

Producer Instructions for Completing the NAHMS Bison 2022 Survey

This document provides some background information that might be useful as you complete the questionnaire. Please keep in mind that you can choose to complete the questionnaire online or on the telephone with an interviewer from the National Agricultural Statistics Service (NASS).

You might find it helpful to have your records handy. The estimated average time to complete the questionnaire is 40 minutes.

Thank you for participating and for your support of our programs and U.S. agriculture. If you have any questions, please feel free to contact NASS Customer Service at 1-888-424-7828.

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A. Overview of the Questionnaire

The questionnaire is divided into 10 sections, which are briefly described below.

Section 1—Inventory

This section collects information on the numbers of bison present on the operation on July 1, 2022, and the sexes and ages of those animals. Additional questions in this section refer to the time period of July 1, 2021, through June 30, 2022. These questions collect information on the addition of bison to the operation's herd, the removal of bison from the operation's herd, use and reasons for use of mobile slaughter units, and the numbers and causes of natural deaths or euthanasia of bison.

Section 2—Operation Management

In this section we ask about characteristics of the operation. Questions pertain to all reasons and the primary reason for keeping bison, the history and plans for the operation, records kept regarding operation management, and facilities for handling and restraining bison. Two questions collect information on the types and methods of animal identification used on the operation.

Section 3—Grazing and Pasture Management

This section captures information on practices related to grazing and pasture management, which play a vital role in bison health. The questions ask about how long bison are on pasture, how the animals are managed while on pasture (such as stocking rate and supplementation provided), how often bison are handled and why while on pasture, and how the pastures are managed to promote forage growth.

Section 4—Biosecurity

This section contains questions about biosecurity measures used on the operation. Questions focus upon the risk of disease introduction from farmed or wild animals, protocols for bison brought onto or leaving and returning to the

operation, commingling and isolation protocols, any use of shared equipment, and visitors to the operation. We recognize that the question on types of visitors to the operation, whether they have contact with the bison, and the mostly likely distance they traveled to reach the operation is asking for a lot of information that might be difficult to enumerate or that you might not know. Please answer what you can, using your best estimates if necessary, because all information will be useful for emergency preparedness.

Section 5—Reproduction

This section asks basic questions related to reproduction management, such as reproductive techniques, breeding practices, calf survival for heifers and cows, weaning practices, and bases for selecting new breeding bison.

Section 6—Diseases, Parasites, and Health Management

This section asks about your familiarity with diseases found in bison and operation-level deworming practices, fly-control methods, vaccination practices, veterinarian use, antibiotic use, and health problems and death loss. There are also questions about abnormally high death loss, which is defined as a level of death loss in your herd more than twice what you'd normally expect for your herd.

Section 7—Disease Testing Practices

The focus of this section is to learn more about disease testing practices related to tuberculosis (TB) and brucellosis. There is also a general question about concerns with any issues and challenges related to testing the operation's bison for diseases.

Section 8—Bison Shipments and Movements

This section asks specific questions about the sources, destinations, numbers, and distances of shipments of bison onto and off of the operation. All questions refer to the time period of July 1, 2021, through June 30, 2022. We recognize that this section is asking for a lot of information that may be difficult to find in the operation's records, or in some cases that you may not know. Please answer what you can as all information will be useful for emergency preparedness.

Before answering questions in this section, you might want to refer to Questions 5 and 8 in Section 1: Inventory. Responses to those questions may serve as a starting point to answer questions in Section 8. Of note, Section 8 asks about shipments of all bison regardless of sex or age class.

Section 9—Associations and Information Sources

This short section asks about your membership in bison or other agricultural associations or organizations, as well as your view of various sources for information on bison health.

Section 10—Conclusion

This final section of the questionnaire collects some basic background information about completion of the questionnaire and provides you with more information about the available biological testing options, as well as a chance to sign up to participate in desired testing options. As part of this section, producers who choose to participate in biological sampling will consent to have their contact information turned over to NAHMS. *All personal information and data will be confidential. Participation in the biological sampling options is voluntary.*

B. Important Information for Completing the Questionnaire

B.1 Time Frames referenced in Questions

Many of the questions refer to the one-year time frame of July 1, 2021, through June 30, 2022. Defining a specific time frame can make it easier to answer questions by restricting the time span in consideration and making it possible to generalize or average out responses for the referenced period. It can also make data more comparable across operations.

Questions without a specific timeframe are asking about the operation's usual or typical practices. A couple questions ask about the specific bison inventory on the operation on July 1, 2022.

