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Department of  
Agriculture



National  
Agricultural  
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Service

Agricultural  
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Board

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# Trout Production Survey

## Interviewer's Manual



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## **Chapter 1: General**

Aquaculture is defined as the farming of aquatic organisms including alligators, amphibians, crocodiles, crustaceans, finfish, mollusks, turtles, and plants. Aquaculture farming refers to the controlled process of growing aquaculture to a state of maturity sufficient for sale or release. Aquaculture encompasses individual, corporate, Federal, State, or Tribal ownership of the organism(s) reared and harvested. Farms surveyed are expected to produce, or have the potential to produce, annually agriculture products valuing \$1000 or more.

The trout survey includes commercial farming operations and State, Federal, Tribal, or other hatcheries where fish are distributed for conservation, restoration, or recreation purposes. Research operations are also included as trout operations. Trout fee fishing operations are included if value is added, that is, the fish are fed and gain weight. Include operations that charge a fee per unit (pound, head, or inch) or a blanket fee for fish caught.

Exclude operations that are not adding value through feeding and weight gain. Examples of trout operations to exclude are catch and release operations, or restaurants that serve fresh fish that you or they catch from a small holding pond. Exclude operations that are primarily recreational that take fish from public waters. Exclude any wild caught trout.

The Trout Production Survey is conducted in the following States:

Arkansas	Nebraska	Utah
California	Nevada	Virginia
Colorado	New Hampshire	Washington
Connecticut	New Jersey	West Virginia
Georgia	New Mexico	Wisconsin
Idaho	New York	Wyoming
Massachusetts	North Carolina	
Michigan	Oregon	
Missouri	Pennsylvania	
	Tennessee	

## **Chapter 1**

### **General**

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#### **Purpose**

The purpose of the trout survey is to provide reliable data for the industry to use in making informed production and marketing decisions. Aquaculture may be included in government legislation, so government and industry leaders need independent and unbiased information to accurately assess the industry's needs. Leaders of the trout industry requested the survey and have assisted in structuring its scope.

#### **Survey Plans**

The phases of the 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 trout farms and hatcheries; (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 at a minimum, yet giving all operators every opportunity to report.

## **Your Job**

You as an enumerator are to contact the selected producers and solicit their cooperation to supply data for the survey. You should be thoroughly familiar with the purpose of the survey. 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. The purpose of the survey should be reviewed in order to answer the respondent questions. Why is this being done? Of what use is it to me? If you cannot answer these questions now, please reread the Purpose section.

## **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 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**

**Trout** – For this survey, trout includes all freshwater species of trout as well as sea run trout and steelhead that were raised in a controlled environment. Include fish released into the wild (distributed fish), but exclude any fish caught from the wild. Also exclude landlocked salmon (Kokanee).

**Distributed Fish** – Fish that are produced for release into the wild for restoration, conservation, or recreational purposes. Distributed fish are counted in the Trout Survey, Census of Aquaculture, and Census of Agriculture. Values may be assigned by similar sales comparison or by other methods when applicable.

**Value of Sales** – Gross value of live weight sales. What the producer actually receives before marketing and production costs are deducted. Exclude cleaning charges.



## **Chapter 3: Survey Procedures**

### **Questionnaire**

Data will be collected by telephone and personal interview. One questionnaire version will be used. The enumeration period begins after January 1. The sales and loss questions refer to the 12 month period from January 1 through December 31 of the previous year.

The questionnaire is divided into the following sections:

- Identification
- Sales
- Losses
- Trout Distributed by Government or Tribal Agencies
- Change in Operator
- Conclusion

### **Respondent Burden**

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

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

### **Entering Data**

Use a black pencil to record data and 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 entirely inside the boxes. Record responses in the units indicated on the questionnaire. 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. Each question should be answered. Probe the respondent for a best estimate if actual data are unknown. If "zero", "none", etc. are reported for any question, please

## **Chapter 3**

### **Survey Procedures**

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indicate with a dash. All questions in this questionnaire refer to the previous calendar year. Sales data are requested for four categories - 12" or longer (generally foodsize), 6" to less than 12" (generally stockers), 1" to less than 6" (generally fingerlings), and eggs. Note that food size fish may be less than 12" in length. Number and live weight pounds are asked for fish but only the number of eggs is requested. Total dollars received for all sales is asked by length of fish and for eggs.

If the respondent has trouble reporting live weight pounds sold, refer to the Trout Length-Weight Table on pages 2 and 3 of Appendix 1. For example, the respondent reports selling 25,000 seven-inch fish for twenty-five cents per fish, but does not know the live weight. Looking at the Length-Weight Table, the table shows the corresponding weight per fish at .147 pounds. Multiplying 25,000 fish by 0.147 pounds per fish results in 3,675 pounds of fish. Enter 25,000 in cell 025 and 3,675 in cell 026. To calculate total sales multiply the price (\$ .25) times the number of fish (25,000) which results in \$6,250.

