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OMB Approved
0579-0420
EXP: XX/XXXX

**UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION
SERVICE
VETERINARY SERVICES
NATIONAL ANIMAL HEALTH MONITORING SYSTEM
2150 CENTRE AVE, BLDG B
FORT COLLINS, CO 80526**

**NAHMS
BISON 2022
STUDY SURVEY**

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 and Statistical Efficiency Act of 2018, Title III of Pub. L. No. 115-435, codified in 44 U.S.C. Ch. 35 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. Response is **voluntary**.

If you would like to have your bison tested for internal parasites or enteric microbes and/or have your pasture forage tested for nutritional value, please sign up for this free testing at the end of this questionnaire. Thank you!

Section 1. Inventory

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.

1. From July 1, 2021, through June 30, 2022, were any bison present on this operation, regardless of ownership?.....b1001 o₁ Yes—
2. From July 1, 2021, through June 30, 2022, did this operation have bison at more than one location?..... b1002 o₁ Yes
3. On July 1, 2022, how many bison were on this operation, by sex and age group? If you don't know sex of bison less than 1 year old, please enter total number of bison for the age group.

Bison	Bison more than 3 years old	Bison 1 to 3 years old	Bison less than 1 year old	Total bison on July 1, 2022
a. Females	b1003	b1006	b1009	b1012
b. Males	b1004	b1007	b1010	b1013
Total (add items 3.a and 3.b for each column)	b1005	b1008	b1011	b1014

4. From July 1, 2021, through June 30, 2022, were any bison added to this operation's herd?.....b1015 o₁ Yes—Continue o₃ No—GO TO question 7

5. From July 1, 2021, through June 30, 2022, how many bison were added to this operation's herd from the following external sources?

Source	Bison more than 3 years old	Bison 1 to 3 years old	Bison less than 1 year old
a. Private sale	b1016	b1022	b1028
b. Trade	b1017	b1023	b1029
c. Auction/sale barn	b1018	b1024	b1030
d. Dealer/broker	b1019	b1025	b1031
e. Other (specify: _____) b0120	b1020	b1026	b1032
Total (add items 5.a–5.e in each column)	b1021	b1027	b1033

6. From July 1, 2021, through June 30, 2022, did this operation import any live bison from the following?
- a. Canada..... b1034 Yes No
- b. Mexico..... b1035 Yes No
- c. Other country(-ies) (specify: _____) b0136 b1036 Yes No
7. From July 1, 2021, through June 30, 2022, did any **live** bison permanently leave this operation's herd for any reason, including those that were slaughtered on the ranch? b1037 Yes—**Continue** No—**GO TO question 9**
8. From July 1, 2021, through June 30, 2022, how many **live** bison permanently left the operation or were removed from the operation by the following methods?

Method of removal	Bison more than 3 years old	Bison 1 to 3 years old	Bison less than 1 year old
a. Slaughtered on ranch	b1038	b1050	b1062
b. Direct to off-site slaughter/packer	b1039	b1051	b1063
c. Direct to feedlot	b1040	b1052	b1064
d. Sold at auction/sale barn	b1041	b1053	b1065
e. Sold to dealer/broker	b1042	b1054	b1066
f. Private sale—for breeding stock	b1043	b1055	b1067
g. Private sale—onsite hunting	b1044	b1056	b1068
h. Private sale—for meat or other products	b1045	b1057	b1069
i. Traded or given away	b1046	b1058	b1070
j. Lost or stolen	b1047	b1059	b1071
k. Other (specify: _____) b0148	b1048	b1060	b1072
Total (add items 8.a–8.k for each column)	b1049	b1061	b1073

9. From July 1, 2021, through June 30, 2022, did this operation export any live bison or bison products to the following?
- a. Canada..... b1074 Yes No
- b. Mexico..... b1075 Yes No
- c. Other country(-ies) (specify: _____) b0176 b1076 Yes No
10. From July 1, 2021, through June 30, 2022, were mobile units used for slaughter of any bison on this operation?.....b1077 Yes—**Continue** No—**GO TO question 13**
11. What was the primary reason for using mobile slaughter units on this operation? [Check one only.] b1078
- Hunter-killed animals
- Animal welfare
- Transportation reasons
- Lack of nearby processing facility or availability
- Marketing reasons
- Other (specify _____) b0178)
12. Did the COVID-19 (SARS-CoV-2) pandemic affect this operation's use of mobile slaughter units during 2021 and 2022? [Check one only.] b1079
- Yes--Increased use of mobile slaughter
- Yes--Reduced use of mobile slaughter
- No--Maintained same use of mobile slaughter
- Other (specify: _____) b0179
13. From July 1, 2021, through June 30, 2022, did any of this operation's bison die (including by euthanasia) due to natural causes?.....b1080 Yes—**Continue** No—**GO TO section 2**

14. From July 1, 2021, through June 30, 2022, how many of this operation's bison died or were euthanized due to the following natural causes?

Cause of natural death or euthanasia	Bison more than 3 years old	Bison 1 to 3 years old	Bison less than 1 year old
a. Disease, disorder, or other health problem	b1081	b1089	b1097
b. Injury/trauma not related to predation, handling, or weather	b1082	b1090	b1098
c. Predation	b1083	b1091	b1099
d. Handling-related problem	b1084	b1092	b1100
e. Weather-related problem (e.g., lightning, flood)	b1085	b1093	b1101
f. Other (specify: _____) b0186	b1086	b1094	b1102
g. Unknown	b1087	b1095	b1103
Total (add items 14.a–14.g for each column)	b1088	b1096	b1104

Section 2. Operation Management

1. From July 1, 2021, through June 30, 2022, were bison kept on this operation for the following reasons?
 - a. Bison cow-calf production (offspring intended for meat production).....b2001 Yes No
 - b. Seedstock production (offspring intended for breeding purposes).....b2002 Yes No
 - c. Finishing on grass (bison finished on pasture/grass for slaughter).....b2003 Yes No
 - d. Backgrounding/stocking (young bison prepared for a feedlot)b2004 Yes No
 - e. Feedlot operation (bison from this or other operations being finished in feedlot for slaughter).....b2005 Yes No
 - f. Game ranch/hunting on this operation.....b2006 Yes No
 - g. Preparation/sale of byproducts (e.g., hides, skulls, horns, hair).....b2007 Yes No
 - h. Conservation.....b2008 Yes No
 - i. Hobby/pasture pet.....b2009 Yes No
 - j. Agri-tourism/eco-tourism.....b2010 Yes No
 - k. Cultural use.....b2011 Yes No
 - l. Cutting horse training.....b2012 Yes No
 - m. Other (specify: _____) b0213.....b2013 Yes No

