

UNITED STATES DEPARTMENT OF AGRICULTURE
FOOD SAFETY AND INSPECTION SERVICE
WASHINGTON, DC

FSIS NOTICE

56-23

10/16/23

FISCAL YEAR 2024 DIOXIN SURVEY LIVESTOCK (CATTLE AND SWINE)

I. PURPOSE

This notice informs inspection program personnel (IPP) assigned to federally inspected cattle and swine slaughter establishments that the Fiscal Year (FY) 2024 Dioxin Survey will be conducted over 12 months. The survey data will be used to determine dioxin levels in U.S. beef and pork.

II. BACKGROUND

A. FSIS, in conjunction with the USDA Agricultural Research Service (ARS), Edward T. Schafer Agricultural Research Center in Fargo, ND, is conducting the FY 2024 Dioxin Survey to determine levels of dioxins and dioxin-like compounds in the U.S. domestic beef and pork products FSIS regulates. Dioxins are a group of compounds of public health concern. These compounds are ubiquitous but generally occur at very low levels throughout the environment as persistent environmental contaminants.

B. FSIS will issue instructions to IPP on Siluriformes fish sampling for the 2024 Dioxin Survey in a separate notice.

III. REFERENCES AND REVIEW OF MATERIALS

Upon issuance of this notice, IPP assigned to establishments that are eligible to participate in the FY 2024 Dioxin Survey are to become familiar with the information provided in this notice and the following FSIS issuances:

[FSIS Directive 7.355.1](#), *Use of Sample Seals for Laboratory Samples and Other Applications*.

[FSIS Directive 13.000.2](#), *Performing Sampling Tasks in Official Establishments Using the Public Health Information System*.

IV. AWARENESS MEETING WITH ESTABLISHMENT MANAGEMENT

A. Upon issuance of this notice, the Inspector-in-Charge (IIC) at an establishment that slaughters one or more cattle and swine sub-classes eligible for the FY 2024 Dioxin Survey will conduct an awareness meeting with establishment management to inform them of the survey. Eligible sub-classes of cattle and swine include steers, heifers, and market swine.

B. IPP are to refer the establishment to the information in [Attachment 1](#), "Information for Establishments on the Fiscal Year (FY) 2024 Dioxin Survey," prior to sample collection.

DISTRIBUTION: Electronic

NOTICE EXPIRES: 11/1/24

OPI: OPPD

C. The IIC is to advise establishment management that it is eligible and can be randomly selected for sampling. If the establishment is selected for sampling:

1. Sample collection will begin on or after November 1, 2023;
2. IPP will collect 0.5 (one-half) pound of fat tissue from the slaughter class designated in the sampling task (steers, heifers, and market swine), as assigned. In cases where IPP also receive a sampling task for fat and liver for the same slaughter class (e.g., steer), IPP are to collect 0.5 (one-half) pound of fat tissue and 0.5 (one-half) pound of liver tissue from the same carcass. Sampling tasks requiring collection of both fat and liver will only be assigned for the cattle classes described in [Section V](#). The sampling task for market swine is assigned to collect fat tissue only, as described in [Section V](#). Liver is excluded for market swine;
3. IPP will collect and record all animal identification information as part of the sampling task;
4. Individual sample results from the FY 2024 Dioxin Survey will not be the basis for regulatory actions;
5. Carcasses selected for sampling under this project do not need to be held pending test results reporting; and
6. Sample results for the FY 2024 Dioxin Survey will not be reported through Public Health Information System (PHIS) but will be posted to the FSIS website as aggregate data once the project is completed.

V. SAMPLE TASK ASSIGNMENT

A. IPP will receive FY 2024 Dioxin Survey sample requests through PHIS with one or more of the following sampling project codes, as applicable:

1. Cattle – Steer: **DIOX_ST_F (Steer – Fat Only)** or **DIOX_ST_FL (Steer – Both Fat and Liver)**
2. Cattle – Heifer: **DIOX_HF_F (Heifer-Fat Only)** or **DIOX_HF_FL (Heifer - Both Fat and Liver)**
3. Swine – Market Swine: **DIOX_MS_F (Market Swine – Fat Only)**

B. The sample request will appear in PHIS as a sampling task on the establishment task list. IPP are to add the task to their task calendar and follow the instructions in [FSIS Directive 13.000.2](#) for completing the task.

