Appendix B

General Explanation and Report Form

DEVELOPMENT OF THE REPORT FORM

Planning for the 2018 Census of Aquaculture started in 2017 with the mailout for the 2017 Census of Agriculture. The report form was developed through input from other government agencies, special interest groups, and each of NASS's field offices. Report form testing was conducted in several States and included various types of aquaculture producers. Aquaculture producers were asked to evaluate the report form through cognitive interviews, and patterns which emerged from these interviews were considered when making changes to the report form.

DATA CHANGES

Following are report form changes and their effect on the publication tables.

Report Form Changes

Added items include:

- Freshwater and saltwater area in square feet
- Crustacean and mollusk section, unit of pint

Deletions include:

 Screening skip pattern for aquaculture producers that solely produced and distributed aquaculture for restoration, conservation, enhancement, or recreational purposes

Table Changes

Aquaculture producers that solely produce and distribute aquaculture for restoration, conservation, enhancement, or recreational purposes are included in the following tables:

- Table 10. Freshwater and Saltwater Acres Used for Aquaculture Production
- Table 11. Sources of Water Used for Aquaculture Production

 Table 12. Methods Used for Aquaculture Production

DEFINITIONS AND EXPLANATIONS

The following definitions and explanations provide a detailed description of the terms used in this publication. Items in the tables which carry the note "See text" are also explained. For exact wording of the questions on the 2018 Census of Aquaculture report form, see a copy of the form at the end of this appendix.

Algae. These are a very large and diverse group of simple organisms that can range from the microscopic (microalgae) to large seaweeds (macroalgae), such as giant kelp more than 100 feet in length. Microalgae include both organisms similar to bacteria called blue green algae, as well as green, brown, and red algae. Most algae grow through photosynthesis.

Aquaponics. This is a system of aquaculture in which the waste produced by farmed fish or other aquatic animals supplies nutrients for plants grown hydroponically (cultivating plants in water), which in turn purify the water.

Baitfish. These are fish used for bait, such as crawfish for bait, fathead minnows, goldfish (feeder and bait), golden shiners, other shiners (emerald, silver, etc.), and suckers. Examples of fish in the Other baitfish category include hubs, leeches, and other types of minnows.

Broodstock. These are fish or other stock kept for reproduction, including males. Female broodfish produce the fertilized eggs which go to hatcheries.

Cages or pens. Cage culture involves growing a culture species in floating cages or baskets. Cages are normally used in larger, open bodies of water, such as

lakes or rivers. The sides of the cages are rigid and are made of materials like plastic or plastic covered wire. Pens are large enclosures usually placed in rivers or ocean bays. Pens are usually floated in the water, but may also be secured to the bottom. Pens are supported in some way, with the sides being flexible.

Carp, other. This category includes bighead, black, common, silver carp, and other carp not listed on the report form.

Crustaceans. These are invertebrate animals with a hard-shelled, segmented body and jointed legs. Examples include crawfish, lobsters, prawns, shrimp, and soft-shell crabs.

Direct to consumers. This sales category includes sales made directly to individuals for home consumption or placement in their ponds for personal use. Also included are operations that raise and market fish through their own fee fishing operation. Sales made to fee fishing operations are included under Wholesale to other producers.

Eggs. These are embryos surrounded by nutrient material and a protective covering.

Enhancement. This is a term often used on the West Coast with salmon. State and tribal hatcheries are releasing young salmon into known population areas to be harvested later upon the salmon return from the sea.

Fingerlings. A size category including young fish, larger than a fry but not an adult.

Flow through raceways. This is an environment where fish are in a confined area, usually long and narrow, in which water enters one end and exits the other. Raceways can either be a natural flow system or a closed system. A natural flow system uses the natural flow of a river or stream, with water diverted from the stream. A closed system has the water from the raceway flow through a series of ponds and then is pumped into a header pond that flows back into the raceway. The water area for a closed system is the surface acres of a raceway and all associated ponds. The area for a natural flow system is the surface acres that the raceway occupies.

Food fish. These are fish raised primarily for food.

Examples include hybrid striped bass, carp, catfish, flounder, yellow perch, red drum, salmon, sturgeon, tilapia, and trout. Examples of Other food fish include barramundi, cobia, Atlantic and black cod, pangasius/swai, seriola, yellow croaker, and other food fish not listed on the report form.

In the 2018 Census of Aquaculture, the summary by value of aquaculture products sold is published for all food fish, including catfish and trout. In addition, eggs from food fish are included in the food fish totals.

Foodsize. A size category including grown aquaculture products ready for market, also known as market size.

Fry. A size category including very young post-larval fish.

Government agencies. This sales outlet category includes sales made to Federal, State, or local government agencies, hatcheries, or other groups involved in purchasing aquaculture to stock Federal, publicly owned, or regulated waters and recreational areas.

Hybrid catfish. These are a cross between a female channel catfish and a male blue catfish.

Hybrid striped bass. These are a cross between a male white bass and a female striped bass.

Larvae. Newly hatched, earliest stage of animals that undergo metamorphosis, differing markedly in form and appearance from the adult.

Live haulers, brokers, etc. Individuals or companies that purchase aquaculture products from a producer for immediate resale. They may or may not take possession of the product. Live haulers transport aquaculture products in oxygenated tank trucks to other outlets, including processing plants, pay lakes, recreational lakes, and retail outlets.

Miscellaneous aquaculture. This category represents the production of aquaculture products other than food fish, sport fish, baitfish, ornamental fish, crustaceans, and mollusks. Examples include microalgae, sea vegetables such as seaweed and ogo, alligators, caviar, eels, frogs, sea urchins, snails, tadpoles, turtles, and live rock. Examples of Other

miscellaneous aquaculture include Gambusia and bioassay fish (fish used for toxicity testing).

Mollusks. These marine invertebrates. are Invertebrates have no backbone structure. In general, mollusks have three body regions: a head, a visceral mass, and a "foot." Mollusks usually have a shell; although, some do not. Examples include Abalone, clams, mussels, oysters. Examples of mollusks in the Other mollusk category include scallops and scallop seed.