The trout operation may grow other fish species. The respondent should report data for the trout operation only. If the respondent is unable to separate the species, obtain an estimate of what percent trout make up the mixed operation. Note this percentage by the questions which contain answers for the mixed operation. The State office will convert the data. The following sections of this chapter provide detailed information about each question.

## **Chapter 4: Screening**

### **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 name, address and zip code, in the space around the label.



## **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 question of the Trout Survey questionnaire. As you read the manual, refer to a copy of your State's questionnaire.

Section of the Annual Questionnaire	Question Subject
1	Identification
2	Sales
3	Trout Losses
4	Trout Distributed by Government or Tribal Agencies
5	Change in Operation
6	Conclusion

## Chapter 5

### Completing the Questionnaire

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#### 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 a respondent answers “yes” to either a, b, or c, then go to Section 2, otherwise continue. If the respondent answers yes to question d, go to section 4, otherwise continue. For question e, regardless of how the respondent answers, go to section 5.

#### SECTION 1: IDENTIFICATION

1. On land operated by the farm, ranch or individual(s) listed on the label:
  - a. Was any water area on this operation used to raise trout or trout eggs during 20XX?  
2373    1  YES – Go to Section 2    3  NO – Continue
  - b. Was there any hatchery inventory or trout production on this operation during 20XX?  
2374    1  YES – Go to Section 2    3  NO – Continue
  - c. Were any trout sold from this operation during 20XX?  
376    1  YES – Go to Section 2    3  NO – Continue
  - d. Did this operation distribute trout or trout eggs for restoration, conservation, or recreational purposes during 20XX?  
**Exclude** captured trout.  
2375    1  YES – Go to Section 4    3  NO – Continue
  - e. Will any trout 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

**Section 2: Sales**

Total sales for the entire year are reported in Item 1. Except for trout eggs in question d, 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.

**SECTION 2: SALES**

1. During 20XX, what were the total trout sales of fish and eggs produced or raised (grown-out) on this operation. Include fish sold to someone else for distribution. Report trout **distributed** (not sold) in Section 4.

Fish Size	Total Number Sold	Total Pounds Live Weight Sold	Total Sales ** (Dollars)
a. 12 inches or longer . . . . .	022	023	024 \$ .00
b. 6 inches to less than 12 inches long . . . . .	025	026	027 \$ .00
c. 1 inch to less than 6 inches long . . . . .	057	058	059 \$ .00
d. Trout eggs . . . . .	028		029 \$ .00

\*\* Live weight price – exclude cleaning charges.

There are several operations that grow and process their own fish. The fish that are grown and processed by the same operation should be included in the number and pounds sold. Generally these fish will be included in the 12"+ group. These operations may not be able to provide total dollars received since the fish were not sold as live fish. However, every attempt should be made to obtain an average live weight price. If the grower/processor is able to provide an estimated average price or bought some fish to process, please make a note of these prices on the questionnaire. Exclude sales by brokers.

**Definitions**

**12” or Longer Fish** – Grown commercially for food, usually weighing from three fourths to one and one-half pounds.

**6” – 12” Fish** – These are usually stockers and usually weigh less than three-fourths of a pound. They may be sold as foodsize fish.

**1” – 6” Fish** – Usually considered fingerlings.

**Trout Eggs** – Eggs that are taken from female trout for production purposes.

## Chapter 5 Completing the Questionnaire

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### Sales Outlets

The sales outlet data are comparable to the sales reported in question 1. Sales of fish less than 6" are excluded. Record outlet entries to the nearest whole percent. The pieces for each category must add to 100 percent. Fish or eggs released by hatcheries should not be entered in this section.

2. During 20XX, what percent of the reported trout 12 inches or longer sales and the reported 6 inches to less than 12 inches sales (Items 1a and 1b, above), were sold to each of the following outlets?

Point of First Sale	Percent of Total Value of Sales:	
	12 inches or longer	6 to less than 12 inches
a. Processors – (also include fish processed on the operation) . . . . .	039 %	061 %
b. Live haulers/brokers . . . . .	030 %	031 %
c. Retail outlets – (restaurants, grocery stores, etc.) . . . . .	040 %	062 %
d. Direct to consumers – (farmers market, on-farm fee fishing) . . . . .	019 %	063 %
e. Recreational stocking – (private lakes and ponds) . . . . .	032 %	033 %
f. Wholesale to other producers – (to stock commercial and fee fishing operations) . . . . .	034 %	035 %
g. Government agencies . . . . .	036 %	037 %
h. Export . . . . .	070 %	071 %
i. Other, (specify: _____)	041 %	042 %
	100%	100%

### Terms Used to Describe the Point of First Sale

**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.

**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.

**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.

## Chapter 5 Completing the Questionnaire

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### Section 3: Trout Losses

Losses cover all trout death for fish intended for sale, including fish less than 6 inches long. Both number and pounds lost are required. Probe the respondents for best estimates when losses are unknown. Average length or pounds per fish lost can be used to derive total pounds or number if only one is known. (Refer to Appendix 1 to help derive missing data.) **Only losses that were intended for sale are included.** Losses of fish intended for distribution are not included. It is unusual for operations to have no trout sold, but trout losses.

