
Introduction

The 2023 Census of Aquaculture expands the aquaculture data collected from the 2022 Census of Agriculture and provides a current and comprehensive picture of the aquaculture sector at the State and national levels. The aquaculture census collects detailed information relating to production methods, surface water acres and sources, production, sales, point of first sale outlets, and aquaculture distributed for restoration, conservation, enhancement, or recreational purposes.

HISTORY

The 2023 Census of Aquaculture is the fifth national census conducted by the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS), to collect data about the industry. The first aquaculture census was conducted in 1998, in response to the intense need for an accurate measure of the aquaculture sector. Additional censuses were conducted in 2005, 2013, and 2018. Since 1974, the Census of Agriculture has collected limited aquaculture data.

USES OF CENSUS OF AQUACULTURE DATA

The census of aquaculture data are needed by all those involved in the aquaculture sector – Federal, State, and local governments, agribusinesses, trade associations, producers, and many others. Some needs of the data include:

- Growers need census data to make informed decisions about the future of their own operations, including whether to expand production, and to compare production volumes and pricing points with State and U.S. averages.
- Aquaculture businesses and suppliers need the facts and figures to determine the best locations for facilities that serve producers and to plan production and marketing of new products.
- Legislators need census numbers to shape policies and programs, and to evaluate and determine government funding and resources. Extension and university representatives need the data to determine research needs and to justify research funding and programs to develop new and improved methods of aquaculture production and profitability.

LEGAL AUTHORITY

The census of agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law authorizes the Secretary of Agriculture to conduct surveys deemed necessary to furnish annual or other data on the subjects covered by the census. The 2023 Census of Aquaculture was conducted under the provisions of this section.

FARM DEFINITION

Aquaculture is defined as the farming of aquatic organisms, including baitfish, crustaceans, food fish, mollusks, ornamental fish, sport or game fish, and other aquaculture products. Farming involves some form of intervention in the rearing process, such as seeding, stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated, in a controlled environment at least part of the time. Fish, shellfish, and other aquatic products which are caught or harvested by the public from non-controlled waters or beds are considered wild caught and are NOT included as aquaculture farms. In addition, aquatic plants, except algae and sea vegetables, are not considered as aquaculture for the census of aquaculture. For the 2023 Census of Aquaculture, an aquaculture farm is defined as any place from which \$1,000 or more of aquaculture products were produced and sold or produced and distributed for restoration, conservation, enhancement, or recreation during the census year.

DATA COMPARABILITY

Data definitions are comparable between the 2023 and 2018 aquaculture censuses. Dollar figures are expressed in current dollars and have not been adjusted for inflation or deflation. For additional information, see Appendix A. Specific data changes in 2023 are listed in Appendix B.

REFERENCE PERIOD

Production, agricultural practices, and marketing practices are measured for January 1, 2023, through December 31, 2023.

TABLES AND APPENDICES

Tables. Table 1 shows the number of farms and the market value of aquaculture products by type sold for the U.S. and each State. Tables 2, 3, 6 and 7 provide summaries of aquaculture products sold by species and size category at the U.S. level. Tables 4, 5, and 8 provide summaries of aquaculture products sold by species at the U.S. level. Table 9 provides a summary by value of aquaculture products sold at the U.S. level. Tables 10, 11, and 12 present data items for operations producing aquaculture products at the U.S. and State level. This includes operations with sales and operations which produced and distributed aquaculture products for conservation, recreation, enhancement, or restoration purposes. Tables 13 through 20 present selected data items for operations with sales of aquaculture products at the U.S. and State level. Table 21 presents the percent of aquaculture product sales by the first point of sales. Tables 22 and 23 provide information by species for operations that distributed aquaculture products for conservation, recreation, enhancement, or restoration purposes. Table 22 is at the U.S. level; Table 23 is at the U.S. and State level. Table 24 provides data for acres used for hybrid catfish production at the U.S. and State level. Throughout the publication average weight and average price data are published. These values are based on the number of fish sold, pounds sold, and total sales at the U.S. and State level. Average weight and average price data may vary considerably among farms due to different size, use, or marketing channels.

Appendix A. Provides information about the statistical methodology, including data collection and data processing activities, used in conducting and evaluating the census.

Appendix B. Includes definitions of terms used in this publication, including items in the publication tables that carry the note “see text.” It also provides facsimiles of the report form and instruction sheet used to collect data.

RESPONDENT CONFIDENTIALITY

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about the operations of an individual farm unless there is specific written permission. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data

reported by a respondent or allows a respondent's data to be accurately estimated or derived, was suppressed and coded with a 'D'. However, the number of farms reporting an item is not considered confidential information and is provided even though other information is withheld.

SPECIAL STUDIES AND CUSTOM TABULATIONS

Special studies such as the 2023 Census of Aquaculture and the 2023 Irrigation and Water Management Survey are part of the census program and provide supplemental information to the 2022 Census of Agriculture in the respective subject area. Results are published on the internet.

Custom-designed tabulations may be developed when data are not published elsewhere. These tabulations are developed to individual user specifications on a cost-reimbursable basis and shared with the public. Quick Stats, NASS's online database that allows data users to build customized queries, should be investigated before requesting a custom tabulation.

All special tabulations are subject to a thorough disclosure review prior to release to prevent the disclosure of any individual respondent data. Instructions to request a special tabulation can be found on the [NASS website](#), including information about timing, fees, and the submission form. Questions can be directed to SM.NASS.Data.Lab@usda.gov.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used throughout the tables:

- Represents zero.
- (D) Withheld to avoid disclosing data for individual farms.
- (H) Coefficient of variation is greater than or equal to 99.95 percent or the standard error is greater than or equal to 99.95 percent of mean.
- (L) Coefficient of variation is less than 0.05 percent or the standard error is less than 0.05 percent of the mean.
- (NA) Not available.
- (X) Not applicable.
- (Z) Less than half the unit shown.