Mollusks off bottom. The use of water column suspension techniques, including enclosures and lines for the production of normally bottom-dwelling mollusks. These techniques are designed to minimize bottom predators and maximize the use of a threedimensional space for cultivation.

Mollusks on bottom. The practice of raising mollusks on the bottom of tidal waters that have had oyster shell, clam shell, or other material added to improve the habitat for growth and survival.

Non-recirculating systems. Process of rearing aquatic organisms and discharging the water after its intended use.

Off farm water. Water that comes from a Federal supplier; irrigation district; mutual, private, or cooperative ditches; commercial company; municipal or community water system.

On farm surface water. Surface supply not controlled by a water supply organization. Examples include streams, drainage ditches, lakes, ponds, springs, and reservoirs.

Ornamental fish. These are fish raised for water gardens, aquariums, etc. Examples include Koi and guppies. An example in the Other ornamental fish category is seahorses.

Other aquaculture products. This category includes all aquaculture products that are not listed in the table.

Oysters, other. This category includes Kumomoto and other oysters besides Eastern and Pacific.

Pens. See Cages or pens.

Point of first sale. The first point at which money is exchanged for aquaculture products. For example, delivery of aquaculture products from the farm to the processing plant is considered to be the point of first sale.

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.

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.

Recirculating systems. Metal, plastic, or fiberglass tanks normally above ground and usually under cover used for the rearing of aquatic organisms where 90 percent or more of system water is recycled. Some tanks may consist of frames with liners.

Recreational stocking. When the point of first sale is recreational stocking, the purchaser will use the aquaculture production to stock private lakes or ponds.

Saltwater. Water from a sea or ocean, including brackish water. Freshwater converted to saltwater by adding chemicals was tabulated as saltwater acres used in production. The source of water was tabulated as freshwater.

Sea vegetables. A type of algae seaweed that grows naturally in the ocean.

Seed. A size category including young aquaculture species, generally oysters, clams, or mussels, used for stocking; newly fertilized, earliest stage of these animals, also known as seed stock.

Shellfish. An aquatic invertebrate animal with a shell, particularly an edible mollusk or crustacean.

Sport fish. These are fish raised primarily to be released into lakes and streams to be caught by sport fishermen. Fish may also be sold to fee fishing

operations. Examples include largemouth and smallmouth bass, crappie, muskie, northern pike, sunfish, and walleye.

Stockers. A size category including young aquaculture species that are large enough to be placed in the final grow-out pond, net, pen, or tank to grow to foodsize.

Sunfish. This category includes bluegill, coppernose, bream, redear/shellcrackers, etc.

Surface water acres. A measure of the number of square acres needed to cover the surface of a pond, tank, raceway, etc.

Value of sales. The gross value of sales before marketing and production costs are deducted.

Wholesale to other producers. This sales outlet category includes sales made to other aquaculture producers who buy live fish to raise for a later sale.

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: www.nass.usda.gov/confidentiality.Response to this survey is required by law under Title 7 USC 2204(g) Public Law 105-113.

2018 CENSUS OF AQUACULTURE

National Agricultural Statistics Service Please return your completed report to: Census of Aquaculture 1201 East 10th Street Jeffersonville, IN 47132

Please make corrections to name, address and ZIP code if necessary.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0535-0237. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Everyone who receives a form must return one by mail or via the Internet at

www.agcounts.usda.gov

Your report is due by January 14, 2019.

Questions? Call us toll free at 1-888-4AG-STAT (1-888-424-7828)

SECTION 1: AQUACULTURE PRODUCTION SCREENING

1.	crustaceans, d	or other aquaculture products? Produce means that inputs are supplied to add weight or or of aquatic animals.
	INCLUDE: •	Catfish, trout, food and/or sportfish, baitfish, crustaceans and mollusks, ornamental fish miscellaneous aquaculture, and aquaculture distributed.

EXCLUDE: • Wild-caught products.

Aquaculture products brokered for immediate resale or distribution.

Yes - Go to Section 2, page 2

No - Go to Section 13, page 16

SE	CTION 2: SOURCES OF WATER							
1.	In 2018, which of the following SOURCES of water did the Check all that apply.	nis op	eration us	se for i	ts aqı	uacult	ure production	າ?
	Groundwater / Well water - Water from a well recycled from a well pond.	or we	lls locate	d on th	is farı	m or a	another farm,	or
	On-farm surface water - Surface supply not co streams, drainage ditches, farm lakes, runoff po farm.							
	Off-farm water - Water from a federal supplier, ditches, commercial company, or municipal (tow						neighborhood	
	Saltwater - Include brackish water, tidal, sub-tid	al, op	en public	water	ways,	owne	ed or leased.	
SE	CTION 3: METHODS OF PRODUCTION							
			Freshw	vater Acr	es		Freshwat Surface A	
1.	In 2018, how many freshwater acres or surface area square feet were used to produce fish, mollusks,		Acre	s	Tenths	OR	Square Fe	eet
	crustaceans, or other aquaculture products?	120		į		090		
	a. Of those reported in 1, how many were rented or			į				
	leased FROM others? (Include leased from the State.) 124				091		
			Saltwa	ter Acres	3		Saltwate	er
2.	In 2018, how many saltwater acres or surface area		Acres		Tenths		Surface A	
	square feet were used to produce fish, mollusks, crustaceans or other aquaculture products?	121				OR 092		
	 a. Of those reported in 2, how many were rented or leased FROM others? (Include leased from the State.) 122				093		
3	Which production methods did this operation use in 2018	2						
	Report each production area only once. All production equal the total production area reported in Question 1 and	areas	s reported	d unde	r Que	stion	3a-3j should	
	a. Ponds:						Number	-
	(i) How many ponds were used to produce aquacultu (Exclude flooded cropland)					125		
		,	Acres	Tenths			Square Fe	et
	(ii) What was the total water surface area of these ponds?				OF	२ 139		
							Acres	Tenths
	b. Cropland used for crawfish: How many total croplar for crawfish production?					129		
							Number	,
	c. Flow through raceways: How many raceways were aquaculture products?					132	11411155	
					Co	ntinı	ued on pag	e 3
					50		aca on pag	. 3