2. Which one reason in question 1 is the **primary** reason bison were kept on this operation? [Enter one letter, a through m.].....b2014 _____ letter

3. How many years have bison been raised at this location?b2015 _____ years

4. Which of the following best describes plans for the bison herd on this operation over the next year? [Check one only.] b2016
 - Increase herd size
 - Maintain same herd size
 - Decrease herd size
 - Get out of the business (specify reason: _____) b0216

5. From July 1, 2021, though June 30, 2022, were the following records maintained (electronic or handwritten) for this operation? [NA=Not applicable.]
 - a. Purchases and sales.....b2017 Yes No NA
 - b. Breeding.....b2018 Yes No NA
 - c. Health.....b2019 Yes No
 - d. Treatment of individual bison with antibiotics.....b2020 Yes No NA
 - e. Pasture/natural resource conditions.....b2021 Yes No NA
 - f. Other (specify: _____) b0222.....b2022 Yes No

6. Please answer the following questions about formally identifying your bison. Answer for the total bison inventory on July 1, 2022 (Section 1, Question 3), in number **OR** percentage of bison, whichever is easier for you. [Write in "NA" for Not Applicable if no bison in the age category.]

- a. As of July 1, 2022, how many or what percentage of bison **1 year or older** had a **herd identification** (something that indicates a bison is a member of your operation's herd)? b2023 _____ # OR _____ % bison
- b. As of July 1, 2022, how many or what percentage of bison **less than 1 year old** had a **herd identification** (identifies a bison as being a member of your operation's herd)? b2024 _____ # OR _____ % bison
- c. As of July 1, 2022, how many or what percentage of bison **1 year or older** had a **unique individual identification** (a unique identifier for each animal that enables it to be distinguished from all other bison in the herd)?b2025 _____ # OR _____ % bison
- d. As of July 1, 2022, how many or what percentage of bison **less than 1 year old** had a **unique individual identification** (a unique identifier for each animal that enables it to be distinguished from all other bison in the herd)?b2026 _____ # OR _____ % bison
- e. As of July 1, 2022, how many or what percentage of bison **1 year or older** did **not** have any identification (no herd identification and no unique individual identification)? b2027 _____ # OR _____ % bison

[If questions 6.c and 6.d BOTH = zero (no bison have unique individual identification) or BOTH = NA (no bison in the age category), GO TO question 8; otherwise, continue.]

7. For total bison inventory on July 1, 2022 (Section 1, Question 3), how many **OR** what percentage of this operation's bison had the following methods of individual identification?

Method of individual identification		Bison 1 year and older		Bison less than 1 year old		
		(Number OR Percent)		(Number OR Percent)		
a.	Official ear tag (e.g., for brucellosis vaccination, national uniform eartagging system)	#	%	#	%	b2028/ b2034
b.	Other metal ear tag or plastic ear tag	#	%	#	%	b2029/ b2035
c.	Electronic ear tag (radio-frequency identification [RFID])	#	%	#	%	b2030/ b2036
d.	Electronic implant/microchip	#	%	#	%	b2031/ b2037
e.	Tattoo/freeze brand	#	%	#	%	b2032/ b2038
f.	Other (specify: _____) b0233	#	%	#	%	b2033/ b2039

- 8. Does this operation have facilities for handling/restraining bison?.....b2040 o₁ Yes o₃ No
If "Yes," were these facilities designed specifically for bison?.....b2041 o₁ Yes o₃ No

Section 3. Grazing and Pasture Management

- 1. From July 1, 2021, through June 30, 2022, were any of this operation's bison on range/pasture?
o₁ Yes—**How many months were they on range/pasture during that period?** b3001/ b3002 _____ months
o₃ No—**GO TO question 7**
- 2. From July 1, 2021, through June 30, 2022, how many times did this operation round up or gather the majority of its pastured bison as a group?.....b3003 _____ # times

[If question 2 = zero, GO TO question 4; otherwise, continue.]

- 3. For the most recent time this operation rounded up or gathered the majority of its pastured bison as a group, were they gathered for the following reasons?
 - a. Tagging/identification.....b3004 o₁ Yes o₃ No
 - b. Vaccination.....b3005 o₁ Yes o₃ No
 - c. Deworming.....b3006 o₁ Yes o₃ No
 - d. Pregnancy checking.....b3007 o₁ Yes o₃ No
 - e. Disease testing.....b3008 o₁ Yes o₃ No
 - f. Other veterinary need (e.g., physical exam, treatment for illness).....b3009 o₁ Yes o₃ No
 - g. Weaning.....b3010 o₁ Yes o₃ No
 - h. Shipping (e.g., to slaughter, pasture).....b3011 o₁ Yes o₃ No
 - i. Other (specify: _____) b0312.....b3012 o₁ Yes o₃ No

4. From July 1, 2021, through June 30, 2022, what was the average stocking rate of bison on range/pasture (number of acres per bison animal unit) for this operation?....b3013 _____ acres/animal unit
5. What is this operation's primary grazing system? [Check one only.] b3014
 o₁ Rotational (often based on set number of days in each paddock)
 o₂ Continuous
 o₃ Holistic (requires some site-based evaluation and decision making to assess regeneration and determine schedule for moving animals among paddocks)
 o₄ Other (specify: _____) b0314
6. From July 1, 2021, through June 30, 2022, were this operation's bison ever provided the following while on range/pasture?
 a. Hay/roughage b3015 o₁ Yes o₃ No
 b. Mineral supplements..... b3016 o₁ Yes o₃ No
 c. Vitamin supplements..... b3017 o₁ Yes o₃ No
 d. Energy/concentrates (e.g., grain) b3018 o₁ Yes o₃ No
7. Does this operation use the following production practices for its bison?
 a. Certified organic (certified to USDA organic standards)..... b3019 o₁ Yes o₃ No
 b. Grass fed (bison raised to meet USDA or American Grassfed Association [AGA] standards)..... b3020 o₁ Yes o₃ No
 c. Raised without antibiotics..... b3021 o₁ Yes o₃ No
 d. Raised without feeds containing genetically modified organisms (GMOs)..... b3022 o₁ Yes o₃ No
 e. Certified for animal welfare, such as Global Animal Partnership (GAP) certified, Certified Humane®, American Humane Certified™ b3023 o₁ Yes o₃ No
8. During the previous 5 years, did this operation ever conduct the following types of testing?
 a. Forage testing b3024 o₁ Yes o₃ No
 b. Soil testing..... b3025 o₁ Yes o₃ No
 c. Water testing..... b3026 o₁ Yes o₃ No

