

The New Scoop on Poop in Bison

by Roy Lewis DVM

As we now know, parasites, especially internal ones (worms) are one of the major management health issues bison producers must deal with. This article will provide information from a study which was done comparing injectable versus pour on ivermectin for efficacy. Also, I had opportunity to see if the dewormer safeguard worked against tapeworms where we found a heavy burden in bison calves. Both field trials revealed, I believe, some good information for the bison industry and bison producers in general.

The pour on endectocides have been used for years successfully in cattle but the verdict was really out in bison. Some producers felt it worked well while others always used injectable as they didn't trust the pour-ons. In the first trial, which will be published in a veterinary journal, I worked with Dr. Murray Woodbury of the Western College of Veterinary Medicine.

We first found a herd of some very wormy bison. The herd was divided into three groups – one on which we used the injectable, one on which we used pour on and the third group was not treated and used as a control group. Suffice it to say both the injectable and pour on products took the egg count down to zero in all cases. In order for a deworming product to be successful the reduction in parasite levels, shown in this case by worm egg counts, must be reduced by 90%. That was most definitely the case here.

I need to qualify a couple of things. If there was shedding hair as you will get in the spring and into the summer in wormy bison it must be plucked off and the applicator gun must be pushed down into the hair somewhat. Any pour on product applied on top of shedding hair will not reach the skin and loses its effectiveness. With thinner bison having pointy backs the pour-on product was applied just to the one side of the spine.

In this trial, with both the injectable and pour-on, we stuck very carefully to the cattle dose based on weight. The pour-on worked as well on yearlings and older cows. I personally have complete confidence in both products. With calves where the pour on dosage will be small, if you are catching them to tag etc. it may be best to use the injectable. Save the pour on for cases where you quickly sort or are not fully catching the bison. They could be treated in a confined box handling system and released out the side. It is best though to apply the product pushed down into the hair.

If you do treat once a year at processing, you want to make sure and treat all the bison. Do not miss any. If you are in doubt as to whether you have a worm issue, take several fecal samples into the veterinary clinic and have them tested. Rarely in bison do we have external parasites such as lice or ticks - it almost always will be an internal parasite problem (worms) that we are dealing with.

I have seen over the last several years fecals on young bison (calves and yearlings) having increasing levels of tapeworm eggs in them. Tapeworms have a distinctive egg compared to other species of worms. In the beef industry they are relatively rare findings and not considered significant to weight gains or performance except when seen in young animals. In one bison herd the tapeworm levels were increasing in the calves so it was decided to check whether a product "safeguard" which is approved for cattle tapeworms would be effective against bison. We also wanted to assess how easy they would be to treat with an oral hook applicator through a crash gate. Safeguard contains fenbendazole and is effective on all internal

worms including tapeworms. Safeguard also has several feed additive formulations. Hopefully in the future we may see a product which can be dispensed in the water which would work well in the summer at remote watering stations.

The recommended dosage for treatment of tapeworms is double the standard dose for cattle. This is also the dosage we used and is the same dosage we use for regular worms in bison (use twice the cattle dosage under a prescription from your veterinarian). This treatment was found to be very effective, taking the tapeworm worm load down to zero.

The oral product was given very easily using a hook applicator. The bison calves took it very easily with very little spillage and it could be given through the crash gate in this case. It appears that older bison do develop some natural resistance. In this herd the mothers of these calves had very little to no evidence of tapeworms. In the future we intend to use safeguard on the calves to effectively control all the worms present.

Always be on the lookout for internal parasites on your bison herd and do routine fecals where appropriate. Have your veterinarian quantify the results so you can compare to results the following year. When I process a herd, I look at several fecals, normally from the poorest doing animals. This gives you a measure of what is happening with internal parasites with the rest of the herd. If we monitor and keep parasites under control in our bison herds, growth improves and other health concerns are reduced.