3.	(C	ontinued from previous page) Which production methods did this operation use in	2018	3?	
	d.	Recirculating systems (Exclude aquaponics, report in Item 3f):		Number	
		(i) How many recirculating tanks, where 90 percent or more of the system water is recycled, were used to produce aquaculture products?	126		
				Gallons	
		(ii) What was the total volume of these tanks?	135		
			133		
	e.	Non-recirculating systems: (i) How many non-recirculating tanks, where 89 percent or less of the system		Number	
		water is recyled, were used to produce aquaculture products?	123		
				Gallons	
		(ii) What was the total volume of these tanks?	140		
	f.	Aquaponics:		Number	
		(i) How many tanks were used to produce aquaculture products in an		Number	
		aquaponics system?	128		
				Gallons	
		(ii) What was the total volume of these tanks?	134		
	g.	Cages or Pens:	1	Number	
		(i) How many cages or pens were used to produce aquaculture products? (Exclude traps)	127		
		(Cubic Fee	t
		(ii) What was the total volume of these cages or pens?	133		
				Acres	Tenths
	h.	Mollusks on bottom: What was the total water area?	136		
	i.	Mollusks off bottom: Which of the following were used? Check all that apply.			
	١.				
		141 Floating Trays 143 Long lines 145 Rafts 8013			
		Racks and bags 144 String culture 146 Other, specify:			
	:	Other method not listed above: Report unit and volume.			
	J.	Specify type ¬		Volume	
		137	138		
		137	136		

SE	CTION 4: CATFISH						
1	Did this operation produce any catfish in 20	1192					
١.	272	110 !					
	1 Yes - Continue						
	No - Go to Section 5, page 6						
2.	What are the total WATER ACRES used an		n th	nis operation to	produce		Acres
	catfish during the period of January 1 – Jur (Exclude areas of new facilities under constr	ruction)				259	
	a. How many of the total acres are currently	v beina or will	be I	RENOVATED?	>	. 260	
	b. How many of the total acres are USED F						
	c. How many of the total acres are USED F						
	d. How many of the total acres are USED E		•				
	d. How many of the total acres are OSED E	ACLUSIVELI	FU	K FINGERLIN	GS?	. 262	
3.	What is the water area of NEW FACILITIES for use during the period of January 1 – Ju					263	
	for use during the period of January 1 – Ju	He 30, 2013 :.				203	
4.	Of the facilities previously used to produce of OUT OF PRODUCTION during the period of					. 264	
	·	-					
5.	How many of the total acres are USED OR during the period of January 1 – June 30, 2	TO BE USED 2019?	FOI	R HYBRID CA	TFISH	265	
	<u>-</u>						
6.	On January 1, 2019 , what was this operation categories? For items 6b through 6g, exclude					wing siz	ze
					INVENTORY		
	SIZE CATEGORY	Total Number	OR		Av	erage P	
		721		720	Per Fish	Tenths	Per 1000 Fish
	Broodfish - fish being used or to be used for breeding		OR				
	(0 0 0 0000 101 01000 1110 0110 1110 111	724		723	725		
	b. Large Foodsize - over 3 lbs		OR				
	c. Medium Foodsize - over 1½ lbs.	727		726	728		
	C. Wedium Foodsize - Over 1/2 ibs.		OR				
	to 3 lbs		UK			<u> </u>	
		730	UK	729	731		
	d. Small foodsize - over ¾ lbs. to 1½ lbs		OR	729	731		_
	d. Small foodsize - over ¾ lbs. to 1½ lbs	730	OR	729	731		735
	d. Small foodsize - over ¾ lbs. to 1½ lbs	733		729	731		
	 d. Small foodsize - over ¾ lbs. to 1½ lbs. e. Large Stockers - over 180 lbs. to 750 lbs./1000 fish f. Small Stockers - over 60 lbs. 		OR	729 732 736	731		735
	 d. Small foodsize - over ¾ lbs. to 1½ lbs	733	OR OR	729 732 736	731		
	 d. Small foodsize - over ¾ lbs. to 1½ lbs. e. Large Stockers - over 180 lbs. to 750 lbs./1000 fish f. Small Stockers - over 60 lbs. 	733	OR OR	729 732 736	731		739
	 d. Small foodsize - over ¾ lbs. to 1½ lbs. e. Large Stockers - over 180 lbs. to 750 lbs./1000 fish f. Small Stockers - over 60 lbs. to 180 lbs./1000 fish g. Fingerlings - 2 to 6 inches OR 	733	OR OR	729 732 736	731		739
	 d. Small foodsize - over ¾ lbs. to 1½ lbs. e. Large Stockers - over 180 lbs. to 750 lbs./1000 fish f. Small Stockers - over 60 lbs. to 180 lbs./1000 fish g. Fingerlings - 2 to 6 inches OR 	733	OR OR	729 732 736	731		739
	 d. Small foodsize - over ¾ lbs. to 1½ lbs. e. Large Stockers - over 180 lbs. to 750 lbs./1000 fish f. Small Stockers - over 60 lbs. to 180 lbs./1000 fish g. Fingerlings - 2 to 6 inches OR 	733	OR OR	729 732 736	731		739

Note: Catfish produced and not sold but distributed for restoration, conservation, or recreation purposes should be reported in Section 12, page 15.

7. During 2018, what were this operation's Total Catfish Sales? Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. If this operation has its own processing plant, the reported sales should be the value going into the plant.

SOLD AS:	Total Number Sold	Total Pounds Live Weight Sold	Total Sales (Dollars)
	610	609	611
a. Broodfish (fish being used or to be used for breeding)			\$.00
	613	612	614
b. Broodfish (previously used for breeding)			\$.00
	616	615	617
c. All Foodsize (over ¾ lbs. per fish)			\$.00
	619	618	620
d. Stockers (over 6 inches) or (over 60 lbs. to 750 lbs. per 1000 fish)			\$.00
	622	621	623
e. Fingerlings (2 to 6 inches) or (2 lbs. to 60 lbs. per 1000 fish)			\$.00
	625	624	626
f. Fry (under 2 inches) or (less than 2 lbs. per 1000 fish)			\$.00
	627		628
g. Catfish Eggs (fertilized)			\$.00

8. In 2018, what percent of the total value of catfish sales reported in Items 7a - 7g above was sold directly to each of the following point of first sale outlets? Exclude fish bought for immediate resale or fish brokered by this operation.

