

**Administering SAFE-GUARD® (fenbendazole) to Bison**  
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Effective, cost efficient control of internal parasites in bison represents a significant challenge to many bison producers. Drought conditions such as many of us have experienced lately can dramatically increase internal parasite exposure rates when bison are forced to graze pasture more heavily than normal or are concentrated in smaller pastures to use available water sources, often contaminated with fecal material.

High internal parasite loads result in extensive damage to the lining of the intestinal tract. Typical clinical signs are weight loss, rough hair coat, profuse watery diarrhea, lack of appetite, anemia, and edema. Increased stress from handling bison to administer parasite treatments often worsens the clinical severity of the problem. Therefore, using a method to minimize stress when treating the problem, and that ensures all animals being treated receive adequate amounts of medication is important.

One of the most commonly used oral medications to treat internal parasites in bison is SAFE-GUARD® (fenbendazole). This medication is available in different formulations, an oral paste and a medicated feed pellet or crumble being the most common. An alternative method to consider is the administration of this product in the premix form in the salt or mineral component of the ration.

Before feeding the following steps are recommended:

- Remove all existing mineral supplements from the paddock or pasture unit being used.
- Estimate the amount of free choice granular mineral the bison will consume over the period of 7 days and place this amount of fresh, free choice loose granular mineral with adequate feeder space in the pasture/paddock unit.
- After five days, gather up the mineral that has not been consumed and weigh the remaining mineral so the number of ounces of mineral consumed during the five day period can be measured. This will be the difference between the amount put out and the amount remaining.
- Mix the appropriate amount of SAFE-GUARD® PREMIX in a fresh batch of the same mineral that represents five days consumption volume. The goal is to include enough SAFE-GUARD® PREMIX in the mineral mix to ensure that all the bison in the group consume a total of 10 mg of fenbendazole per kg of body weight over the access period of five to seven days. If you are mixing the SAFE-GUARD® PREMIX into the mineral yourself, make sure that the premix is evenly distributed in the mineral.

Feeding directions for using SAFE-GUARD® Premix 20% for bison:

The product is labelled SAFE-GUARD® PREMIX 20%. This means that there is 200 mg of active ingredient in each gram of premix or 200,000 mg of fenbendazole activity in each kilogram of premix. The required amount for treatment is equal to the total animal weight (kg) x 10 mg/kg bodyweight of SAFE-GUARD®. Therefore, at this dose rate, 1 kg of premix will deworm 20,000 kg of bison.

The premix can be ordered from your local veterinarian by prescription. A feed company with a veterinarian on staff or retainer can provide the product directly to you and will premix the correct dosage in your mineral mix on request. The use of fenbendazole in bison is “off label”, meaning that it is unlicensed for that particular use. The use of off label substances in bison necessitates a veterinary prescription.

This method works equally well in free choice loose salt if mineral consumption in your herd is unpredictable, as long as all other potential sources of salt are disregarded in the ration when determining the five to seven day consumption rate and the treatment period.

You may ask yourself, “Why would I go to all this trouble to mix the fenbendazole in the mineral or salt when I can buy it in pelleted form and just follow the label directions when feeding it to my bison?” By feeding fenbendazole in the salt or mineral fraction of the ration every animal gets the appropriate dose. If the bison are on pasture or have access to hay they may not want to eat the crumbles. If the pellets are mixed with grain and are not fed with a self feeder, then the dominant animals in the group get most of the grain mix and the ones that likely need the medication the most get none or less than required. Besides, the premix is cheaper than the pelleted form.

Once you become comfortable with estimating the total weight of the group, treat and calculate the amount of premix to be added to a five to seven day ration of free choice salt or mineral. You will likely become very pleased with this method and the results achieved in any group of bison needing treatment for parasites.

Do not underestimate the importance of incorporating a safety buffer when complying with the prescribed withdrawal period for fenbendazole. The prescribed withdrawal period for cattle at a dosage rate of 5mg of fenbendazole per kg body weight and fed over a period of up to six days is that animals must not be slaughtered for use in food for at least 13 days after the last treatment. When using this product in bison at the dose rate used in this article, I recommend that you more than triple the withdrawal period to a minimum of 45 days from the end of the final day of the treatment period. Since the product is not licensed for use in bison, any amount of drug found on a government meat quality check constitutes a violation and the carcass will be condemned. There are no allowable limits for this drug in bison meat.

To date, there has not been any formal research determining the appropriate withdrawal period when using this product in bison. If you choose to use this product in bison then you must assume complete responsibility for the consequences of its use.

Remember, you should seriously consider having fecal samples analysed on at least ten percent of any group being dewormed prior to treatment and then again 3 to 4 weeks post treatment. When this is done you will be able to track the parasite loads in your herd units and gain valuable insight into the effectiveness of your treatment program. This information will help to determine how often you need to repeat the process.