the total number may be derived.

This section has two questions: Question 1 asks for number of fish sold, pounds sold and total value of production for all of the production categories. Question 2 asks the breakout by point of first sale outlet.

If an operation is raising catfish under a production contract please try and get a true market value for the catfish raised, and not one that includes a contract fee.

SECTION 4: SALES

1. During 20XX, what were your total catfish sales for the following size categories?

FISH SOLD AS:	Total Number Sold	Total Pounds Live Weight	Total Sales ** (Dollars)
a. <u>Broodfish</u> (fish being used or to be used for breeding)	610	609	611
b. <u>Broodfish</u> (previously used for breeding)	613	612	614
c. <u>All foodsize</u> (over 3/4 lbs. per fish)	616	615	617
d. <u>Stocker</u> s (over 6 inches) or (over 60 lbs. to 750 lbs. per 1000 fish)	619	618	620
e. <u>Fingerlings</u> (2 to 6 inches) or (2 lbs. to 60 lbs. per 1000 fish)	622	621	623
f. <u>Fry</u> (under 2 inches) or (less than 2 lbs. per 1000 fish)	625	624	626

** Live weight price – exclude cleaning charges.

Sales outlet data help determine market developments. Record entries to the nearest whole percent. The pieces for each category must add to 100 percent. The foodsize group includes broodfish sold for food.

Reported percents should be for the point of first sale or, in other words, the first point at which money changes hands. Most foodsize fish are sold to processing plants, while most stocker sales are to other producers. If a State or Federal hatchery buys fish for releasing into public water, the value should be recorded as sales to government Agencies.

Chapter 5 Completing the Questionnaire

2. During 20XX, what percent of the value of sales for Foodsize, including broodfish, and Stockers reported in Item 1 was sold to each of the following **SALES OUTLETS**.

POINT OF FIRST SALE OUTLET	Percent of Total Value of Sales for Fish Sold as:	
	FOODSIZE (over ¼ lbs.) (Include broodfish)	STOCKERS (usually 6 inches in length to ¼ lbs.)
a. Live haulers/brokers	630 %	631 %
b. Recreational stocking - (private lakes and ponds)	632 %	633 %
c. Wholesale to other producers (to stock commercial and fee fishing operations)	634 %	635 %
d. Government agencies	636 %	637 %
e. Direct to consumers - (farmers market, on farm fee fishing)	638 %	
f. Processors (also include fish processed on the operation.)	640 %	
g. Retail outlets - (restaurants, grocery stores, etc.)	642 %	
h. Export	646 %	647 %
i. Other, (Specify _____)	644 %	645 %
Total	100%	100%

Office Use
1 = Inc. Has Catfish
2 = Sales Unknown
3 = Valid Zero
650

Point of First Sale Outlet: The first point at which money changes hands.

Direct to Consumers: Report sales of fish directly to the consumer for human consumption. Sales of fish from fee fishing operations should record their sales here if the fish are fed and value is added to the fish.

Export: Fish moved outside of US borders. This is a new addition in 2015 to bring January estimates closer to other programs.

Government Agencies: Sales to Federal, State or local government hatcheries or other groups involved in purchasing fish used to stock Federal, publicly owned, or regulated waters and recreational areas.

Live Hauler/Broker: Individual or company that generally purchases live fish from a producer and transports them in an oxygenated tank truck to other outlets, including processing plants, pay lakes, recreational lakes, or retail outlets.

Chapter 5

Completing the Questionnaire

Other: Outlets not meeting the above definitions are recorded here. Export sales should be listed here. If in doubt as to where to put sales, list them here with notes explaining the situation.

Processors: Fish that the operator sells/delivers directly to a plant for processing. 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, include fish raised by the operator and then processed through their own processing plant.

Recreational Stocking: Only include fish sold **TO** individuals or private enterprises for the sole purpose of stocking recreational waters.

- Fish sold to Federal State or local government agencies for stocking public waters should be reported as sold to “Government Agencies.”
- Fish that are sold for the purpose of stocking another producer’s commercial ponds should be reported as sold “Wholesale to Other Producers.”
- Fish sold **by** fee-fishing or U-fish operations should be listed as being sold “Direct to Consumers.”

Retail Outlets: Individuals, grocers, restaurants, or companies who buy fish to re-sell to consumers.