#### SECTION 3: TROUT LOSSES

1. What were the total **number** and **live weight pounds** of trout lost (all lengths and sizes) during 20XX due to:

Cause of Loss	Intended for Sale	
	Total Number Lost	Total Pounds Lost
a. Disease .....	045	046
b. Theft or vandalism .....	047	048
c. Chemical contamination .....	049	050
d. Drought .....	051	052
e. Flood .....	053	054
f. Predator (animals, birds, etc.) .....	081	082
g. Other, (specify: _____)	055	056

**Chemical Contamination:** Include losses from pesticide or herbicide poisoning.

**Disease:** Include losses from both parasitic and bacterial caused sickness.

**Droughts:** Include losses from lack of water causing oxygen depletion.

**Floods:** Include losses from too much water washing the fish away.

**Other:** Include losses from any source not fitting the pre-listed causes. Please note the cause in comments.

**Predators:** Include losses from mink, otters, birds, and other animals.

**Theft or Vandalism:** The unauthorized removal of fish and/or the destruction of property causing a loss of fish by intentional acts of persons known or unknown.

#### **Section 4: Trout Distributed by Government or Tribal Agencies**

Fish and eggs **distributed** by State, Federal, Tribal or other hatcheries for restoration, conservation, enhancement, or recreational purposes (stocking lakes, ponds, and rivers) should be entered in this section. Fish and eggs **sold** by hatcheries should be entered in Section 2, Question 1. As a general rule, trout can be sold multiple times, but distributed only once.

Eggs should not be counted if the target operation hatches their own eggs to raise trout. Do not count the money free transfer of eggs or fish from one hatchery to another hatchery. Value for distributed trout should represent what would have been received if the fish had been sold. Include sea-run trout and steelhead, but exclude landlocked salmon (Kokanee).

Example 1 – Hatchery A transfers trout free of charge to Hatchery B which distributes the trout. The trout are counted for Hatchery B, not on Hatchery A. The screener questions would show that Hatchery A will produce trout in the future. The trout are counted under Hatchery B; as that is the end point of where the fish were actually distributed.

Example 2 – Hatchery C transfers eggs free of charge to Hatchery D which hatches the eggs and grows to fingerlings for distribution. The fingerlings should show as distributed under Hatchery D. The eggs will not go under either Hatchery. Screener questions would show Hatchery C will produce trout in the future.

Example 3 – Hatchery E transfers broodfish free of charge to Hatchery F which collects eggs and hatches the fry and grow to fingerlings for distribution. Hatchery F also distributes some of the broodfish received from Hatchery E. Hatchery F is counted for the fingerlings and broodfish distributed. There is no action to count Hatchery E, as they did not sell or distribute the broodfish.

Example 4 – Hatchery G raises trout, and they sell their fish through a “pay lake” or “fishable creek” where the target charges by the “pole” or “by the day”. Report the fish in the sales section (direct to consumers) and estimate a reasonable value.

Example 5 – Hatchery H has a “pay lake” where they charge by the inch/pound. Fish sold at Hatchery H should be reported in the sales section (direct to consumers).

## Chapter 5 Completing the Questionnaire

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### SECTION 4: TROUT DISTRIBUTED FOR RESTORATION, CONSERVATION, ENHANCEMENT, OR RECREATION

1. What were the total amounts of fish and eggs produced by this operation for restoration, conservation or recreational purposes during 20XX? Report fish sold in Section 2. (Exclude trout/trout eggs transferred to another operation for final distribution.)

Fish Size	Number Distributed	Total Pounds Live Weight Distributed	Estimated Total Value of Product Distributed
a. 12 inches or longer .....	201	202	203 \$ .00
b. 6 inches to less than 12 inches long .....	204	205	206 \$ .00
c. 1 inch to less than 6 inches long .....	207	208	209 \$ .00
d. Trout eggs .....	210		

### Section 5: Change in Operator (Section 13, Question 5 CoAq)

Has this operation been sold, or turned over to another person to make the day-to-day decision? If "yes," please enter the information below, otherwise go to section 4.