Section 4. Biosecurity

1. From July 1, 2021, through June 30, 2022, were the following farmed animals ever present on **this operation**? If "Yes," could they have had physical contact with this operation's bison?

Farmed animal	On operation?	Contact with bison?	
	If Yes, answer next column. →		
a. Cattle (beef or dairy)	o ₁ Yes o ₃ No	o ₁ Yes o ₃ No	b4001/ b4009
b. Sheep or lambs	o ₁ Yes o ₃ No	o ₁ Yes o ₃ No	b4002/ b4010
c. Goats	o ₁ Yes o ₃ No	o ₁ Yes o ₃ No	b4003/ b4011
d. Horses, donkeys, etc.	o ₁ Yes o ₃ No	o ₁ Yes o ₃ No	b4004/ b4012
e. Swine	o ₁ Yes o ₃ No	o ₁ Yes o ₃ No	b4005/ b4013
f. Poultry	o ₁ Yes o ₃ No	o ₁ Yes o ₃ No	b4006/ b4014
g. Deer, elk, or other cervids	o ₁ Yes o ₃ No	o ₁ Yes o ₃ No	b4007/ b4015
h. Other (specify: _____) b0408	o ₁ Yes o ₃ No	o ₁ Yes o ₃ No	b4008/ b4016

2. From July 1, 2021, through June 30, 2022, were any of the following **farmed** animals belonging to **nearby operations** ever located within **1 mile** of this operation's bison? If "Yes," could they have had fence-line contact with this operation's bison?

Neighboring farmed animal	Within 1 mile of operation's bison?	Fence-line contact with operation's bison?	
	If Yes, answer next column. →		
a. Bison	o ₁ Yes o ₂ Don't know o ₃ No	o ₁ Yes o ₃ No	b4017/ b4021
b. Cattle (beef or dairy)	o ₁ Yes o ₂ Don't know o ₃ No	o ₁ Yes o ₃ No	b4018/ b4022
c. Sheep or lambs	o ₁ Yes o ₂ Don't know o ₃ No	o ₁ Yes o ₃ No	b4019/ b4023

d. Deer, elk, or other cervids	<input type="radio"/> Yes <input type="radio"/> Don't know <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
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b4020/ b4024

3. From July 1, 2021, through June 30, 2022, were the following **wild** animals ever seen inside this operation's perimeter fence or just outside the perimeter fence?

Wild animal	ANSWER BOTH COLUMNS	
	Inside perimeter fence?	Just outside perimeter fence?
a. Bison	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
b. Pronghorn (antelope)	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
c. Sheep (e.g., bighorn)	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
d. Deer, elk, or other cervids	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
e. Feral swine or wild boars	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
f. Other (specify: _____) b0430	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No

b4025/ b4031

b4026/ b4032

b4027/ b4033

b4028/ b4034

b4029/ b4035

b4030/ b4036

4. From July 1, 2021, through June 30, 2022, did this operation take any actions to control **wild** animals or prevent them from accessing operation property or resources?.....b4037 Yes No

5. From July 1, 2021, through June 30, 2022, were any new bison brought on to this operation (temporarily or permanently), or did any bison leave the operation and return (such as being bred or grazed off-site, taken to a show and returned, etc.)? b4038 Yes—**Continue** No—**GO TO question 12**

6. From July 1, 2021, through June 30, 2022, were any male or female bison temporarily **brought in** from other herds for breeding purposes?
 a. Male bison.....b4039 Yes No
 b. Female bison.....b4040 Yes No

7. From July 1, 2021, through June 30, 2022, were any male or female bison from this operation **sent** to other herds for breeding purposes and subsequently **returned** to this operation?
 a. Male bison.....b4041 Yes No NA—No male bison on site
 b. Female bison.....b4042 Yes No NA—No female bison on site

8. From July 1, 2021, through June 30, 2022, were any bison from this operation **sent** off the operation for grazing and subsequently **returned** to this operation?..b4043 Yes—**Continue** No—**GO TO question 10**

9. Were bison sent off the operation for grazing commingled on pasture with the following farmed animals?
 a. Bison from other operations.....b4044 Yes Don't know No
 b. Cattle from other operations.....b4045 Yes Don't know No
 c. Sheep or lambs from other operations.....b4046 Yes Don't know No

10. From July 1, 2021, through June 30, 2022, how often were the following types of bison isolated (kept physically separated) before being commingled with this operation's bison? [NA=Not applicable; did not have that type of bison on the operation in the time frame.]
 a. Bison returning to the operation.....b4047 Always Sometimes Never NA
 b. New bison joining the operation permanently or temporarily b4048 Always Sometimes Never NA

[If questions 10.a and 10.b BOTH = Never or NA, GO TO question 12; otherwise, continue.]

11. How many days were these types of bison typically isolated? [NA=Not applicable; did not have that type of bison on the operation in the time frame.]
 a. Bison returning to the operationb4049 _____ # days NA
 b. New bison joining the operation permanently or temporarily.....b4050 _____ # days NA

12. From July 1, 2021, through June 30, 2022, did this operation ever transport bison in trucks and/or trailers shared with other livestock operations?b4051 Yes No

13. From July 1, 2021, through June 30, 2022, did this operation ever share any equipment other than trucks and trailers—such as tractors, chutes, feeding equipment, manure spreaders—with other livestock operations?.....b4052 Yes—**Continue** No—**GO TO question 15**

DRAFT

14. Was shared equipment (other than trucks or trailers) cleaned prior to use? b4053.....0₁ Yes 0₂ DK 0₃ No
If "Yes," which of the following best describes the cleaning procedures? [Check only one.] b4054
- o₁ Wash equipment with water or steam only
 - o₂ Chemically disinfect only
 - o₃ Wash equipment and chemically disinfect
 - o₄ Other (specify: _____) b0454

15. For the following question, please answer with your best **estimates** to help us describe general visitor and bison contact patterns on operations. *Count a group of people visiting at the same time as a single visit.*
 For visitor types with more than zero visits, please complete the next two columns.