	Percent of Total Value of Sales:					
POINT OF FIRST SALE OUTLET	FOODSIZE over ¾ pound (Include Broodfish)			STOCKERS 3/4 lb. or less (usually 6 inches or more in length)		
a. Processors (also include fish processed on the operation)	640		%			
b. Live haulers/brokers	630		%	631		%
c. Retail outlets (restaurants, grocery stores, etc.)	642		%			
d. Direct to consumers (farmers market, on-farm fee fishing)	638		%			
e. Recreational stocking (private lakes and ponds)	632		%	633		%
f. Wholesale to other producers (to stock commercial and fee fishing operations)	634		%	635		%
g. Government agencies	636		%	637		%
h. Exports	646		%	647		%
i. Other, specify:	644		%	645		%
Total		100%			100%	
270 Office Use Only Acres 760		Use Only entory 650	0		Use Only ales	

SE	CTION 5: TROUT					
1.	Did this operation sell any trout or trout eggs in 20 restoration, conservation or recreation purposes shaped of the self-and s	nould be reported	I in Section 12, pa	ge 15	i).	
	should reflect the price received at the farm gate, operation has its own processing plant, the reported	excluding packag	ging and distribution	n cos	ts. If this	
	FISH SIZE:	Total Number Sold	Total Pounds Live Weight Sold		Total Sales** (Dollars)	
		067	068	069	, ,	
	a. Broodfish (fish being used or to be used for breeding)			\$.00
		022	023	024	<u> </u>	
	b. 12 inches or longer	025	026	\$ 027	7	.00
	c. 6 inches to less than 12 inches long	02.5	020	\$.00
		057	058	059)	
	d. 1 inch to less than 6 inches long			\$.00
	•	028		029)	
	e. Trout Eggs (fertilized)			\$.00
3.	In 2018, what percent of the total trout value of sa the outlets listed below? Exclude fish bought for in			old di	rectly to each o	
				RCENT	OF OF SALES	
	POINT OF FIRST SALE OUTLET		12 inches or longer		6 to less than 12 inches	
	a. Processors (also include fish processed on the	e operation)	039	% 06	51	%

POINT OF FIRST SALE OUTLET		PERCENT OF TOTAL VALUE OF SALES			
		2 inches or longer		6 to less than 12 inches	
a. Processors (also include fish processed on the operation)	039	g	6	061	%
b. Live haulers/brokers	030	o,	6	031	%
c. Retail outlets (restaurants, grocery stores, etc.)	040	9	6	062	%
d. Direct to consumers (farmers market, on-farm fee fishing)	019	o,	6	063	%
e. Recreational stocking (private lakes and ponds)	032	o,	6	033	%
f. Wholesale to other producers (to stock commercial and fee fishing operations)	034	o,	6	035	%
g. Government agencies	036	o,	6	037	%
h. Exports	070	o,	6	071	%
i. Other, specify:	041	o,	6	042	%
Total		100%		100%	

4.	What were the total number and live weight pounds of trout lost reasons? INCLUDE: Only losses intended for sale All lengths and sizes	durii	ng 2018 for each	of the following
	CAUSE OF LOSS		INTENDED	FOR SALE
	3.1332 31 2333		Number	Pounds
	a. Disease	045		046
	b. Theft or vandalism	047		048
	c. Chemical contamination	049		050
	d. Drought	051		052
	e. Flood	053		054
	f. Predators (animals, birds, etc.)	081		082
	g. Other, specify:	055		056
	Trout distributed should be reported in S	ect	707	15.

r sport fish, including ced and not sold but ed in Section 12, pag	distri	buted for		
category use a sen	arate l	line for each		
e price received at the essing plant, the report	farm of ted sa	gate, excluding lles should be the		
MNS				
4		5		
mber n or Sold Total Pounds Live Weight Sol	i	Total Sales		
per Pounds		Dollars		
18,000	\$	45,000 .00		
9,000	\$	70,000 .00		
303	304			
	\$.00		
308	309			
	\$.00		
313	314			
	Φ.	0.0		
318		.00		
310				
		.00		
323	324			
	\$.00		
328	329			
	\$.00		
333	334			
	Φ	.00		
338	3 39	.00		
348		.00		
340				
	\$.00		
Name Code Name Code <th< td=""></th<>				
	Code Na St Mai	Total Pounds Poun		

	11211		ISH
SECT			-

1.	Did this operation sell any baitfish, including crawfish sold for bait, in 2018? Report crawfish for food in
	Section 8. (Baitfish produced and not sold but distributed for restoration, conservation or recreation
	purposes should be reported in Section 12, page 15).

379	1		Yes - Continue
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3		No ·	- Go	to	Section	8,	page	10
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	No - Go to Section 8, page 10	Acres	Tenth
2.	How many surface acres of water were used to produce baitfish in 2018? 400		

- Report baitfish sales below. Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. Exclude fish bought for immediate resale or fish brokered by this operation. Report baitfish sold by the:
 - Pound or Number of fish in TABLE 3a. If the total number of fish sold is not known, report the approximate number of fish per pound.
 - Gallon in TABLE 3b. If pounds and number of fish are not known, approximate. Report crawfish sold for bait in sacks.

