



Mink Methodology and Quality Measures

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Scope and Purpose: The Mink Survey is conducted annually, which includes all States with known mink operations. Data are collected on the number of pelts produced, females bred, and the components of the totals by color class. Marketing data for the price per pelt and the value of mink production are collected from auction houses and incorporated as part of the publication.

Data collected on the number of pelts produced and females bred by color class are published for 10 States. The publication contains estimates for seven other States, which are combined into an “Other States” category. After each Census of Agriculture, which is an exhaustive data collection effort for all known agricultural operations across the United States, the list of published States is evaluated and modified to include the largest mink producing States.

Survey Timeline: Data are collected for the previous year’s production beginning from late April to early May with a survey mailing. Approximately two weeks after the mailing, telephone follow-up is conducted for non-response records for a period of about one week. Headquarters (HQ) completes analysis, summarization, and sets estimates over approximately a six-week period ending in mid-July. Estimates are released to the public in mid-July on the date designated by the Agricultural Statistics Board (ASB) on its annual publications calendar.

Sampling: The target population for the Mink Survey is all mink operations which are defined as all agricultural establishments with one or more mink females bred on the land operated. This survey is a complete census of the records on the National Agricultural Statistics Service (NASS) List Frame with positively reported mink data from a past survey. The List Frame is a current and unduplicated list of agricultural operations, and all current mink operations are assumed to be on the list. If a new mink operation is found at any time, the operation is added to the List Frame. Since this is a census of mink operations, no sample weights exist. Each respondent operation accounts only for itself.

Data Collection: All federal data collections require approval by the Office of Management and Budget (OMB). NASS must document the public need for the data, apply sound statistical practice, prove the data does not already exist elsewhere, and ensure the public is not excessively burdened. The questionnaire must display an active OMB number that gives NASS the authority to conduct the survey, a response burden statement that gives an estimate of the time required to complete the form, a confidentiality statement that the respondent’s information will only be used for statistical purposes in combination with other producers, and a statement saying that response to the survey is voluntary and not required by law.

All Regional Field Offices (RFO) use the same, standardized questionnaire for data collection. For consistency across modes, the paper version is considered the master questionnaire and the web-based self-interview and Computer Assisted Telephone Interview (CATI) instruments are built to model the paper instrument. Questionnaire content and format are evaluated annually through a specifications process where requests for changes are evaluated and approved or disapproved.

Sampled operations receive a pre-survey letter explaining the purpose and importance of the survey and that they are being contacted for survey purposes only. Attached to the letter is a complete copy of the paper questionnaire and a pass code to complete the survey securely online. RFOs are responsible for their data collection strategy which must include provisions for respondents to report securely online. If a response is not received by mail or online, respondents are contacted by CATI.

Survey Edit: As survey data are collected and captured, data are edited for consistency and reasonableness using automated systems. Relationships between data items (i.e. responses to individual questions) on the current survey are verified. Some data items in the current survey are compared to data items from earlier surveys to ensure certain relationships are logical. The edit will determine the status of each record to be either “dirty” or “clean”. Dirty records must be updated and reedited or certified by an analyst to be clean. Only clean records are eligible for analysis and summary.

Analysis Tools: Edited data are processed through an interactive analysis tool which displays data for all reports by item. The tool provides scatter plots, tables, charts, and special tabulations that allow the analyst to compare an individual record to similar records. Outliers and unusual data relationships become evident and HQ staff review them to determine if they are correct. The tool allows comparison to an agricultural operation’s previously reported data to detect large changes in the operation. Data found to be in error are corrected, while accepted data are retained.

Non-sampling Errors: Non-sampling errors are present in any survey process. These errors include reporting, recording, and editing errors. Steps are taken to minimize these errors, such as comprehensive interviewer training, validation, and verification of processing systems, application of detailed computer edits, and evaluation of the data via the analysis tools.

Estimators: The Mink Survey is a complete enumeration of all known mink operations. Mink operations are selected from the list of all agricultural operations and new operations are added into the sample when discovered. No coverage adjustment is made.

Response to the Mink Survey is voluntary. Producers may refuse to participate in the survey, may not be located during the data collection period, or may submit incomplete reports. The non-response data items and sampling units are manually imputed by HQ statisticians. Since manual imputation is conducted for all non-response units and items, point estimates are an accounting of all responses and manual imputations. The measurement of error due to sampling in the current survey period is irrelevant for a fully enumerated census. Moreover, standard errors and coefficients of variation (CVs) are zero for all current data items collected.

Estimation: When all samples are accounted for, all responses are fully edited, and the analysis material is reviewed, HQ executes a summary to evaluate and analyze State and National data. Since the survey instrument is identical all States, the samples can be pooled and National survey results computed. The summary results provide multiple point estimates and information used to evaluate the quality of the survey estimates, such as response rates.