Type of visitor from July 1, 2021, though June 30, 2022	Number of visits per month or year by this visitor type to your operation (best estimate)		Did the visitors typically have contact with operation bison? (touch/handle live bison or walk through areas where bison are or have recently been kept)	What is the most likely one-way distance traveled to your operation by this visitor type? (miles)	
	Month	OR			Year
	If any visits, answer next two columns. →				
Business Visitors					
a. Private or government veterinarian or animal health worker			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4055/b4072/ b4089/b4106	
b. Extension agent			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4056/b4073/ b4090/b4107	
c. Nutritionist or feed company consultant			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4057/b4074/ b4091/b4108	
d. Other consultant(s) (specify: _____) b0458				b4058/b4075/ b4092/b4109	
e. Bison trader, order buyer, or dealer/broker			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4059/b4076/ b4093/b4110	
f. Video auction representative			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4060/b4077/ b4094/b4111	
g. Livestock hauler			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4061/b4078/ b4095/b4112	
h. Feed (hay or grain) hauler			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4062/b4079/ b4096/b4113	
i. Manure hauler			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4063/b4080/ b4097/b4114	
j. Mobile slaughter team			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4064/b4081/ b4098/b4115	
k. Renderer			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4065/b4082/ b4099/b4116	
l. Consumer seeking bison products— e.g., meat, hides, skulls			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4066/b4083/ b4100/b4117	
m. Consumer seeking activity—e.g., agri- or eco-tourism, game ranch/hunting			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4067/b4084/ b4101/b4118	
n. School and other field trip visitors			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4068/b4085/ b4102/b4119	
Non-business Visitors					
o. Family, neighbors, friends, etc.			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4069/b4086/ b4103/b4120	
p. Other types of visitors not yet listed (home maintenance personnel, delivery, general services personnel, utility personnel, etc.)			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4070/b4087/ b4104/b4121	
q. Employees			<input type="checkbox"/> Yes <input type="checkbox"/> No	b4071/b4088/ b4105/b4122	

16. For business visitors, non-business visitors, and employees, what number OR percentage of visits counted in Question 15 occurred in each season? If no visits occurred in a season, enter zero. The values for the four seasons should add up to 100% for each visitor class (unless there were zero visitors in the class).

Season	Business visitors		Non-business visitors		Employees	
	(Number OR Percent)	(Number OR Percent)	(Number OR Percent)	(Number OR Percent)	(Number OR Percent)	(Number OR Percent)
a. Winter (December, January, February)	#	%	#	%	#	%
b. Spring (March, April, May)	#	%	#	%	#	%
c. Summer (June, July, August)	#	%	#	%	#	%
d. Fall (September, October, November)	#	%	#	%	#	%
Total	#	100%	#	100%	#	100%

Section 5. Reproduction

1. From July 1, 2021, through June 30, 2022, were any bison bred while on this operation?b5001 o₁ Yes—**Continue** o₃ No—**GO TO section 6**

2. Were the following practices used during the most recent breeding season for bison bred on this operation?
 - a. Natural breeding (bulls placed with cows and heifers)..... b5002 o₁ Yes o₃ No
 - b. Artificial insemination.....b5003 o₁ Yes o₃ No
 - c. Embryo transfer.....b5004 o₁ Yes o₃ No

3. Were the following reproductive techniques used for or during the most recent breeding season?
 - a. Body condition scoring..... b5005 o₁ Yes o₃ No
 - b. Bull breeding soundness exam (e.g., semen evaluation, scrotal exam)..... b5006 o₁ Yes o₃ No
 - c. Palpation for pregnancy..... b5007 o₁ Yes o₃ No
 - d. Ultrasound..... b5008 o₁ Yes o₃ No
 - e. Other (specify: _____) b0509..... b5009 o₁ Yes o₃ No

4. Were heifers bred on this operation during the most recent breeding season? Heifers are female bison that have not yet had a calf.

o₁ Yes—**At what age (months) were they first bred?**.....b5010/ b5011 _____ months

o₃ No

5. For this operation's breeding females that were bred in 2021, what percentage of heifers and cows had a calf born in 2022 that survived (or likely will survive) until weaning? *[Enter NA for Not Applicable if no bison bred in given category.]*

% heifers	% cows
b5012	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?

[Total number of years bison have been bred on operation.....b5016 years]

% heifers	% cows
b5014	b5015

7. How are calves on this operation typically weaned? *[Check one only].*

o₁ Natural weaning by mother bison..... b5017

o₂ Separation weaning / management practice

8. At what age (months) are calves on this operation typically weaned, whether naturally by the mother bison or by management practice?.....b5018 _____ months

9. Which of the following is this operation's **primary** basis for selecting new breeding bison? *[Choose one only unless multiple factors are used **equally** as the **primary** basis for selecting breeding bison; then, check all used equally.]*
 - o₁ Random selection (e.g., choosing every third group at handling time, or gate cut)
 - o₂ Size/conformation
 - o₃ Behavior/manageability
 - o₄ Genetics (DNA testing for parentage, ancestral line, genetic diversity, or cattle hybridization)
 - o₅ Other (specify: _____) b0519 b5019

Section 6. Diseases, Parasites, and Health Management

1. How familiar are you with the following diseases in bison? *[Check one box per row.]*

Disease	Never heard of it	Recognize the name, not much else	Know some basics	Fairly knowledgeable	Extremely knowledgeable	
a. Bovine tuberculosis (TB)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	b6001
b. Brucellosis	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	b6002
c. Bovine viral diarrhea (BVD)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	b6003
d. Malignant catarrhal fever (MCF)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	b6004
e. Clostridial diseases	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	b6005
f. Epizootic hemorrhagic disease (EHD)/ bluetongue	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	b6006
g. <i>Mannheimia/Pasteurella</i>	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	b6007
h. <i>Mycoplasma bovis</i>	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	b6008