Value of Sales: Gross value of live weight sales. What the producer actually received before marketing and production costs are deducted.

Wholesale to Other Producers: These are other farmers who buy live fish to raise for future sale.

Section 5: Change in Operation (Section 4 in July)

Has this operation been sold or turned over to someone else to make the day-to-day operation decisions? If "YES" then please enter the information below, otherwise go to the Conclusion section.

SECTION 5: CHANGE IN OPERATION

1. Has this operation (name on label) been sold, or turned over to someone else?

743 **YES** – Identify the new operator(s) **NO** – Go to Section 6

Operation Name: _____	
Operator Name: _____	
Address: _____	Phone: (____) ____-_____
City: _____	State: _____ Zip: _____

Section 6: Conclusion

Ask the respondent whether or not they make the day-to-day decision for another operation. If 'YES,' then please collect the full name of the operations otherwise mark the check box for 'NO.' Survey results will be released nationally at 3:00 PM EST in late January and at 3:00 PM EST in late July. The release is available on the Internet at <http://www.nass.usda.gov/>. The Regional Field Office will provide a copy of survey results to growers that request it.

SECTION 6: CONCLUSION

1. Do you make day-to-day decisions for another catfish operation?

2377 **YES** – Identify the new operator(s) below **NO** – Continue

Operation Name: _____	
Operator Name: _____	
Address: _____	Phone: (____) ____-_____
City: _____	State: _____ Zip: _____

Chapter 5

Completing the Questionnaire

Survey Completion

Thank the respondent. Record the name of the respondent, the respondent's phone number, and the date of the interview.

Office Use – Response Block

Response Code

Upon completion of the interview, enter the response code in cell 9901. Response codes are:

Code 1 - **Complete**: The questionnaire is complete.

Code 2 - **Refusal**: The respondent refused to cooperate or grant an interview.

Code 3 - **Inaccessible / Incomplete**: The operator was not available throughout the survey period (inaccessible). You will also use code 3 if the respondent gave an interview but could not or would not answer a lot of the questions (incomplete questionnaire). If you determine that the target operation does not produce the selected commodity, code the questionnaire complete (code 1) and indicate the source of your information with a note.

Respondent Code

Upon completion of the interview, enter the respondent code in cell 9902. Respondent codes are:

Code 1 – **Operator/ Manager**

Code 2 – **Spouse**

Code 3 – **Accountant/ Bookkeeper**

Code 4 – **Partner**

Code 9 – **Other**

Mode Code

Upon completion of the interview, enter the mode code in cell 9903. Mode codes are:

Code 2 – **Telephone**

Code 3 – **Face-to-Face**

Enumerator Code

Enter your enumerator ID number in the Enum. code cell 9998 and print your name in the S/E Name box.

Chapter 5 Completing the Questionnaire

Respondent Name: _____	9911 Phone: (____) ____-____	9910 MM DD YY Date: _ _ _ _ _ _
------------------------	---------------------------------	--

Thank you for your response.

Office Use										
Response	9901	Respondent	9902	Mode	9903	Enum	Eval.	R.Unit	Chan	Optional Use for POID
1-Comp 2-R 3-Inac 4-Office Hold 5-R – Est 6-Inac – Est 7-Off Hold – Est		1-Op/Mgr 2-Sp 3-Acct/Bkgr 4-Partner 9-Oth		1-Mail 2-Tel 3-Face-to-Face 4-CATI 5-Web 6-e-mail 7-Fax 8-CAPI 19-Other						9989 ----- Optional Use 9907 9908 9906 9916
S/E Name _____										

Office Use - Completion Code Boxes

A completion code box is located at the end of each section. This box is to be completed when all data are inaccessible, refused, or when valid zeros are reported for all items in a section. Check with your State Coordinator for proper handling of partially completed sections. The concept of coding the completion boxes is the same for all surveys. The more information you can obtain from or about operators that refuse or are inaccessible, the better you can code these boxes. You will need to enter a code for the following situations:

- 1 = Incomplete, but has CATFISH. Through observation or other information, you know the operation has the item of interest on the total acres operated.
- 2 = After observation or other sources of information were sought out, you do not know if operation has CATFISH.
- 3 = Valid Zero. Enter this code whenever it is known, either through interviews or other sources, that the operator has none of the items of interest on the total acres operated.