C. If an establishment receives a sample request for both fat and liver tissues, one sampling task will appear in PHIS ending in ‘_FL’ (e.g., DIOX_ST_FL). IPP are to add the task to the task calendar and follow the instructions in [FSIS Directive 13.000.2](#) for scheduling and completing the task.

D. IPP have 37 days from the date of the sample request (sampling window) to collect and ship the sample to the ARS laboratory. IPP are to collect the sample during the 37-day sampling window. After this 37-day window has closed, IPP will no longer be able to collect the sample.

VI. SAMPLING SUPPLIES FOR FY 2024 DIOXIN SURVEY

A. Approximately one week before the sampling task appears on the task list, IPP will receive the dioxin survey sampling supplies, which will be labeled "ARS-Special Project." If supplies do not arrive within one week of the scheduled dioxin survey sample date for the establishment, IPP are to request sampling supplies.

B. To request sampling supplies via PHIS, IPP are to right-click a scheduled laboratory sampling task on the Task Calendar, then select "Order Supplies" from the drop-down menu.

C. If unable to request supplies via PHIS or supplies listed below are damaged or missing, IPP are to contact FSIS Midwestern Laboratory (MWL) via Outlook using the following email address:

SamplingSupplies-MidwesternLab@usda.gov

D. IPP are to include the establishment name and number, IPP name and phone number and the project code, "ARS Special Project," in the request.

E. The shipping container will contain the following supplies:

1. FSIS Laboratory Sample Container Seal (FSIS Form 7355-2A/2B);
2. Absorbent pad/paper towel;
3. Gel pack;
4. Laboratory gloves;
5. Aluminum foil;
6. Glass jar(s) with Teflon-coated lid(s) (fat/liver sample container);
7. Bubble wrap to protect the glass jar(s);
8. Rubber bands;
9. 10"x12" zipper lock plastic bag for shipment of glass jar containing fat/liver sample(s);
10. Plastic sleeve for sample form; and
11. FedEx Shipping Label

F. If the sampling task has not been scheduled, and the slaughter class designated for sampling is not being slaughtered during the sample collection window, IPP are to delete the task from the task list and select the appropriate reason for deleting (Figure 1). All sampling tasks will be deleted from the task list, as instructed in [FSIS Directive 13,000.2](#).

Figure 1: Delete a sampling task.

Cancel Lab Sampling Task

Select an option

Delete this task from the Task List

Reason:*:

Select

- Select
- Requested sample unavailable during sampling timeframe
- Requested sample/product never slaughtered/produced
- Not collected for miscellaneous reasons
- Plant closed/no kill
- FedEx did not pickup sample
- Inspection withdrawn
- Insufficient time to collect sample
- Inspection suspended officially

G. If the sampling task has been scheduled on the task calendar but cannot be completed within the sample collection window, IPP are to cancel the sampling task (Figure 2), as instructed in [FSIS Directive 13.000.2](#). When a sampling task is cancelled, the task returns to the task list, and it can be rescheduled at a different time.

Figure 2: Cancel a sampling task.

Cancel Lab Sampling Task

Select a option:

Cancel this task and return it to the Task List

Reschedule this task

Select Reason:

Requested sample unavailable during sampling timef

- Requested sample unavailable during sampling timeframe
- Requested sample/product never slaughtered/produced
- Not collected for miscellaneous reasons
- Plant closed/no kill
- FedEx did not pickup sample
- Inspection withdrawn
- Insufficient time to collect sample
- Inspection suspended officially
- Other

H. IPP are to return any unused shipping containers and sampling supplies for this project, including the ARS Laboratory FedEx shipping label, to the MWL. Ground shipping labels to return sampling supplies can be requested via email to the MWL, as described in [Section VI.C](#). Do not use the shipping labels sent with the sampling supplies to return unused supplies.