2. From July 1, 2021, through June 30, 2022, how often did you or someone on your operation undertake a visual inspection of your bison for general health purposes? [Check one only.] b6009
- 1 Once a day
2 Once every few days
3 Once a week
4 Once every two weeks
5 Once a month or less often
6 Other (specify: _____) b0609

3. From July 1, 2021, through June 30, 2022, were any of this operation’s bison dewormed?b6010 o₁ Yes—**Continue** o₃ No—**GO TO question 7**

4. From July 1, 2021, through June 30, 2022, how many times were the majority of the bison on this operation dewormed?.....b6011 _____ # times

5. From July 1, 2021, through June 30, 2022, were the following dewormers used on this operation? If “Yes,” what was the average cost of the product used per bison per treatment?

Product	Product used?	Average cost?
	If Yes, answer next column. →	
a. Conventional dewormers (e.g., Ivermectin, Safeguard®, Doramectin)	o ₁ Yes o ₃ No	\$/bison/trtmt
b. Natural/alternative dewormers (e.g., diatomaceous earth, botanicals, cayenne pepper) (specify: _____)	o ₁ Yes o ₃ No	\$/bison/trtmt
c. Other dewormer (specify: _____)	o ₁ Yes o ₃ No	\$/bison/trtmt

b6012/
b6015

b6013/
b6013/
b6016

b6014/
b6014/
b6017

6. From July 1, 2021, through June 30, 2022, were dewormers ever administered on this operation by the following methods?
- a. Pour-onb6018 o₁ Yes o₃ No
b. Injectableb6019 o₁ Yes o₃ No
c. Directly into the mouth (e.g., drench, bolus, paste)b6020 o₁ Yes o₃ No
d. Feed or water additiveb6021 o₁ Yes o₃ No
e. Mineral additiveb6022 o₁ Yes o₃ No

7. From July 1, 2021, through June 30, 2022, did this operation do the following activities as part of a parasite control program?
- a. Perform laboratory (fecal) testing for intestinal parasites..... b6023 o₁ Yes o₃ No

If “Yes,” who completed the majority of the fecal tests? [Check one only.]..... b6024

1 Self or employee on the operation 4 Private laboratory
2 Private veterinarian 5 Other (specify: _____) b0624
3 State/university laboratory

- b. Rotate dewormer type.....b6025 o₁ Yes o₃ No
c. Give a combination of two or more dewormer drugs at once.....b6026 o₁ Yes o₃ No
d. Use a different dose of dewormer in bison than the labeled dose recommended for cattle..... b6027 o₁ Yes o₃ No
e. Rotate pastures.....b6028 o₁ Yes o₃ No
f. Reduce stocking densityb6029 o₁ Yes o₃ No
g. Other (specify: _____) b0630.....b6030 o₁ Yes o₃ No

8. From July 1, 2021, through June 30, 2022, were the following fly-control methods ever used on this bison operation?
- a. Diatomaceous earth (environmentally, topically, and/or orally).....b6031 o₁ Yes o₃ No
b. Other environmental fly control (e.g., sprays, foggers, strips, zappers).....b6032 o₁ Yes o₃ No
c. Topical products (e.g., dust bags, dips, sprays, backrubs).....b6033 o₁ Yes o₃ No
d. Oral products (e.g., feed-through larvicides).....b6034 o₁ Yes o₃ No
e. Treated ear tags.....b6035 o₁ Yes o₃ No
f. Biological control (e.g., predator wasps).....b6036 o₁ Yes o₃ No
g. Garlic salt.....b6037 o₁ Yes o₃ No

h. Other (specify: _____) b0638.....b6038

Yes No

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9. From July 1, 2021, through June 30, 2022, did this operation vaccinate any bison against the following diseases or pathogens? [Check box at top of column if none of that type of bison.]

Vaccinated against	ANSWER BOTH COLUMNS	
	Bison on pasture O ₄ NA—No bison on pasture	Bison in feedlot O ₄ NA—No bison in feedlot
a. Anthrax	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
b. Brucellosis	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
c. Bovine respiratory syncytial virus (BRSV)	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
d. Bovine viral diarrhea virus (BVDV)	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
e. <i>Clostridium</i> species (tetanus, blackleg; e.g., 7-way)	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
f. Infectious bovine rhinotracheitis (IBR)	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
g. Leptospirosis	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
h. <i>Mycoplasma bovis</i>	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
i. Parainfluenza 3 virus (PI3)	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
j. <i>Pasteurella</i> species	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
k. Rotavirus/coronavirus	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
l. Other disease/pathogen (specify: _____) b0650	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No

b0601/ b0602
b6039/
b6051
b6040/
b6052
b6041/
b6053
b6042/
b6054
b6043/
b6055
b6044/
b6056
b6045/
b6057
b6046/
b6058
b6047/
b6059
b6048/
b6060
b6049/
b6061
b6050/
b6062

10. From July 1, 2021, through June 30, 2022, did a veterinarian visit this operation in person concerning its bison?b0663 Yes—Continue No—GO TO question 12

11. Did the veterinarian visit the bison operation in person for the following reasons?

- a. Medical treatment of bison, for illness or injury.....b0664 Yes No
- b. Consultation, such as nutrition or reproduction advice.....b0665 Yes No
- c. Vaccination.....b0666 Yes No
- d. Health certificate issuance.....b0667 Yes No
- e. Reproductive procedure (e.g., pregnancy check).....b0668 Yes No
- f. Disease testing/sample collection.....b0669 Yes No
- g. Tranquilization/handling.....b0670 Yes No
- h. Euthanasia.....b0671 Yes No
- i. Postmortem exam/necropsy.....b0672 Yes No
- j. Employee trainingb0673 Yes No
- k. Other (specify: _____) b0674.....b0674 Yes No

12. From July 1, 2021, through June 30, 2022, were the following health problems present (suspected or confirmed) in any bison in the indicated age groups on this operation? [DK = Don't know/Not sure.]