HQ is responsible for performing a detailed review of their survey results. Any irregularities revealed by the summary must be investigated and, if necessary, resolved. Using the historical survey estimates, HQ must validate the survey results and set State and National estimates. The data are viewed in tabular and graphical form.

For the National estimates, NASS assembles a panel of statisticians to serve on the ASB. The same estimators used in the State summaries are produced by the National summary. The ASB reviews the National results and establishes the National estimates. State totals sum to the National level.

Previous year’s estimates are subject to revision when current year’s estimates are set. Revisions are the result of late reports or corrected data.

Quality Metrics for Mink

Purpose and Definitions: Under the guidance of the Statistical Policy Office of the Office of Management and Budget (OMB), the United States Department of Agriculture’s National Agricultural Statistics Service (NASS) provides data users with quality metrics for its published data series. The metrics tables below describe the performance data for all surveys contributing to the publication. The accuracy of data products may be evaluated through sampling and non-sampling error. There is no sampling error present for this survey since it is a census of the target population. Non-sampling error is evaluated by response rates and the weighted item response rates.

Sample size is the number of observations selected from the population to represent a characteristic of the population. Operations that did not have the item of interest or were out of business at the time of data collection have been excluded.

Response rate is the proportion of the above sample that completed the survey.

Weighted item response rate is a ratio of reported survey data expanded by the original sampling weight compared to final non-response adjusted summary totals.

Mink Survey Sample Size and Response Rates: To assist in evaluating the performance of the estimates in the mink report, the sample size and response rates are displayed. Response rates overall for 2020 and 2021 are displayed.

Mink Survey Sample Size and Response Rates – United States: 2020-2021

	2020		2021	
	Sample size (number)	Response rate (percent)	Sample size (number)	Response rate (percent)
United States	196	79.6	147	74.8

Mink Survey Weighted Item Response Rates: To assist in evaluating the performance of the estimates in the mink report, the weighted item response rate is displayed nationally by color class and for 10 States and all Other States and Nationally for pelts produced (2019 and 2020) and females bred (2020 and 2021).

Quality Metrics for Mink Pelts Produced and Females Bred by Color Class – United States: 2019-2021

Color class	Weighted item response rate			
	Pelts produced		Females bred to produce kits	
	2019 (percent)	2020 (percent)	2020 (number)	2021 (number)
Black	77.1	86.5	73.8	87.3
Demi/Wild	42.4	38.3	54.6	29.6
Pastel	61.2	55.8	30.4	54.8
Sapphire	49.1	47.7	51.6	47.4
Blue Iris	86.1	79.1	70.9	74.8
Mahogany	71.9	74.4	70.1	72.7
Pearl	7.0	3.6	4.1	7.1
Lavender	58.6	62.5	39.1	35.3
Violet	94.7	94.8	92.3	93.3
White	93.7	79.2	95.2	83.2
Other	49.7	35.7	45.0	7.1
Total	72.7	74.6	68.0	75.1

Quality Metrics for Mink Pelts Produced and Females Bred – Selected States and United States: 2019-2021

State	Weighted item response rate			
	Pelts produced		Females bred to produce kits	
	2019	2020	2020	2021
	(percent)	(percent)	(percent)	(percent)
Idaho	42.7	66.0	53.0	62.0
Illinois	99.1	91.8	91.8	92.3
Iowa	96.1	90.8	96.3	92.2
Michigan	100.0	100.0	100.0	100.0
Minnesota	93.1	72.4	81.1	73.3
Oregon	34.4	73.6	32.0	73.1
Pennsylvania	59.5	77.1	45.1	75.6
Utah	71.5	66.9	62.5	65.5
Washington	100.0	75.1	100.0	76.4
Wisconsin	89.1	94.0	84.7	94.4
Other States	43.9	46.9	65.8	47.4
United States	72.7	74.6	68.0	75.1

Information Contacts

Process	Unit	Telephone	Email
Estimation	Livestock Branch	(202) 720-3570	HQ_SD_LB@usda.gov
Data Collection	Survey Administration Branch	(202) 720-3895	HQ_CSD_SAB@usda.gov
Questionnaires	Data Collection Branch	(202) 720-6201	HQ_CSD_DCB@usda.gov
Sampling and Editing	Sampling Editing and Imputation Methodology Branch	(202) 690-8141	HQ_CSD_SB@usda.gov
Summary and Estimators	Summary Estimation and Disclosure Methodology Branch	(202) 690-8141	HQ_SD_SMB@usda.gov
Dissemination	Data Dissemination Office	(202) 720-3869	HQSDOD@usda.gov
Media Contact and Webmaster	Public Affairs Office	(202) 720-2639	HQOAPAO@usda.gov

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For more information on NASS surveys and reports, call the NASS Agricultural Statistics Hotline at (800) 727-9540, 7:30 a.m. to 4:00 p.m. ET, or e-mail: nass@usda.gov.

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