TABLE 3a: Baitfish Sold by the Pound or Number of Fish

Species Raised and Sold		Pounds Live Weight Sold		Numb	er of	Total Sales					
Species Raised and Sold				Total Number of Fish Sold			Number of Fish per Pound		(Dollars)		
Example: Fathead minnows	ows 20				OR		250		\$	225	.00
Fathead minnows	402		401		OR	403		404	\$.00
Goldfish - feeder and bait	410		409		OR	411		412	\$.00
Golden shiners	418		417		OR	419		420	\$.00
Other shiners (Emerald, silver, etc.)	426		425		OR	427		428	\$.00
Suckers	434		433		OR	435		436	\$.00
Crawfish - bait (report crawfish for food in Section 8)	442		441		OR	443		444	\$.00
Other, 8029 specify:	450		449		OR	451		452	\$.00

TABLE 3b: Baitfish Sold by the Gallon

		PLEASE	CON	IPLETE ALL	COLU	MNS	i						
Species Raised and Sold		al Number of allons Sold	Pe	Pounds r Gallon Sold	Tenths	F	Number of ish per Gallon		Total Sales (Dollars)				
Example: Golden shiners		150	8		5		1,500	\$		6,000	.00		
Fathead minnows	405		406			465		466	\$.00		
Goldfish - feeder and bait	413		414			415		416	\$.00		
Golden shiners	421		422			423		424	\$.00		
Other shiners (Emerald, silver, etc.)	429		430			431		432	\$.00		
Suckers	437		438			439		440	\$.00		
Crawfish - bait in sacks (report crawfish for food in Section 8)	445		446		 	447		448	\$.00		
Other, 8031 specify:	453		454			455		456	\$.00		
										·			

SEC	TION 8: CRUSTACEANS A	AND crav	MOLI wfish,	LUS oys	KS ters, shrimp, sof	t-sh	ell crabs, etc.)							
:	Did this operation sell any crustaceans or mollusks in 2018? (Crustaceans and mollusks produced and not sold but distributed for restoration, conservation or recreation purposes should be reported in Section 12, page 15).													
	380 1													
	No - Go to Section 9, page 12 Report each species and size category on a separate line. Value of sales should reflect the price received													
;	Report each species and size category on a separate line. Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. If this operation has its own processing plant, the reported sales should be the value going into the plant. Report crawfish for bait in Section 7. CONTINUE ACROSS EACH LINE FROM PAGE 10 TO PAGE 11. ANSWER ALL 9 COLUMNS FOR EACH LINE.													
		E FR		GE 1		SWEF		OR		→				
	1		2		3		4		5 Unit Sold					
LINE	Species produced and sold	C	Code		Enter Code		Number		Enter Code					
	Example: Crawfish		7		1		100,000		2	→				
	Example: Pacific oyster seed		13		4		8,000,000		1	→				
	Example: Eastern oysters	881	12	882	1	883	150	884	4	→				
01			<u> </u>							→				
02		889		890		891		892		→				
03		897	!	898		899		900		→				
04		905		906		907		908		→				
05		913		914		915		916		→				
06		021		922		923		924		→				
07		929		930		931		932		→				
08		937		938		939		940		→				
09		945		946		947		948		→				
10		954		955		956		957		→				
11		962		963		964		965		→				
12		970		971		972		973		→				
	e Cod	е	Name			Code	e Name		Co	ode				
Clan Clan Clan Clan Ent	NameCodeNameCodeNameCodeAbalone1Crawfish for food - report crawfish for bait in Section 7Oysters, Eastern12Clams, hard2crawfish for bait in Section 77Oysters, Pacific13Clams, Manila3Lobster8Oysters, otherEnter name in first column14Clams, Geoduck4Mussels9Enter name in first column14Clams, other.Prawns, fresh water10Other crustaceansEnter name in first column15Crabs, soft-shell5Shrimp, salt water11Other mollusksEnter name in first column16													

SECTION 8, CRUSTACEANS AND MOLLUSKS, CONTINUES ON THIS PAGE.

		6				7		8			9			
		Weight of pro If unit code in column 5=2 or			uct sold 3, skip columns 6 and 7			Average Number of crustaceans or mollusks per unit sold			Total Sales			
		Number of pound per unit sold	ds	OR		Total pounds Sold		(column 5=1), skip this column						
LINE		Pounds	Tenths			Pounds		Number			Dollars			
				OR				20		\$	50,000	.00		
				OR						\$	50,000	.00		
		5	5	OR				120		\$	9,000	.00		
01	886		İ	OR	885		887		888	\$.00		
02	894			OR	893		895		896	\$.00		
03	902			OR	901		903		904	\$.00		
04	910			OR	909		911		912	\$.00		
05	918			OR	917		919		920	\$.00		
06	926			OR	925		927		928	\$.00		
07	934			OR	933		935		936	\$.00		
08	942			OR	941		943		944	\$.00		
09	951			OR	949		952		953	\$.00		
10	959			OR	958		960		961	\$.00		
11	966			OR	967		968		969	\$.00		
12	974			OR	975		976		977	\$.00		

1. Did this operation sell ar distributed for restoration 381	ection a sepa distri	amental fish in 2016 aservation or recreated 10, page 13 arate line. Value of bution costs. Exclude 2 Number of units produced and sold	sales should reflete fish bought for 3 Unit Sold 1 - Number of fish 2 - Pounds 3 - Boxes 4 - Bags 5 - Other, specify: 8116	ect the imme	e price received ediate resale or 4 erage number fish per unit p this column if a sold is number sh (column 3=1)	at the farm gate, fish brokered by 5 Total Sales	5).
Species produced and sold	Code	Number	Enter code		Number	Dollars	
Example: Koi Example: Ornamental,	2	12,000	1			\$ 24,000	.00
Freshwater live bearers	3	200	3		250	\$ 6,000	.00
	651	652	653	654		655	
	656	657	658	659		\$.00
						\$.00
	661	662	663	664		665	.00
						\$.00
	666	667	668	669		670	
						\$.00
	671	672	673	674		675	
						\$.00
	676	677	678	679		680	
	681	682	683	684		\$ 685	.00
	001	002	000	004			
	686	687	688	689		\$.00
						\$.00
	691	692	693	694		695	.00
						\$.00
	696	697	698	699		700	
						\$.00
	701	702	703	704		705	
						\$.00
Name C Goldfish Koi Ornamental fish - Freshwater live bearers				4 5	Name Other ornamenta seahorses, inveetc Enter nar	als - include	6

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1.	Did this operation sell any other aquaculture products in 2018? (Aquaculture products produced and not
	sold but distributed for restoration, conservation, or recreation purposes should be reported in Section 12,
	page 15.)

1 Yes - Continue

No - Go to Section 11, page 14

2. Include only other aquaculture products. Include all size categories within each species. Value of sales should reflect the price received at the farm gate, excluding packaging and distribution costs. If this operation has its own processing plant, the reported sales should be the value going into the plant.