Health problem	Bison more than 3 years old	Bison 1 to 3 years old	Bison less than 1 year old
a. Pneumonia/respiratory	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No
b. Abortion/reproductive disorder	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	not applicable
c. Arthritis/lameness	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No
d. Internal parasites	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No
e. Off feed/weight loss	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No
f. Diarrhea	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No
g. Oral erosions	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No
h. Eye lesions	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No
i. Toxin exposure	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No
j. Other (specify: _____) b0684	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> DK <input type="radio"/> No

b6075/ b6085/
b6095
b6076/ b6086
b6077/ b6087/
b6096
b6078/ b6088/
b6097
b6079/ b6089/
b6098
b6080/ b6090/
b6099
b6081/ b6091/
b6100
b6082/ b6092/
b6101
b6083/ b6093/
b6102
b6084/ b6094/
b6103

13. Were any individual bison that became sick on this operation treated with antibiotics? b6104 O₁ Yes—Continue O₃ No—GO TO question 16

14. For individual bison that were administered antibiotics to treat illness, how often was the following information noted in a record-keeping system? *[Check one box per row.]*

- | | | | | | |
|--|-------|-----------------------|--------------------------|----------------------|-------------------|
| a. Date(s) treated | b6105 | O ₁ Always | O ₂ Sometimes | O ₃ Never | O ₄ DK |
| b. Antibiotic given | b6106 | O ₁ Always | O ₂ Sometimes | O ₃ Never | O ₄ DK |
| c. Antibiotic dose, regimen, or protocol | b6107 | O ₁ Always | O ₂ Sometimes | O ₃ Never | O ₄ DK |

15. How important were the following factors in the selection of an antibiotic for treatment of a health problem? *[Check one box per row.]*

Factor	Not important	Slightly important	Moderately important	Very important	Extremely important	
a. Veterinarian recommendations	O ₁	O ₂	O ₃	O ₄	O ₅	b6108
b. Other producers' recommendations	O ₁	O ₂	O ₃	O ₄	O ₅	b6109
c. Laboratory test results	O ₁	O ₂	O ₃	O ₄	O ₅	b6110
d. Drug company advertisement	O ₁	O ₂	O ₃	O ₄	O ₅	b6111
e. Personal experience (past response rates)	O ₁	O ₂	O ₃	O ₄	O ₅	b6112
f. Cost of an antibiotic	O ₁	O ₂	O ₃	O ₄	O ₅	b6113
g. Approved route by which an antibiotic is given	O ₁	O ₂	O ₃	O ₄	O ₅	b6114
h. Duration of action (e.g., only needs to be given once)	O ₁	O ₂	O ₃	O ₄	O ₅	b6115
i. Drug withdrawal time	O ₁	O ₂	O ₃	O ₄	O ₅	b6116
j. Over the counter availability (i.e., no prescription required)	O ₁	O ₂	O ₃	O ₄	O ₅	b6117
k. Other (specify: _____)	O ₁	O ₂	O ₃	O ₄	O ₅	b6118/ b6118

16. From July 1, 2021, through June 30, 2022, did any of the operation's bison in the indicated age groups die because of the following diseases, disorders, or health problems? *[DK = Don't know.]*

Cause of death	Bison more than 3 years old	Bison 1 to 3 years old	Bison less than 1 year old	
a. <i>Mycoplasma bovis</i> (confirmed by vet or lab)	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6119/ b6130/ b6141
b. Malignant catarrhal fever (MCF)	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6120/ b6131/ b6142
c. Epizootic hemorrhagic disease (EHD)/bluetongue	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6121/ b6132/ b6143
d. Parasitism as primary cause of death	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6122/ b6133/ b6144
e. <i>Mannheimia/Pasteurella</i>	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6123/ b6134/ b6145
f. Other respiratory illness/ pneumonia	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6124/ b6135/ b6146
g. Digestive illness	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6125/ b6136/ b6147
h. Neurologic disorder	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6126/ b6137/ b6148
i. Nutritional deficiency (specify: _____)	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6127/ b6127/ b6138/ b6149
j. Other disease (specify: _____)	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6128/ b6128/ b6139/ b6150
k. Unknown health problem	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	O ₁ Yes O ₂ DK O ₃ No	b6129/ b6140/ b6151

17. From July 1, 2021, through June 30, 2022, were necropsies performed on any of this operation's bison?b6152 Yes—Continue No—GO TO question 19
18. Who performed the majority of necropsies? [Check one only.] b6153
 Owner/manager/staff
 Private veterinarian
 Federal or state veterinarian
 Other (specify: _____) b1653
19. From July 1, 2021, through June 30, 2022, which of the following was the primary method for disposing of dead bison? [Check one only.] b6154
 NA - No bison died Rendered
 Composted Incinerated
 Onsite burial No disposal method (left to nature/scavengers)
 Sent to landfill Other (specify: _____) b1654
20. Within the past **5 years**, did this operation experience one or more months of abnormally high disease-related death loss in its bison herd? **Abnormally high death loss** is defined here for questions 21 through 24 as a level of death loss in your herd more than twice what you'd normally expect for your herd.
 b6155 Yes—Continue No—GO TO section 7
21. During the **most recent period** of abnormally high death loss, did bison in the following age groups experience high death loss? [NA = Not applicable; no bison in age group.]
 a. Bison more than 3 years old..... b6156 Yes No NA
 b. Bison 1 to 3 years old..... b6157 Yes No NA
 c. Bison less than 1 year old..... b6158 Yes No NA
 d. Bison fetuses (spontaneous abortions)..... b6159 Yes No NA
22. For the **most recent period** of abnormally high death loss, were the following signs observed in bison before they died?
 a. Reluctance to move b6160 Yes No
 b. Lameness b6161 Yes No
 c. Coughing or breathing difficulty b6162 Yes No
 d. Severe weight loss b6163 Yes No
 e. Diarrhea/scours b6164 Yes No
 f. Isolation from the herd b6165 Yes No
23. For the **most recent period** of abnormally high death loss, did the operation receive confirmed diagnoses from a veterinarian or diagnostic laboratory for the following?
 a. *Mycoplasma bovis*..... b6166 Yes No
 b. Malignant catarrhal fever (MCF)..... b6167 Yes No
 c. Parasitism (internal and/or external)..... b6168 Yes No
 d. Other (specify: _____) b1669..... b6169 Yes No

