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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 Pre-Deworming Fecal Parasite Kit A Collection Record

Collect the pre-deworming samples on the day of administration of dewormer to bison that have **not been given any dewormer in the past 60 days (2 months)**. Collect the pre-deworming samples at the same time as the enteric microbe samples (2 fecal samples per bison, but ship the samples in their respective kits). You will need to **ship these samples within 24 hours of collection**. Collect and ship samples **Sunday through Wednesday**.

### NUMBER OF BISON TO SAMPLE

Number of bison on an Operation	Sample Number
1-9 bison	Sample all bison
10-24 bison	Sample up to 15 bison
25-99 bison	Sample up to 25 bison
100 or more bison	Sample up to 30 bison

Select animals that will be representative of the herd. If possible, include pregnant/nursing bison as well as young bison in your sample collection. Include bison that you think might have worms.

### Step-by-Step Guide to Sample Collection

Please follow the instructions provided below for collection and submission of samples. Two samples per animal (duplicate samples) need to be collected to complete both the parasite testing and the enteric microbe testing. The enteric microbe samples will be submitted in the Enteric Microbe (EM kit) box (see separate Enteric Microbe Collection Record). The pre-deworming fecal parasite Kit A samples will be submitted in the box labeled FP Kit A. The two kits will be shipped to different labs; please be sure to use the proper shipping label for each kit. **The fecal parasite Kit A samples will be shipped to SDSU for testing.**

1. Freeze ice packs 24 hours ahead of time.
2. Collect the pre-deworming fecal samples (and enteric microbe fecal samples, if elected) when you administer dewormer. Dewormer needs to be dosed to individuals (ie not shared mineral blocks) and individuals need to receive the full dose.
3. Turn a Whirl-Pak® bag inside out over your hand.
4. Pick up a small handful (golf ball size) of **fresh** fecal material from the top of the pile to prevent contamination from the ground. One fecal ball per bag is adequate. Include diarrhea samples. If you plan on submitting a post-deworming Kit B to test for dewormer resistance, please try to collect samples from a specific bison that you can identify and sample from again in 12-30 days. It is easiest to collect fresh samples and link the feces with the animal when the bison stands up.
5. **If possible, associate the sample with a specific animal.** If you cannot identify specific animal samples, please provide a pasture ID and describe the group of animals that the sample is from in the collection form row. Include information of gender, age range, and breed for the group. You will need to collect samples from the same bison or group of animals for the post-deworming kit.

6. Turn the bag right side out with your other hand **and** squeeze extra air out of the bag. Roll the bag **twice** and twist closed to prevent leakage.
7. Place a preprinted label on the sample bag. **Do not use the label to seal the bag.** Write the **Bison Unique ID and Farm ID** on each label. Write the Bison Unique ID in the corresponding row for Bison sample # on the table in Pre-Deworming Fecal Parasite Kit A Form.

**REPEAT STEPS 3-7 for duplicate samples if submitting Enteric Microbe samples. Use bags and labels from the Pre-Deworming Fecal Parasite Kit (FP Kit A) for fecal parasite sampling. Use bags and labels from the Enteric Microbe kit (EM Kit) for enteric microbe sampling. The Enteric Microbe samples will be submitted in the EM Kit. DO NOT INCLUDE ENTERIC MICROBE SAMPLES IN THE FECAL PARASITE KIT.**

8. Cool samples down as soon as possible and refrigerate until they are shipped. **Do not freeze the samples.**
9. The Pre-Deworming Fecal Parasite Kit A Form is printed on 2-part carbonless paper. **Please write firmly with a ballpoint pen and make sure the information appears clearly on both copies.** The different colored copies of the Pre-Deworming Fecal Parasite Kit A Form will go to the following destinations:
  - a. White— Place in box with samples.
  - b. Yellow copy—Keep for your records→ You will need this to complete the table in Form 2 (the post-deworming form) in Post-Deworming Fecal Parasite Kit B in 12 to 30 days.

# Storybook: Fecal Collection and Shipping

For each sample, try to match an individual bison with the feces collected.

Open a Whirl-Pak® bag and turn it inside out over your gloved hand.

Pick up a small handful of fresh fecal material from **the middle and top of the fecal pile** to prevent contamination from the ground. One fecal ball is adequate.



Turn the bag right side out with your other hand.



Squeeze extra air out of the bag and close firmly by rolling the upper edge over two times and twisting the yellow tabs to prevent leakage.

IMMEDIATELY place label on side of Whirl-Pak bag. Fill in bison Unique ID on the label. This number should correspond to the information provided on the table in Pre-Deworming Fecal Parasite Kit A Form for this bison.



Place all labeled sample bags inside the large resealable bag, squeeze out extra air, and close firmly to prevent leakage.



Place the samples with the frozen ice packs in the provided Styrofoam cooler. Place used dewormer tube, label, or insert in Kit A.

Place the white copy of the table in Pre-Deworming Fecal Parasite Kit A Form on top of the Styrofoam cooler. Seal Box Kit A with packing tape and ship to the lab using the preprinted FedEx label provided.

Complete the Pre-Deworming Fecal Parasite Kit A Form.

Keep the YELLOW copy for your records (you will need it to complete the table in the post-deworming form).

