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| According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0420. The time required to complete this information collection is estimated to average 2 hours 30 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collected. | | **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**  **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**

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| **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.

1. Cool samples down as soon as possible and refrigerate until they are shipped. **Do not freeze the samples.**
2. 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:
   1. White— Place in box with samples.
   2. 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.

1. Keep the YELLOW copy for your records (you will need it to complete the table in the post-deworming form).
2. Place the white copy of the table in Pre-Deworming Fecal Parasite Kit A Form on top of the Styrofoam lid and ship with the samples to the lab. Seal Box Kit A with packing tape and ship to the lab using the preprinted FedEx label provided.
3. Pack the samples with the frozen ice   
   packs in the provided Styrofoam cooler in cardboard Box Kit A. **Place used dewormer tube, label, or insert in Kit A.**

Complete the Pre-Deworming Fecal Parasite Kit A Form.

1. Place all labeled sample bags inside the large resealable bag, squeeze out extra air, and close firmly to prevent leakage.
2. 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.
3. 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.
4. Turn the bag right side out with your other hand.
5. 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.
6. Open a Whirl-Pak® bag and turn it inside out over your gloved hand.



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



**Storybook:** Fecal Collection and Shipping



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.
   1. **Please include the used dewormer tube, label, or insert in Box FP Kit A when shipping the samples to the lab.**
   2. 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 on top of the Styrofoam lid and seal the box with packing tape.
7. Keep the yellow copy of the collection form for your records. You will need it to complete the table in the post-deworming form. We recommend that you store it with Box FP Kit B.
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

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| 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

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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) |
| 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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Breed codes:

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| 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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