B.2 Helpful Definitions

Abnormally high death loss. Used for Questions 21 through 24 in Section 6, the term “abnormally high death loss” is defined as a level of death loss in your herd more than twice what you would normally expect for your herd.

Animal identification. Animal identification is a process of marking animals in some way so that they can be recognized as members of a herd and/or as individuals. It is done for a variety of reasons, including verification of ownership; record-keeping for health and management practices, such as vaccination, deworming, and reproductive success; use in biosecurity practices; and tracing of animals for research, disease response, or other agricultural purposes.

- Herd identification uses a tag, brand, or other marker that indicates a bison is a member of your operation's herd.
- Individual identification uses a unique identifier for each animal that enables it to be distinguished from all other bison in the herd.

Biosecurity. Biosecurity refers to a set of practices used to prevent introduction of infectious diseases into the herd and to minimize further transmission among animals, if a disease is introduced. Biosecurity practices reduce the risk of infectious diseases being carried onto the property by people, animals, equipment, or vehicles and are considered to be an essential part of sustainable agricultural development. Examples of biosecurity include restricting visitors from physical contact with bison, quarantining new bison before they are commingled with the operation's herd, and requiring vehicles that come from off the site to park away from the herd.

Contact. Having contact with operation bison in the questionnaire refers to touching/handling live bison and/or walking through areas or facilities where bison are or have recently been kept.

Heifer. A heifer is a young female bison that is one year of age or older and has not yet had a calf.

National Agricultural Statistics Service (NASS). A USDA agency responsible for providing timely, accurate, and useful statistics in service to U.S. agriculture. NASS conducts the Census of Agriculture every five years, providing consistent, comparable, and detailed agricultural data for every county in the country. From its surveys, NASS maintains the list of U.S. bison producers that was used for the NAHMS Bison 2022 Study.

National Animal Health Monitoring System (NAHMS). NAHMS is a USDA program unit that conducts national studies on the health and health management of U.S. domestic livestock and poultry populations. The USDA initiated NAHMS in 1983 to collect, analyze, and disseminate data on animal health, management, and productivity across the United States. Studies are designed to meet the information needs of the industries associated with livestock commodities, as identified by people within those industries. Bison 2022 is NAHMS' second national study of bison health and management.

Necropsy. A necropsy, or autopsy, is an examination of an animal after its death to determine the cause of death. It will typically involve dissection (including collection of samples for laboratory analysis), observation, interpretation, and documentation to evaluate any disease or injury that may be present.

Operation. For the purposes of this study, an “operation” is defined as a person or entity raising one or more bison that are under common ownership (public or private) and kept on one or more locations for commercial or conservation purposes. This includes conservation herds. For example, an operation might consist of one location for commercial

bison cow-calf production and another location for a bison finishing operation. **Unless specifically stated otherwise, please answer for the entire operation.**

- INCLUDE all bison raised on this operation, whether owned by your operation or raised under contract for another owner.
- EXCLUDE bison raised on another person's or entity's operation, even if you own the bison.

Shipment. A shipment is a group of bison (one or more) that are moved together on the same day, regardless of the number of vehicles required to move them.

C. Questions of Note

This section discusses a few questions to help respondents tackle situations that could pose challenges in answering the questions. Please feel free to call Customer Service representatives of the National Agricultural Statistics Service at 1-888-424-7828 if you have questions about completing the questionnaire.

Section 1, question 3. Animals born into the herd should be included in the "Bison less than 1 year old" category.

Section 1, question 5. This question asks about bison joining the operation's herd from **external** sources. As noted previously, bison born into the herd should be included in the "Bison less than 1 year old" category for question 3. Question 5 then asks about bison brought onto the operation from outside sources.

Section 2, questions 6 and 7. These questions ask for either number of bison or percentages; please use whichever unit is easier for you.

Please note that percentages for each column in question 7 probably won't total to 100% because a single animal might have multiple forms of identification or no identification. For example, one bison cow might have an official ear tag indicating brucellosis vaccination, a plastic ear tag with a unique number for the cow within the operation's herd, and an electronic ear tag. While we are glad to learn about the types of physical characteristics that enable you to identify individual bison (such as unique coloration or a scar), we are most interested in learning about types of identification specifically applied to the bison so that anyone can identify them throughout their lifetime. If you have bison 1 year and older that do not have some sort of applied herd or individual identification, please count them in Item 6.e.