“What if Situations” and qualifying for the Catfish/Trout Survey:

- 1. Target A purchased 5 inch fingerlings from a “Live Hauler”. Target A fed them and raised them up until they reached 12 inches and then sold them. Target A would report the fish since he further grew them out.
- 2. Target B purchased 11 inch fish from another producer and then quickly sold them to a processor without any further growing. Target B would NOT report the fish. There was no further growing.
- 3. Target C purchased fish from another operator. Target C then immediately processed and smoked the fish and sold the smoked fish to local restaurants. Target C would NOT report the fish as there was no further growing.
- 4. Target D purchased 4 inch fingerlings from a producer and then immediately sells them to another producer. There is no further growing. Do NOT count the fish that were purchased for immediate resale.

Chapter 5

Completing the Questionnaire

5. “Pay Lake Operations” – These operations may not qualify for either survey. You only report the fish at these type operations if they raised the fish themselves or they purchased them at a younger age and further grew them out. Most “Pay Lake Operations” have fish transported to their lake by a “Live Hauler” where they are immediately fished for by fishermen who pay to fish. Since there is no feeding or further growing on the part of the “Pay Lake Operation”, these fish would NOT be reported on the “Pay Lake’s” report.
6. We do not collect data on those operations who charge a straight permit fee to fish even though they raised them. For example, you would NOT collect information on those who charge \$6 dollars a pole to fish or \$10 a day to fish and you keep all the fish you catch. Also, recreational catch and release fish are NOT reported on the questionnaire. The catch and release operations are typically trout operations that have guided fishing tours or they have stretches of private streams for fishermen to fish. If you come across someone like this, please make notes on the questionnaire as to what they are doing. If in doubt, please call your supervisor.
7. Part year Operations: If the operator had any fish during any part of the year at all, complete the survey. They may have only operated from January 1 to July 1 and then went out of business. You would still complete a questionnaire for the time they were in business. Be sure to get the name, address and phone number of the new operator if there is one.
8. Operations that process their own fish: You may come across a large producer who is reporting a very high price for their fish compared to other operations of similar size. Example: Large producers typically get less than \$2.00 a pound for trout because they are selling their live fish in bulk to a processor, who processes the fish for meat, making dip, smoking the meat, etc. You might come across someone who is very large and they report a price per pound of \$6.00 or more.
- If you come across a large commercial producer who is selling their fish for more than \$4.00 a pound, there is a good chance the operator is processing his own fish. We need the live raw weight and the raw weight price for fish, not the processed weight and sales. If someone raises fish and then smokes the fish to sell, do not report the smoked price of the fish or the processed weight. Smoking fish is considered processing. Please ask the operator to give you the number of trout, an estimated total live weight and a live weight price. Also, if an operation processes their own fish, they may under report live weight for the fish since they are processing them. We need a realistic live weight price. Make notes.
9. Operations that catch wild fish by nets from public lakes, rivers, etc.: Fish that are caught with nets and then sold to restaurants, etc. are NOT to be counted on the questionnaire. Operations that catch wild fish are not considered agriculture and do not qualify for the Catfish/Trout Surveys.
10. Operations that raise fish by nets, cages, etc. in public or private lakes: If the operator has fish penned up in cages or nets and is feeding the fish, etc. for growing purposes, the fish would be counted in the survey.
11. Fish raised on contract: If an operation raises catfish/trout on a Production Contract for someone else, please document how much they produce for their own

operation and how much they raise on a Production Contract. We want the Total Numbers produced for their own operation and the Total Numbers raised for the Contractor. We also want the Total Pounds produced for their own operation and the Total Pounds for the Contractor. In regard to Total Sales, please document how much he sold his fish for and how much he received for the fish he raised on contract. Reason Why: If we included the Production Contract Fish Fees in with the Total Sales, we are under reporting the true value of the fish. That is why it is important to know if an operation reports raises fish on contract so we can value all of the fish based on what he is selling his own fish for.

Appendix 1: Catfish Length-Weight Table

On the following two pages are tables which may be used to determine the weight of a fish if the length is known. For lengths greater than 29.0 inches, look up the two digit length needed, and then move the length decimal one digit to the right and the weight decimal three digits to the right. For example, to find the weight of a 34 inch fish, look up 34 in the table. Listed is a 3.4 inch fish which averages .0113 pounds, so moving the decimal as instructed, a 34 inch fish would average 11.3 pounds.