#### SECTION 5: CHANGE IN OPERATOR

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

23    1  YES – Identify the new operators(s) below    3  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 Eastern Time in late February. 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 trout operation?

2377    1  **YES** – Identify the new operator(s) below    3  **NO** – Continue

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

## **Survey Completion (Section 14 -- Conclusion CoAq)**

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

## Chapter 5 Completing the Questionnaire

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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.

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

Thank you for your response.

Office Use																	
Response	9901	Respondent	9902	Mode	9903	Enum	9998	Eval.	9900	R.Unit	9921	Chan	9985	Optional Use for POID			
1-Comp		1-Op/Mgr		1-Mail										9989			
2-R		2-Sp		2-Tel										-			
3-Inac		3-Acct/Bkpr		3-Face-to-Face										-			
4-Office Hold		4-Partner		4-CATI										Optional Use			
5-R – Est		9-Oth		5-Web										9907	9908	9906	9916
6-Inac – Est				6-e-mail													
7-Off Hold – Est				7-Fax													
				8-CAPI													
				19-Other													
S/E Name																	

### Office Use - Completion Code Boxes

Office Use Only	
1 – Incomplete Distributed Trout	200
2 – Distribution Unknown	
3 – Valid zero	

Completion code boxes are located in sections 2 and 3. These boxes are to be completed when all data are inaccessible, refused, or when valid zeros are reported for all items in a section. **Note that the 707 box refers to both sales (section 2) and losses of fish that are for sale (section 3).** The 200 box refers to distributed fish. 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 Distributed Trout - Through observation or other information, you know the operation has the item of interest on the total acres operated.

2 = Distribution Unknown - After observation or other sources of information were obtained, you do not know if the operation has Trout.

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.



## **Appendix 1: Trout Length-Weight Table**

### **General**

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 25.0 inches, look up the two digit length needed, 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 28 inch fish, look up 28 in the table. Listed is a 2.8 inch fish which averages .00915 pounds, so moving the decimal as instructed, a 28 inch fish would average 9.15 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**  
**Trout Length-Weight Table**

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**Trout 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)
1.0	.000406	3.8	.0231	6.6	.123
1.1	.000541	3.9	.0250	6.7	.128
1.2	.000704	4.0	.0269	6.8	.134
1.3	.000897	4.1	.0290	6.9	.140
1.4	.00112	4.2	.0312	7.0	.147
1.5	.00138	4.3	.0335	7.1	.153
1.6	.00168	4.4	.0360	7.2	.160
1.7	.00202	4.5	.0385	7.3	.166
1.8	.00240	4.6	.0411	7.4	.173
1.9	.00283	4.7	.0439	7.5	.181
2.0	.00331	4.8	.0468	7.6	.188
2.1	.00383	4.9	.0500	7.7	.196
2.2	.00441	5.0	.0529	7.8	.203
2.3	.00505	5.1	.0562	7.9	.211
2.4	.00574	5.2	.0596	8.0	.220
2.5	.00650	5.3	.0632	8.1	.228
2.6	.00731	5.4	.0668	8.2	.237
2.7	.00820	5.5	.0706	8.3	.245
2.8	.00915	5.6	.0746	8.4	.255
2.9	.0102	5.7	.0787	8.5	.264
3.0	.0113	5.8	.0830	8.6	.273
3.1	.0125	5.9	.0874	8.7	.283
3.2	.0137	6.0	.0919	8.8	.293
3.3	.0151	6.1	.0966	8.9	.303
3.4	.0165	6.2	.102	9.0	.314
3.5	.0180	6.3	.107	9.1	.324
3.6	.0196	6.4	.112	9.2	.335
3.7	.0213	6.5	.117	9.3	.346

**Appendix 1**  
**Trout Length-Weight Table**

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**Trout 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)
9.4	.358	11.3	.625	14.0	1.19
9.5	.369	11.4	.642	14.5	1.33
9.6	.381	11.5	.659	15.0	1.47
9.7	.394	11.6	.676	15.5	1.63
9.8	.406	11.7	.694	16.0	1.79
9.9	.419	11.8	.712	16.5	1.96
10.0	.432	11.9	.731	17.0	2.15
10.1	.445	12.0	.749	17.5	2.35
10.2	.458	12.1	.768	18.0	2.56
10.3	.472	12.2	.788	18.5	2.78
10.4	.486	12.3	.807	19.0	3.01
10.5	.500	12.4	.828	19.5	3.26
10.6	.515	12.5	.848	20.0	3.52
10.7	.530	12.6	.869	20.5	3.79
10.8	.545	12.7	.890	21.0	4.08
10.9	.560	12.8	.911	22.0	4.41
11.0	.576	12.9	.933	23.0	5.05
11.1	.592	13.0	.955	24.0	5.74
11.2	.608	13.5	1.07	25.0	6.49