PLEASE COMPLETE ALL COLUMNS												
Species Produc	ed and Sold		Total Number Sold		Total Pounds Sold			Total Sales (Dollars)				
	roalgae					470	\$.00			
Sea (sea	a Vegetables aweed, ogo)			471		472	\$.00			
Alligators: Wh	ole	743		744		745	\$.00			
Mea	at			747		748	\$.00			
Hid	es (report in feet)	749				751	\$.00			
Caviar				753		754	\$.00			
Eels		755		756		757	\$.00			
Frogs		758		759		761	\$.00			
Sea Urchins		762		763		764	\$.00			
Snails		765		766		767	\$.00			
Tadpoles		768		769		770	\$.00			
Turtles: Wh	ole	771		774		772	\$.00			
	js	773				775	\$.00			
Live rock: 8085 specify unit		776		777		778	\$.00			
Other, specify:		779		780		781	\$.00			
Other, specify:		782		783		784	\$.00			
Other, specify:		085		786		787	\$.00			
Other, specify:		791		792		793	\$.00			
Other, specify:		794		795		796	\$.00			
Other, specify:		797		798		799	\$.00			

SECTION 11: SALES OU	TLET BY SP	ECIES (I	=X(clude	ca	thish and t	rout)						
1. Did this operation sell any of their aquaculture products in 2018?													
EXCLUDE: • Catfish and trout.													
Aquaculture products brokered for immediate resale or distribution.													
Yes - Continue													
3 No - Go to Se	No - Go to Section 12, page 15												
2. In 2018, what percent of this operation's total value of aquaculture sales was sold directly to the following outlets for each species category?													
Point of first sale outlet	Food fish												
Processors	801	831					861		851	871			
(include aquaculture products processed on the operation)	9,	ó	%					%	%	%			
<u> </u>	804	834		814		824	864		854	874			
Live haulers/brokers	9	, 0	%		%	9/	,	%	%	%			
	802	832		812	, ,	822	862		852	872			
Retail outlets (restaurants, grocery stores, etc.)	9	,	%		%	9/	,	%	%	%			
Direct to consumers	803	833		813	/0	823	863	70	853	873			
(farmers market, on-farm fee fishing)	9	ó	%		%	9/		%	%	%			
110111119)	805	835		815	/0	825	865	70	855	875			
Recreational stocking (private lakes and ponds)	9	6	%		%	9/	,	%	%	%			
Wholesale to other	806	836		816		826	866		856	876			
producers (to stock commercial and fee fishing operations)	9	4	%		%	9/		%	%	%			
iistiirig operations)	807	837	/0	817	70	827	867	70	857	877			
Covernment anomales	9	,	%		%	9/	,	%	%	%			
Government agencies	809	839	70	819	70	829	869	70	859	879			
_ ,	0	,	0/		0/		,	0/	0/	0/			
Exports	808	838	%	818	%	828	868	%	858	878			
Other,	9/		%		%			%					
specify: Total	100%	100%	-	100%		100%		00%	100%	100%			
10.001	10070	10070		100 /		10070		70	10070	10070			

SECTION 12: AQUACULTURE DISTRIBUTED (Not sold)

1.	Did this operation distribute aquaculture products for restoration, conservation, enhancement, or
	recreational purposes during 2018? Exclude aquaculture reported in previous sections.

383 1 **Yes -** Continue

³ **No -** Go to Section 13, page 16

What were the total amounts produced and distributed by this operation, by species category, in 2018? Include all size categories within each species. For fish, crustaceans or mollusks distributed, report both number and pounds. For eggs or seed, report only the number distributed. Write in species not listed.

Species	Number distributed		Pounds distributed		N	Estimated Total Value of Product Distributed					
Bass, striped	509		510		511		521	\$.00		
Bass, largemouth	551		552		553		522	\$.00		
Catfish	501		502		503		523	\$.00		
Fathead minnows	554		555		556		581	\$.00		
Northern pike	557		558		559		582	\$.00		
Perch	560		561		562		583	\$.00		
Salmon	505		506		507		584	\$.00		
Shad	563		564		565		585	\$.00		
Sunfish ¹	566		567		568		591	\$.00		
Trout - 12 inches or longer	201		202			203	\$.00			
Trout - 6 to less than 12 inches long	204		205	205			206	\$.00		
Trout - 1 to less than 6 inches long	207		208				209	\$.00		
Trout Eggs					210		212	\$.00		
Walleye	517		518		519		593	\$.00		
Clams	525		526		527		595	\$.00		
Mussels	529		530		531		601	\$.00		
Oysters	533		534		535		602	\$.00		
Alligators	572		573		574		603	\$.00		
Crawfish			576		577		604	\$.00		
Turtles	578		579		580		605	\$.00		
Other, 8093 specify:			538		539		606	\$.00		
Other, 8094 specify:	541		542		543		607	\$.00		
Other, 8095 specify:	544		545		546		608	\$.00		
¹ Sunfish includes bluegill, coppern	¹ Sunfish includes bluegill, coppernose, bream, redear/shellcrackers, etc. Office Use Only										

SEC	SECTION 13: OPERATION															
1.	Did this operation grow and sell aquatic plants in 2018?															
	384 1	Ye	s													
	3	No														
2.	In the future, does this operation intend to produce aquaculture products?															
	386	Ye	S													
	3	No														
3.	It is important that we do not duplicate data. Is it possible the information on this form would be reported												d			
	by another operation or under another name? Area Code and Phone Number:															
	387	Ye	s - List name		096				8	8097		-		-		
	3			0 11010	,											
4.	Do you i	таке	any day-to-	day de	ecisions to	or and	otner	aquacur	ture ope			Code and F	Phone N	lumber:		
	388	Ye	s - List name		098				8	8099		-		-		
			- Continue													
5			ation (name	on ad	ldress laha	al) ha	aan sa	old or tu	rned ov	or to	n son	neone el	so?			
Э.	rias tilis	open	ation (name			51) De	5611 30	na or ta				Code and F		lumber:		
	389 1	Ye	s - List name		100					3101		-		-		
	3 ☐ No - Continue															
SEC	CTION 1	4: C	ONCLUSIO	N												
СО	MMENTS:															
1091																
	Responde	ent Na	me:													J
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	Area Coo	le and	Phone Number	r:									Date: (N	/M-DD-	YY)	J
9911		-	-									9910				
	E-mail															J
1095																
	This completes the questionnaire. Thank you for your cooperation.															
The complete report will be available on the Internet at http://www.nass.usda.gov in fall of 2019. OFFICE USE ONLY																
F	esponse	Responde						R Unit	Enum.	Ev	Eval.	Change	Office Use for POID			OID
1-Co 2-R	mp	9901	1-Op/Mgr	9902	1-Mail 2-Tel		9903	9921	9998	9900	0	9985	9989			
3-Ina	c ice Hold		2-Sp 3-Acct/Bkpr		3-Face-to-F 4-CATI	ace										
5-R-			4-Partner 9-Oth		5-Web 6-e-mail								9907	Option 9908	9906	9916
7-Off	Hold-Est own Zero				7-Fax 8-CAPI											
	Name				19-Other											