Source: Colt, John E., length-weight calculator, website referenced on page 44.
G. A. Wedemeyer, editor, 2001. Fish hatchery management, second edition. American Fisheries Society, Bethesda, Maryland.

Appendix 1
Catfish Length-Weight Table

Catfish Length-Weight Table

Length Per Fish (Inches)	Ave. Weight Per Fish (Pounds)	Length Per Fish (Inches)	Ave. Weight Per Fish (Pounds)	Length Per Fish (Inches)	Ave. Weight Per Fish (Pounds)
Fry		2.7	.00566	5.5	.0479
.1	.0000003	2.8	.00632	5.6	.0505
.2	.0000023	2.9	.00702	5.7	.0533
.3	.0000078	3.0	.00777	5.8	.0561
.4	.0000184	3.1	.00857	5.9	.0591
.5	.0000360	3.2	.00943	Small Stockers	
.6	.0000621	3.3	.0103	6.0	.0621
.7	.0000987	3.4	.0113	6.1	.0653
.8	.000147	3.5	.0123	6.2	.0686
.9	.000210	3.6	.0134	6.3	.0719
1.0	.000288	3.7	.0146	6.4	.0754
1.1	.000383	3.8	.0158	6.5	.0790
1.2	.000497	3.9	.0171	6.6	.0827
1.3	.000632	4.0	.0184	6.7	.0865
1.4	.000790	4.1	.0198	6.8	.0905
1.5	.000971	4.2	.0213	6.9	.0945
1.6	.00118	4.3	.0229	7.0	.0987
1.7	.00141	4.4	.0245	7.1	.103
1.8	.00168	4.5	.0262	7.2	.107
1.9	.00197	4.6	.0280	7.3	.112
Fingerlings		4.7	.0299	7.4	.117
2.0	.00230	4.8	.0318	7.5	.121
2.1	.00266	4.9	.0338	7.6	.126
2.2	.00306	5.0	.0360	7.7	.131
2.3	.00350	5.1	.0382	7.8	.137
2.4	.00398	5.2	.0405	7.9	.142
2.5	.00450	5.3	.0428	8.0	.147
2.6	.00506	5.4	.0453	8.1	.153

Appendix 1
Catfish Length-Weight Table

Catfish Length-Weight Table (cont.)

Length Per Fish (Inches)	Ave. Weight Per Fish (Pounds)	Length Per Fish (Inches)	Ave. Weight Per Fish (Pounds)	Length Per Fish (Inches)	Ave. Weight Per Fish (Pounds)
8.2	.159	10.9	.373	13.7	.740
8.3	.165	11.0	.383	Small Food Size	
8.4	.171	11.1	.393	13.8	.756
8.5	.177	11.2	.404	13.9	.773
Large Stockers		11.3	.415	14.0	.789
8.6	.183	11.4	.426	14.5	.877
8.7	.189	11.5	.438	15.0	.971
8.8	.196	11.6	.449	15.5	1.07
8.9	.203	11.7	.461	16.0	1.18
9.0	.210	11.8	.473	16.5	1.29
9.1	.217	11.9	.485	17.0	1.41
9.2	.224	12.0	.497	Medium Food Size	
9.3	.231	12.1	.510	17.5	1.54
9.4	.239	12.2	.522	18.0	1.68
9.5	.247	12.3	.535	18.5	1.82
9.6	.255	12.4	.549	19.0	1.97
9.7	.263	12.5	.562	19.5	2.13
9.8	.271	12.6	.576	20.0	2.30
9.9	.279	12.7	.589	21.0	2.66
10.0	.288	12.8	.603	Large Food Size	
10.1	.296	12.9	.618	22.0	3.06
10.2	.305	13.0	.632	23.0	3.50
10.3	.314	13.1	.647	24.0	3.98
10.4	.324	13.2	.662	25.0	4.50
10.5	.333	13.3	.677	26.0	5.06
10.6	.343	13.4	.692	27.0	5.66
10.7	.352	13.5	.708	28.0	6.32
10.8	.362	13.6	.724	29.0	7.02