VII. COLLECTING THE SAMPLE

A. When collecting the fat sample, IPP are to prevent contamination of the aluminum foil, glass sampling jar, and sample collection equipment, as that may affect the test results.

1. IPP are **not** to use paper towels and are **not** to wipe gloved hands or knife with paper towels. Paper towels may be contaminated with dioxin and polychlorinated biphenyls (PCBs). Low levels of dioxin are often present in the environment.
2. IPP are to transfer the tissue sample directly from the carcass to the aluminum foil provided and transport the specimen to an acceptable table in the establishment to place it in the glass jar provided and close the jar immediately.
3. IPP will place the specimen in the glass sampling jar provided. Close the jar immediately. IPP are to use separate glass sampling jars for fat and liver samples. Do not put liver and fat samples in the same glass sampling jar. IPP are to exercise caution to ensure that the specimen does not become contaminated during this process.
4. IPP are **not** to open the glass sampling jar until they are ready to transfer the specimen (fat or liver) to the glass sampling jar.

NOTE: Do not use plastic or paper to transfer the specimen. IPP are only to use the aluminum foil provided in the sampling kit to transfer the specimen.

B. IPP are to randomly select the animal for sampling from those that have passed ante-mortem inspection and appear healthy. IPP are to collect the sample(s) at a point before the final carcass wash. To collect the sample, IPP are to:

1. Affix the barcoded label to the glass sample jar;
2. Wash and sanitize hands and knife before collecting samples;
3. Don the gloves provided with the sampling supplies using [IPP Help - Gloving Technique](#).
4. Collect the sample for the assigned species:
 - a. **Beef:** Collect a 0.5 (one-half) pound sample of back fat. If the carcass selected does not contain 0.5 (one-half) pound of back fat, randomly select another carcass. If liver is requested, collect a 0.5 (one-half) pound sample of liver from the same carcass from which the fat sample is collected.
 - b. **Pork:** Collect a 0.5 (one-half) pound sample of subcutaneous belly fat. Do not include mammary tissue.
5. Place the fat or liver sample on the provided aluminum foil and transfer the specimen to the individual jars and close the lid immediately. Be sure that the lid is tightly seated to the jar. Use the bubble wrap provided to protect the glass jar (wrapped around jar and fastened with rubber bands).
6. Place the closed glass sample jar containing the fat or liver sample that has been

wrapped with the bubble wrap in the freezer and freeze contents thoroughly for a minimum of 8 hours. Place all the gel packs provided with sample supplies in the freezer; and

NOTE: The sample must be shipped frozen to the laboratory.

7. Maintain sample security during collection, freezing, and shipping.

VIII. HOW TO COMPLETE THE SAMPLING TASK AND SHIP THE SAMPLE

A. IPP are to follow the instruction provided in [FSIS Directive 13.000.2](#) for completing sampling tasks in PHIS and [FSIS Directive 7.355.1](#) on the use of sample seals (FSIS Form 7355-2A/2B) to maintain sample security and identification.

B. IPP are to obtain all animal identification and traceback information from the establishment and enter it into PHIS when completing the sampling task. IPP are to record the name and address of the producer and all forms of identification, including back tags, ear tags, brands, tattoos, and other forms of identification.

C. Following freezing of the sample, IPP are to ship the sample as follows:

1. Remove gel pack and shipping container from the freezer. Place the absorbent pad, cardboard separator, and gel pack in the shipping container (in the order described). Refer to [IPP Help – Handling and Packaging](#) for more information;
2. Remove the sample jar from the freezer. Remove the bubble wrap, apply the barcoded label to the glass jar and rewrap the glass jar with the bubble wrap. Ensure that the sample jar and printed form have a barcoded label affixed, using instructions provided in [FSIS Directive 7.355.1](#). Do not remove the sample from the freezer until the sample is ready to be packed and shipped;
3. Place the completed form in the plastic sleeve provided;
4. Test the jar lid to assure it is securely closed. Place the wrapped jar and sample form in the 10"x 12" zipper lock bag and seal the zipper closure. Apply the barcoded Sample Identification Label (FSIS Form 7355-2B) on the zipper lock bag;

NOTE: If an establishment is assigned a fat and liver sample for the same cattle slaughter class (e.g., DIOX_HF_FL) during the same collection window, IPP are to use a single shipping container to ship both the fat and liver samples to the USDA ARS lab.