## Completing the table in Pre-Deworming Fecal Parasite Kit A Form (attached)

1. **FARM ID:** This ID will be filled out for you and test results will refer to this unique ID number.
2. **Kit ID:** This number is printed on Box FP Kit A and on the labels for the sample bags.
3. Collect the pre-deworming fecal samples when you **administer the dewormer**.
4. Complete each column in the table in Pre-Deworming Fecal Parasite Kit A Form for each bison sampled. If you don't know the answer, write **DK**. If you **decline to answer**, please draw a line through the cell so that we know you didn't just forget to answer that question. If you cannot identify specific animal samples, please describe the group of animals that the sample is from in the collection form row for that group. Include information on gender, age range, and breed for the group. You will need to collect samples from the same individual bison or same group of animals for the post-deworming kit.
5. Record the name of the dewormer and the date the dewormer was administered on the Pre-Deworming Fecal Parasite Kit A Form.
  - a. **Please include the used dewormer tube, label, or insert in Box FP Kit A when shipping the samples to the lab.**
  - b. A list of deworming products has been provided in Box FP Kit A to help you identify the product(s) used.

6. Place the **white copy of the collection form** in the box with the samples, a foam lid and packing tape.



7. **Keep the yellow copy** of the collection form in the post-deworming form. We recommend you keep it with you.

You will need to include the yellow copy with Box FP Kit A.



8. **Ship samples with the frozen ice packs no more than 24 hours** after collecting the samples. **Ship Sunday through Wednesday.** Do not collect samples on Thursday-Saturday.
9. **Use the enclosed preprinted, prepaid FedEx label addressed to SDSU.**

Contact FedEx to locate a convenient drop-off location that accepts priority overnight packages. 1-800-gofedex (1-800-463-3339) or [www.fedex.com](http://www.fedex.com)

## Pre-Deworming Fecal Parasite Kit A Form

FARM ID \_\_\_\_\_

Kit ID: \_\_\_\_\_

Collection date: \_\_\_\_\_

Sample #	Bison unique ID*	Age (months OR years)	Gender (see codes below)	Breed (see codes below)	Condition of fecal sample 1=Normal 2=Soft/cowpie-like 3=Watery, 4=bloody 5=Other (describe)	Date of last deworming (prior to this study)	Dewormer used at last deworming prior to this study (enter code from Reference List or specify "Other")	Dewormer used at time of this fecal collection (enter code from Reference List or specify "Other")	Acres per animal unit of pasture animal is grazing (acres/AU)	Did bison graze this pasture in preceding season? (yes/no)	Last year livestock other than bison grazed this pasture (year)
1		___ mo or ___ yr									
2		___ mo or ___ yr									
3		___ mo or ___ yr									
4		___ mo or ___ yr									
5		___ mo or ___ yr									
6		___ mo or ___ yr									
7		___ mo or ___ yr									
8		___ mo or ___ yr									
9		___ mo or ___ yr									
10		___ mo or ___ yr									

\*Any designation will do (text or numeric) as long as it identifies a specific animal (preferred) or group of animals.

**Gender codes:**

1 = Intact male      2 = Castrated male      3 = Intact female (nonpregnant)      4 = Pregnant female      5 = Spayed female      6 = Unknown status

**Breed codes:**

1 = Plains      2 = Wood      3 = Beefalo (hybrid)      4 = Wisent      5 = Zubron      6 = Other breed

## Pre-Deworming Fecal Parasite Kit A Form

FARM ID \_\_\_\_\_

Kit ID: \_\_\_\_\_

Collection date: \_\_\_\_\_

Sample #	Bison unique ID*	Age (months OR years)	Gender (see codes below)	Breed (see codes below)	Condition of fecal sample 1=Normal 2=Soft/cowpie-like 3=Watery, 4=bloody 5=Other (describe)	Date of last deworming ( <u>prior</u> to this study)	Dewormer used at last deworming <u>prior</u> to this study (enter code from Reference List or specify "Other")	Dewormer used at time of this fecal collection (enter code from Reference List or specify "Other")	Acres per animal unit of pasture animal is grazing (acres/AU)	Did bison graze this pasture in preceding season? (yes/no)	Last year livestock other than bison grazed this pasture (year)
11		___ mo or ___ yr									
12		___ mo or ___ yr									
13		___ mo or ___ yr									
14		___ mo or ___ yr									
15		___ mo or ___ yr									
16		___ mo or ___ yr									
17		___ mo or ___ yr									
18		___ mo or ___ yr									
19		___ mo or ___ yr									
20		___ mo or ___ yr									

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FARM ID \_\_\_\_\_

Kit ID: \_\_\_\_\_

Collection date: \_\_\_\_\_

Sample #	Bison unique ID*	Age (months OR years)	Gender (see codes below)	Breed (see codes below)	Condition of fecal sample 1=Normal 2=Soft/cowpie-like 3=Watery, 4=bloody 5=Other (describe)	Date of last deworming (prior to this study)	Dewormer used at last deworming prior to this study (enter code from Reference List or specify "Other")	Dewormer used at time of this fecal collection (enter code from Product List or specify "Other")	Acres per animal unit of pasture animal is grazing (acres/AU)	Did bison graze this pasture in preceding season? (yes/no)	Last year livestock other than bison grazed this pasture (year)
21		___ mo or ___ yr									
22		___ mo or ___ yr									
23		___ mo or ___ yr									
24		___ mo or ___ yr									
25		___ mo or ___ yr									
26		___ mo or ___ yr									
27		___ mo or ___ yr									
28		___ mo or ___ yr									
29		___ mo or ___ yr									
30		___ mo or ___ yr									

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1 = Plains      2 = Wood      3 = Beefalo (hybrid)      4 = Wisent      5 = Zubron      6 = Other breed