Section 7. Disease Testing Practices

1. Has this operation ever had any of its bison tested for TB, either on farm or prior to purchase/arrival on farm? b7001 Yes—Continue No—GO TO question 6
2. When was the most recent TB test for any of this operation's bison? [Check one only.] b7002

 Less than 1 year ago 3 to 5 years ago
 1 to 2 years ago More than 5 years ago
 2 to 3 years ago
3. During the most recent TB test, which bison did this operation test? [Check one only.] b7003

 Entire herd Specific bison only (describe: _____) b0703
 Bison less than 1 year old only Other (specify: _____) b0704

o₃ Bison 1 year and older only

4. When this operation's bison were last tested for TB, were they tested for the following purposes?
- a. Herd accreditation for TB-free status..... b7004 o₁ Yes o₃ No
 - b. Movement requirement..... b7005 o₁ Yes o₃ No
 - c. Show or exhibition requirement..... b7006 o₁ Yes o₃ No
 - d. State requirement..... b7007 o₁ Yes o₃ No
 - e. Veterinarian (nonregulatory, private practitioner) recommendation..... b7008 o₁ Yes o₃ No
 - f. Sale requirement..... b7009 o₁ Yes o₃ No
 - g. Other (specify: _____) b0710..... b7010 o₁ Yes o₃ No
5. Is this operation's bison herd an Accredited Herd for Tuberculosis (TB) or in the process of becoming an Accredited Herd?..... b7011 o₁ Yes o₃ No
6. Has this operation ever had any of its bison tested for brucellosis, either on farm or prior to purchase/arrival on farm? b7012 o₁ o₁ Yes—Continue o₃ No—GO TO question 9
7. When this operation's bison were last tested for brucellosis, were they tested for the following purposes?
- a. Herd certification for Brucellosis-Free Herd status..... b7013 o₁ Yes o₃ No
 - b. Movement requirement..... b7014 o₁ Yes o₃ No
 - c. Show or exhibition requirement..... b7015 o₁ Yes o₃ No
 - d. State requirement..... b7016 o₁ Yes o₃ No
 - e. Veterinarian (nonregulatory, private practitioner) recommendation..... b7017 o₁ Yes o₃ No
 - f. Sale requirement..... b7018 o₁ Yes o₃ No
 - g. Other (specify: _____) b0719..... b7019 o₁ Yes o₃ No
8. Is this operation's bison herd a Certified Brucellosis-Free Herd or in the process of becoming a Certified Brucellosis-Free Herd? b7020 o₁ Yes o₃ No
9. How concerned are you with the following issues and challenges related to testing this operation's bison for diseases, such as TB?

Issues and challenges	Not concerned	Slightly concerned	Moderately concerned	Very concerned	Extremely concerned	
a. Expense of testing	O ₁	O ₂	O ₃	O ₄	O ₅	b7021
b. Stress on bison from testing	O ₁	O ₂	O ₃	O ₄	O ₅	b7022
c. Bison injuries or deaths from handling	O ₁	O ₂	O ₃	O ₄	O ₅	b7023
d. Reliability of tests (e.g., false-positive results)	O ₁	O ₂	O ₃	O ₄	O ₅	b7024
e. Amount of time required for testing	O ₁	O ₂	O ₃	O ₄	O ₅	b7025
f. Lack of facilities to restrain bison for testing	O ₁	O ₂	O ₃	O ₄	O ₅	b7026

Section 8. Bison Shipments and Movements

Note to Producer: We are requesting detailed information about bison shipments on to and off your operation to provide baseline data for disease-simulation models for emergency preparedness, including comparing disease-control strategies and estimating resources needed in the event of a disease outbreak. The information will help researchers analyze the potential spread of bison diseases and evaluate possible response measures to the diseases to help reduce the negative impacts of an outbreak.

1. From July 1, 2021, through June 30, 2022, did this operation add any bison to its herd from off-site sources? b8001 o₁ Yes—Continue o₃ No—GO TO question 4

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2. From July 1, 2021, through June 30, 2022, how many **shipments** of bison were **added to** your operation from the following sources? What were the **estimated** shortest, most likely, and longest one-way distances of those shipments? For the most likely distance, indicate the estimated distance that most shipments likely traveled from the source to your operation.

- 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. For the average number of bison in a shipment, count all bison regardless of age.
- If no shipments occurred, enter zero to indicate no bison were shipped on to the operation from that source.

Source	Number of shipments	Average number of bison per shipment	Shortest 1-way distance traveled to your operation from this type of source (miles)	Most likely 1-way distance traveled to your operation from this type of source (miles)	Longest 1-way distance traveled to your operation from this type of source (miles)	
a. Private sale						b8002/ b8008/ b8013/ b8018/ b8023
b. Trade						b8003/ b8009/ b8014/ b8019/ b8024
c. Auction/sale barn						b8004/ b8010/ b8015/ b8020/ b8025
d. Dealer/broker						b8005/ b8011/ b8016/ b8021/ b8026
e. Other (specify: _____)						b8006/ b8006/ b8012/ b8017/ b8022/ b8027
f. Total (add items 2.a–2.e)						b8007

3. Of the total shipments of bison **added to your operation** noted in Question 2.f above, what percentage of shipments occurred in each season? If no shipments occurred in a season, enter zero. The values for the four seasons should add up to 100%.

Season	Total shipments (Question 2.f)			
	Number	OR	Percent	
a. Winter (December, January, February)		#	%	b8028
b. Spring (March, April, May)		#	%	b8029
c. Summer (June, July, August)		#	%	b8030
d. Fall (September, October, November)		#	%	b8031
Total (items 3.a–3.d should sum to Item 2.f OR 100%)		#	100%	b8032

4. From July 1, 2021, through June 30, 2022, did this operation send any bison from its herd permanently to off-site destinations? b8033 O₁ Yes—Continue O₃ No—GO TO section 9

5. From July 1, 2021, through June 30, 2022, how many **shipments** of bison **left your** operation permanently for the following destinations? What were the estimated shortest, most likely, and longest one-way distances of those shipments? For the most likely distance, indicate the estimated distance that most shipments likely traveled from your operation to the destination

- 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. For the average number of bison in a shipment, count all bison regardless of age.
- If no shipments occurred, enter zero to indicate no bison were shipped off the operation to that destination.