Form Number: 18-A622 (I) (9-24-18)



INSTRUCTION SHEET 2018 CENSUS OF AQUACULTURE



Completing the 2018 Census of Aquaculture Census form

Make all entries clear and easy to read. Use a **blue** or **black** ball point pen.

General

Refer to the instructions below for completing your 2018 Census of Aquaculture form. The enclosed census form was mailed to aquaculture producers throughout the United States. Because it is meant for use in all parts of the country, it may contain items and inquiries which do not apply to your operation. In this case, mark the "No" or "None" box and continue to the next item or section. If you did not produce aquaculture products of any kind in 2018, please see the instructions in Section 1 on this page.

Partial Year Operation

If you stopped producing aquaculture products at any time during 2018, complete the census form for the portion of 2018 that you did produce. Write "Stopped producing in 2018" and the date you stopped producing below the address area. Mail the completed census form in the return envelope.

If You Receive More Than One Census Form for the Same Operation

Return any duplicate census forms in the same envelope with your completed census form(s). In the address area of the census form(s) you complete, write the 11-digit ID number from the label of the extra census form(s).

Partnership Operations

Complete only ONE census form for a partnership operation and include all partners' shares on the same census form. If two or more census forms are received for the partnership, see instructions above for "If You Receive More Than One Census Form for the Same Operation".

How to Enter Your Responses on the Census Form

Please enter your answers in the proper spaces and in the units requested, i.e., tenth of acres, gallons per minute, dollars, etc. Mark all applicable Yes/No boxes with an "X".

Instructions by Section

Section 1 – Aquaculture Production Screening This section determines whether or not your operation is within the scope of this census.

Item 1 – Report whether you produced any aquaculture or aquaculture products of any kind in 2018. Aquaculture products include fish of any kind, shellfish, mollusks, crustaceans, egg production, food or sport fish, baitfish, ornamentals, catfish, crawfish, koi, minnows, oysters, perch, soft-shell crabs, trout, turtles, algae, alligators, live rock, and any other aquaculture products. If you did not produce any aquaculture products of any kind in 2018, please mark "No" and continue to Section 13 on the back page of the form and complete the remainder of the census form.

Section 2 - Sources of Water

This section determines sources of water that this operation used for its aquaculture production in 2018.

Section 3 - Methods of Production

Items 1 and 2 – Report the freshwater and saltwater acres or surface area owned, rented, or used for aquaculture production in 2018 by the respondent, spouse, partnership, corporation, or organization identified on the questionnaire. All responses in this section should be rounded to tenths of acres OR reported in square feet of surface area.

Items 1a and 2a — Report the freshwater and saltwater acres or surface area used for aquaculture production in 2018 that was rented or leased FROM others on shares, cash rent, used rent-free, in exchange for services, for taxes, etc., regardless of location, even if used for part of the year. Include leased from the State. All responses should be rounded to tenths of acres OR reported in square feet of surface area.

Freshwater is water with less than 0.5 parts per thousand dissolved salts. May be found in lakes,

rivers, bodies of groundwater, or obtained from wells or surface runoff.

Saltwater is water from a sea or ocean, including brackish water. In addition, it is freshwater converted to saltwater by adding chemicals.

Item 3a (i) – **Ponds.** A body of standing water, either natural or artificial, that is usually smaller than a lake.

Item 3b – Cropland used for crawfish. Include both permanent and rotational.

Item 3c – Flow through raceways. A confined area, usually long and narrow, in which water enters one end and exits the other. Raceways can either be a natural flow system, using the natural flow of a river or stream, or a closed system where the water from the raceway flows through a series of ponds and then is pumped into a header pond that flows back into the raceway. The water area for a closed system would be the surface acres of the raceway and of all associated ponds. The area for a natural flow system would be the surface acres that the raceway occupies.

Cubic feet to gallons conversion. U.S. gallon = cubic feet x 7.5.

Item 3d (i) – Recirculating systems. Metal, plastic, or fiberglass tanks normally above ground and usually under cover used for the rearing of aquatic organisms where 90 percent or more of the system water is recycled. Some tanks may consist of frames with liners.

Item 3e (i) – Non-recirculating systems. Metal, plastic, or fiberglass tanks normally above ground and usually under cover used for the rearing of aquatic organisms where 89 percent or less of the system water is recycled. Some tanks may consist of frames with liners.

Item 3f (i) – **Aquaponics.** A system that combines aquaculture with hydroponics (cultivating plants in water) in a symbiotic environment.

Item 3g (i) – Report the number of **cages and pens** used to produce Aquaculture products. Exclude traps (used to capture aquatic creatures).

Cages. The sides of the cages are rigid and are made of materials like plastic or plastic-covered wire.

Pens are large enclosures usually placed in rivers or ocean bays. Pens are usually floated in the water, but may also be secured to the bottom. Pens are supported in some way, with the sides being flexible.

Item 3h – **Mollusks on bottom.** Growing on the bottom.

Item 3i – **Mollusks off bottom.** Growing without touching the bottom.

Item 3j – Other method. Other methods not listed.

Section 4 - Catfish

Item 5 – The hybrid catfish is a combination of a female channel catfish and a male blue catfish.