Section 4, question 15. For the following question, please answer with your best **estimates** to help us describe general visitor and bison contact patterns on operations. We realize this question will be difficult for some operations. Please do your best to provide informed estimates. The data are intended to help provide information and guidelines that could reduce the impact of a disease outbreak on U.S. bison and cattle operations.

Count a group of people visiting as a single visit. For example, a busload of 30 school students equals one visit. As noted above in the Helpful Definitions section, "contact" here refers to touching/handling live bison and/or walking through areas or facilities where bison are or have recently been kept.

A "non-business visitor" is not an employee.

If someone who visits could fall into more than one category of visitor type, please include them in the visitor type that applies to the reason for that specific visit. For example, what if a friend who is a veterinarian visited the operation during the reference period? Answer: If the friend visited the operation strictly as a friend and not in a professional capacity as a veterinarian, count the visit(s) under Item 15.o, "Family, neighbors, friends, etc." If the Producer asked the veterinarian to check out a bison for a specific reason, count the visit(s) under Item 15.a, "Private or government veterinarian or animal health worker."

Section 5, questions 5 and 6. Example scenario for question 5: All of your heifers produced healthy calves in 2022, and so far all calves are looking good and heading for weaning. One of the 50 cows had a stillborn calf, but all the other calves are thriving.

For question 6, please estimate your total annual percentage of bred females that bore a calf that survived until weaning. Please be sure to note the total number of years bison have been bred on your operation at the bottom of question 6!

5. For this operation's breeding females (heifers and cows) that were bred in 2021, what percentage had a calf born in 2022 that survived (or likely will survive) until weaning? *[Leave blank if none of a category bred.]*

% heifers	% cows
100 b5012	98 b5013

6. For as long as this operation has been breeding bison, what is the average annual percentage of bred females (heifers and cows) that bore a calf that survived until weaning? *[Leave blank if none of a category bred.]*
[Total number of years bison have been bred on operation.....b5016 27 years]

% heifers	% cows
95 b5014	97 b5015

Section 6, question 5. For this question, base the average cost per treatment per bison only on the cost of the product. Do not include costs associated with administration of the dewormers, such as gathering animals and working them in the chute or veterinary visit.

Section 8, Questions 1 and 2. A **shipment** is a group of bison (one or more) that are moved together on the same day, regardless of the number of vehicles required to move them.

If no shipments occurred from a given source, enter zero to indicate no bison were shipped on to the operation from that source. If only 1 shipment came from a particular source, then enter the one-way distance traveled as the most likely distance.

For the average number of bison in a shipment, count all bison regardless of age.

D. Information on the Biological Sampling Options

By completing this questionnaire, you are eligible to participate in biological testing of your bison for parasites and enteric microbes and of your pasture forage for nutritional value, at no cost to you. The biological testing is entirely voluntary. Results will be returned to you confidentially.

Section 10 of the questionnaire provides a way for you to sign up for the testing options you choose.

If you choose to participate in any testing, USDA-NASS staff will provide your contact information to USDA-APHIS-NAHMS, which is a non-regulatory program. NAHMS will then ship you detailed instructions and materials for collecting and shipping samples from your bison/operation. Data collected from the biologics phase of the study will be confidential, using the same strong legal protections afforded this collection, and no name or contact information will be associated with the data. Data are presented only in aggregated summaries.

The sampling options available are listed below. You are invited to participate in none, any, or all of the options, but we hope you'll choose all! The data will provide you with important information for your operation and will also provide valuable information for the industry.

- a. Fecal parasite testing (Fecal Samples)—pre-deworming (Baseline)
- b. Fecal parasite testing (Fecal Samples)—post-deworming
- c. Enteric microbe testing (Fecal Samples)
- d. Pasture forage testing (Pasture Forage Samples)

Please see the Timeline/Benefits sheet and the Producer Informed Consent Form for more information; these documents can be found in your survey packet or accessed at <https://www.aphis.usda.gov/nahms>.

E. Sources of Help in Completing the Questionnaire

If you have questions while completing your questionnaire, please call Customer Service representatives of the National Agricultural Statistics Service at 1-888-424-7828.

Please remember that if you'd rather work through the questionnaire with an interviewer, you can complete the questionnaire using the computer-assisted telephone interview with an enumerator from the National Agricultural Statistics Service. A representative from NASS will call you if you haven't completed a questionnaire by early August, or you can call the number above to request an interview.

Thank you very much for completing the NAHMS Bison 2022 Study Survey!

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