Destination	Number of shipments	Average number of bison per shipment	Shortest one-way distance traveled from your operation to this type of destination (miles)	Most likely one-way distance traveled from your operation to this type of destination (miles)	Longest one-way distance traveled from operation to this type of destination (miles)	
a. Direct to off-site slaughter						b8034/ b8041/ b8047/ b8053/ b8059
b. Direct to feedlot						b8035/ b8042/ b8048/ b8054/ b8060
c. Direct to auction/sale barn						b8036/ b8043/ b8049/ b8055/ b8061

d. Direct to dealer/broker						b8037/ b8044/ b8050/ b8056/ b8062
e. Direct to another bison operation (for any reason)						b8038/ b8045/ b8051/ b8057/ b8063
f. Other (specify: _____)						b0839/b8039/ b8046/ b8052/ b8058/ b8064
g. Total (sum items 5.a–5.f)						b8040

6. Of the total shipments of bison **removed from your operation permanently** noted in Question 5.g above, what percentage of shipments occurred in each season? If no shipments occurred in a season, enter zero. The values for the four seasons should add up to 100%.

Season	Total shipments (Question 5.g)			
	Number	OR	Percent	
a. Winter (December, January, February)	#		%	b8065
b. Spring (March, April, May)	#		%	b8066
c. Summer (June, July, August)	#		%	b8067
d. Fall (September, October, November)	#		%	b8068
Total (items 6.a–6.d should sum to Item 5.g OR 100%)	#		100%	b8069

Section 9. Associations and Information Sources

1. Do you belong to the following bison or cattle associations?

- a. National Bison Association..... b9001 o₁ Yes o₃ No
- b. Regional, state, and/or local **bison** associations..... b9002 o₁ Yes o₃ No
- c. InterTribal Buffalo Council..... b9003 o₁ Yes o₃ No
- d. Regional, state, and/or local **Tribal** bison associations..... b9004 o₁ Yes o₃ No
- e. Canadian Bison Association..... b9005 o₁ Yes o₃ No
- f. National Cattlemen's Beef Association..... b9006 o₁ Yes o₃ No
- g. U.S. Cattlemen's Association..... b9007 o₁ Yes o₃ No
- h. R-CALF USA..... b9008 o₁ Yes o₃ No
- i. Regional, state, and/or local **cattle** associations..... b9009 o₁ Yes o₃ No
- j. Other (specify: _____) b0910..... b9010 o₁ Yes o₃ No

2. How important to you are the following bison health information sources? [Check one box per row.]

Health information sources	Not important	Slightly important	Moderately important	Very important	Extremely important	
a. Bison association resources/meetings	O ₁	O ₂	O ₃	O ₄	O ₅	b9011
b. Producer gatherings (informal)	O ₁	O ₂	O ₃	O ₄	O ₅	b9012
c. Other producers—individually	O ₁	O ₂	O ₃	O ₄	O ₅	b9013
d. Internet	O ₁	O ₂	O ₃	O ₄	O ₅	b9014
e. Magazines/newsletters	O ₁	O ₂	O ₃	O ₄	O ₅	b9015
f. University/extension	O ₁	O ₂	O ₃	O ₄	O ₅	b9016
g. Veterinarians	O ₁	O ₂	O ₃	O ₄	O ₅	b9017
h. Feed and drug salespeople	O ₁	O ₂	O ₃	O ₄	O ₅	b9018
i. Other (specify: _____)	O ₁	O ₂	O ₃	O ₄	O ₅	b0919/ b9019

Section 10. Conclusion

1. We anticipate that results of this study will be published and available in 2024. Enter your e-mail address here if you would like to be notified when results are available. You can also find survey results at the “Bison Studies” link at www.aphis.usda.gov/nahms/ . 0001 _____ e-mail address
2. Please enter the date you completed this questionnaire (mm/dd/2022).0002 ____ / ____ /2022
3. How many minutes did it take you to complete the questionnaire?.....0003 _____ min
4. Which of the following best describes your position with this operation? [Check one only.] 0004
 - 0₁ Owner
 - 0₂ Manager
 - 0₃ Family member (other than owner or manager)
 - 0₄ Other hired employee
 - 0₅ Other (specify: _____) 0005

5. 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. Results will be returned to you confidentially. The biological testing is entirely voluntary.

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.

Please indicate below whether you choose to participate in the listed sampling components.

- a. Fecal parasite testing (Fecal Samples)—pre-deworming (Baseline) 0006 0₁ Yes 0₃ No
- b. Fecal parasite testing (Fecal Samples)—post-deworming 0007 0₁ Yes 0₃ No
- c. Enteric microbe testing (Fecal Samples) 0008 0₁ Yes 0₃ No
- d. Pasture forage testing (Pasture Forage Samples) 0009 0₁ Yes 0₃ No

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>.

[If you answered “No” to 5.a-d and do not want to do any testing, GO TO question 7; otherwise, continue.]

6. Please record the operator’s name, phone number, address, e-mail address, and the **FARM ID** (from the front page) below so that you can participate in the biological testing phase.

Name: _____ 0010	Phone number: _____ 0011
Address: _____ _____ 0012	E-mail address: _____ 0013
FARM ID number (from front page): _____ 0014	

7. Do you have any comments regarding this questionnaire or operation? 0015

Thank you very much for completing the NAHMS Bison 2022 Study Survey!
Please return this questionnaire to NASS in the enclosed pre-addressed, postage-paid envelope.

OFFICE USE ONLY										
Response		Respondent		Mode		Enum.	Eval.	Change	Office Use for POID	
1-Comp 2-R 3-Inaccessible 4-Office Hold 5-R – Est 6-Inac – Est 7-Off Hold – Est	9901	1-Op/Mgr 2-Spouse 3-Acct/Bkpr 4-Partner 9-Oth	9902	1-PASI (Mail) 2-PATI (Tel) 3-PAPI (Face-to-Face) 6-Email 7-Fax 19-Other	9903	9998	9900	9985	9989	
							R. Unit		Optional Use	
							9921		9907	9908