Section 5 - Trout

Item 4a - **Disease** includes losses from both parasitic and bacterial caused sickness.

Item 4b - Theft or vandalism includes the unauthorized removal of fish and/or the destruction of property causing a loss of fish by intentional acts of persons known or unknown.

Item 4c - Chemical contamination includes losses from pesticide or herbicide poisoning.

Item 4d - **Droughts** include losses from lack of water causing oxygen depletion.

Item 4e - Flood include losses from too much water washing the fish away.

Item 4f - **Predators** include losses from mink, otters, birds, and other animals.

Item 4g - Other include losses from any source not fitting the pre-listed causes. Please note the cause in comments.

Section 6 – Food and/or Sport Fish

Item 1 – This question determines whether you produced and sold **Food and/or Sport Fish**.

Item 2 - Report the number sold, total pounds and total sales for each type and size of food and/or sport fish produced.

Column 1 – Record the type of food or sport fish produced and sold.

Column 2 – Record the size category code being reported. Foodsize includes grown aquaculture products ready for market. Stockers are large enough to be placed in the final grow-out pond, net, pen, or tank. Fingerlings are young fish, larger than a fry but not an adult. Fry are very young, post-larval fish. Broodstock are fish kept for egg production, including males. **Eggs** are embryos surrounded by nutrient material and a protective covering.

Column 3 - Report the total number of fish or eggs sold.

Column 4 - Report total pounds of fish sold. Complete for all size categories except eggs.

Column 5 - Total revenue received from the sale of the food and sport fish produced.

Section 7 - Baitfish

Item 1 – This section determines whether you produced and sold Baitfish. Crawfish for food is reported in section 8.

Baitfish are fish used for bait, such as crawfish, fathead minnows, golden shiners, emerald or silver shiners, feeder and bait goldfish, suckers, chubs, leeches, and other types of minnows.

Table 3a - For Baitfish sold by the pound or number of fish, report the Total pounds live weight sold, and Total Sales. Total sales should reflect the price received at the farm gate, excluding packaging and distribution costs.

Report either the total number of fish sold or number of fish per pound.

Table 3b - For Baitfish sold by the gallon, report the total number of gallons sold, Pounds per gallon, number of fish per gallon and total sales.

Section 8 - Crustaceans and Mollusks (Includes clams, crawfish, oysters, shrimp, soft-shell crabs, etc.)

Item 1 - This section determines whether you produced Crustaceans and/or Mollusks, including crawfish for food. Crawfish for bait is reported in section 8.

Crustaceans are invertebrate animals with a hard shelled segmented body, and jointed legs. Examples include crawfish, lobsters, prawns, shrimp, and soft shell crabs.

Mollusks are marine invertebrates (no backbone). In general, mollusks have three body regions: a head, a visceral mass, and a "foot." Mollusks usually have a shell, although some do not. This category includes abalone, clams, mussels, oysters, scallops and scallop seed.

Section 9 - Ornamental Fish

Item 1 – This section determines whether you produced and sold Ornamental Fish.

Ornamental fish are raised for water gardens, aquariums, etc. Examples include koi, ornamental goldfish, tropical fish, and ornamental catfish.

Item 2 - Report each species and type of unit sold on separate lines. Types of units sold include number of fish, pounds, boxes, bags, etc. Report the number of units produced and sold in column 2.

Column 5 -- Report total sales in dollars. Total sales should reflect the price received at the farm gate, excluding packaging and distribution costs

Section 10 - Miscellaneous Aquaculture

Item 1 – This section determines whether you produced and sold Miscellaneous Aquaculture. This includes Algae, alligators, eels, frogs, sea urchins, snails, tadpoles and turtles. Do not include wild caught or harvested items.

Item 2 - Report total number and weight sold of all sizes within each species. Total sales should reflect the price received at the farm gate, excluding packaging and distribution costs.

Section 11 – Sales Outlet by Species (Exclude catfish and trout)

Item 1 – Report where the operation sold its production directly. The percentage for each category of product must equal 100 percent. Catfish and trout are reported in sections 4 or 5.

Processors are companies that convert live fish to a product ready to cook and distribute, such as fish fillets.

Live haulers/brokers are individuals or companies that purchase aquaculture products from a producer for immediate resale. They may or may not take possession of the product. Live haulers transport aquaculture products in oxygenated tank trucks to other outlets, including processing plants, pay lakes, recreational lakes, and retail outlets.

Retail outlets are individuals, grocers, restaurants, or companies who buy aquaculture products to resell to consumers.

Direct to consumers are sales made directly to individuals for home consumption or placement in their ponds for personal use. This includes places that raise and market fish through their own fee fishing operation.

Recreational stocking includes aquaculture sold to individuals or private enterprises for the sole purpose of stocking recreational waters.

- Aquaculture sold to Federal State or local government agencies for stocking public waters should be reported as sold to "Government Agencies."
- Aquaculture 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."

Wholesale to other producers includes aquaculture sold to other farmers who raise for future sale.

Government agencies includes sales to Federal, State, or local government hatcheries or other groups involved in purchasing aquaculture to stock Federal, publicly owned, or regulated waters and recreational areas.

Exports includes aquaculture moved outside the United States borders.

Other includes outlets not meeting the above definitions. Export sales should be listed here if not going directly out of the United States. If in doubt as to where to put sales, list them here with notes explaining the situation.

Section 12 - Aquaculture Produced and Distributed (not sold) for Restoration, Enhancement, Conservation, or Recreational Purposes

Complete this section if the operation distributed any aquaculture products for restoration, enhancement, conservation or recreational purposes in 2018. If the operation did not distribute any aquaculture products, skip to Section 13.

Fish and eggs distributed without charge should be entered here. Fish and eggs sold should be excluded from this table and reported as sales in the appropriate section.

Section 13 - Operation

Item 3 – If this operation has additional names, or connections to additional operations, record the name and phone number here.

Item 4 – This question determines if the operator made day to day decisions for multiple operations. If you are involved with any other aquaculture operation, list them here.

Item 5 – If this operation was sold or turned over to someone else, record the new operators name and phone number here.

Section 14 - Conclusion

Print your name, phone number, e-mail address, and the date you completed the questionnaire.