5. Place the jar upright on top of the frozen gel pack. Place the foam plug in the shipping container and press it down into the container as deeply as possible to secure the sample;
6. Complete and sign the FSIS Laboratory Sample Seal (FSIS Form 7355-2A) and apply to the shipping container, using the instructions provided in [FSIS Directive 7.355.1](#); and
7. Samples collected Monday through Thursday can be sent to the lab via overnight FedEx courier to ARS Biosciences Research Laboratory in Fargo, ND, using the FedEx shipping label provided. Samples collected on Fridays are to be held frozen under FSIS control and shipped on Monday. Samples are not to be shipped on Friday, Saturday, or the day before a federal holiday. The shipping address for the laboratory is:

Sara Lupton
USDA-ARS-Biosciences Research Lab
1605 Albrecht Blvd
Fargo, ND 58102-2765
Phone: 701-239-1236

IX. SAMPLE RESULTS REPORTING

Sample results for this project will not be posted in PHIS. Upon completion of the FY 2024 Dioxin Survey, FSIS will summarize and publish the survey results as an official report that will be accessible on the FSIS website. The report will present a summary of findings on a national basis. Individual establishment results will not be published.

X. DATA ANALYSIS

ARS and FSIS will analyze the data collected in the nationwide FY 2024 Dioxin Survey to continue to monitor dioxin levels in animal fats and evaluate trends in dioxin levels in livestock. These data will be used to detect and identify possible sources of dioxin in the food supply and to determine whether regulatory actions by FDA and EPA are warranted.

XI. QUESTIONS

Refer questions regarding this notice to your supervisor or as needed to the Office of Policy and Program Development through [askFSIS](#) or by telephone at 1-800-233-3935. When submitting a question, complete the [web form](#) and select **Sampling** as the Inquiry Type.

NOTE: Refer to [FSIS Directive 5.620.1](#), *Using askFSIS*, for additional information on submitting questions.



sAssistant Administrator
Office of Policy and Program Development

Attachment 1

Information for Establishments on the Fiscal Year (FY) 2024 Dioxin Survey

- The FY 2023 Dioxin Survey began on November 1, 2023 as a Tier 2 project under the U.S. National Residue Program to gather information on dioxin levels in U.S. beef and pork products. Fat and liver samples will be collected in federally inspected establishments and the survey data will be used to determine if dioxin levels in beef and pork remain low and if further reduction is possible.
- This study will include steers, heifers, and market swine. Samples will be taken at the end of the production line, just prior to the final rinse. Back fat samples will be collected from steers and heifers; liver samples will be collected from some steers and heifers. Subcutaneous belly fat will be collected from market hogs.
- IPP will collect and record all animal identification information in PHIS.
- Samples will be packaged and shipped to the Agricultural Research Service (ARS) laboratory in Fargo, ND, for analysis. In the event of a test result significantly different from background dioxin levels, FDA and EPA will seek additional information about the sample and about the animal from which that sample was taken.
- FSIS will not report individual sample test results. Establishments are not required to hold product pending laboratory results for samples collected in this survey. ARS will report analytical findings to FSIS approximately four to six weeks after a sample is taken. If there is reason for additional follow up or investigation, FSIS will notify the establishment within approximately six weeks from the time an initial sample was collected.
- In the event of a very high dioxin test result or an unusual finding, FSIS will conduct additional investigation and consider other actions to identify possible sources of dioxin entering the food chain. If sources can be identified, FSIS will take steps to see that further dioxin inputs into the food supply are stopped.
- The survey results will be presented in a publicly available final report summarizing the survey findings and characterizing the general dioxin levels in U.S. livestock products. Individual establishments will not be identified, and all participants will receive a copy of the final report.
- If you have questions about the survey, please refer questions to the Office of Policy and Program Development by phone at 1-800-233-3935 or through [askFSIS](#). When submitting a question, complete the [web form](#) and select **Sampling** as the Inquiry Type.