



August (Winter) 2008, 3 pages

POST-MORTEM

By Andy Cowan

Over the years I have occasionally asked my Vet to come out and post mortem deer for me in order to better understand the animal. As I do not vaccinate or drench stock, it is interesting and important to find out if there are any problems with the basics such as liver fluke and lungworm. Liver fluke could be a problem in my area because we have about 1000mm of rain each year. We also have quite a few low-lying wet areas and a number of waterways that flow during a normal winter. It is these areas that are home to the snail that is intermediate host of the liver fluke. My treatment of liver fluke was to put a small bag of copper sulphate into the water troughs. I have no real way of telling whether this worked or not, apart from in their liver since. Initially, I tended to graze the grass a little too short which is the worst thing you can do if you have a lung worm problem. The answer for this problem is simply to improve your pasture management.

As a rule of thumb, deer are extraordinarily resilient animals. I had an interesting experience this year with my weaners. I weaned about 50 animals into the yards and fed them there for about a month. They were weaned at about 5 months old. Two animals caught my attention by the end of the first week. One of the smaller animals started to scour after about a week and another was lethargic and slow to come up for its feed. They were being fed ad-lib second cut hay and pellets thrown into the hay twice a day. This was done to basically quieten them down. As the animal that was scouring was in good condition and aggressively chasing food, I did not worry about it too much and just kept observing it. I was actually more concerned about the lethargic animal. As a change in diet can cause minor upsets, I watched and waited.

Deer seem to have an amazing ability to bounce back, given adequate food, shelter and fresh water. Sometimes young fawns may look weaker than the rest of the group, just because of their age. They may be month or so younger than the rest. With these animals, I carefully monitored the whole mob to ensure that the problem was not contagious. All the other animals thrived.

After a month in the yards I let the weaners out to fresh pasture. The one animal still had the scours but had only lost a bit of condition. The lethargic animal had become more willing to join in the feeding frenzy that was not associated with the starting of an auger and the rattle of a bucket. After two weeks in the paddock all the animals were well and enjoying their lives.

Sometimes, if an animal dies unexpectedly, I attempt a post-mortem. Although I have been to the abattoirs to check up on what happens to my animals, generally it is difficult to get a close look at the internal organs of any of the slaughtered animals. At the abattoirs I could really only get a good look at the final venison carcass. This was a help anyway in understanding visual appraisal of live stock. The following outline is based on a document given to me back in the early 1990's by Dr Sue Joubert when she was helping us out with embryo transfers.

If you want to try to find out why an animal has suddenly died, this may help your quest. It is probably important to mention that if you are in doubt about any section of an internal organ it is worth saving it in a plastic bag and take it to your Vet straight away. Dr. Joubert suggests storing some samples in formalin – small pieces of liver, kidney, worms from intestine or stomach, vertebra, etc. This would be difficult for the average farmer so it would be better to get to the Vet immediately if concerned about anything in particular. Just remember to label everything!!! The big problem, if you are doing it for the first time, is to know what is normal. A broken leg or lung worm infestation are easily identified, but grain poisoning and the resultant overheating of the stomach linings may be a bit more difficult. Call your Vet.

- Step 1 Examine the exterior of the animal for wounds, bruises and compound fractures.
- Step 2 Position the animal with the left side down.
- Step 3 Remove both right legs. Remove the hind leg by cutting it through the hip joint and the fore leg by separating it from the ribs.
- Step 4 Remove the skin from the right flank to fully expose the right side of the carcass.
- Step 5 Cut open the abdomen along the mid-line and behind the last rib to expose the rumen and intestines
- Step 6 Cut the ribs along the breast bone and remove diaphragm (separates abdomen and thorax) from the last rib.
- Step 7 Either break or cut ribs along the back bone. They will possibly break if bent back individually.
- Step 8 Remove the lungs and heart together from the chest cavity noticing any unusual looking adhesions to the chest wall. Observe anything out of the ordinary.
- Step 9 Cut open trachea (wind pipe) into each lung. Look for worms.
- Step 10 Remove the liver. Notice, the size, shape and texture, fluke etc. If concerned about copper levels or any abnormality put a sample in the freezer and get your vet to send it off to a lab to measure copper levels.
- Step 11 Remove the kidneys and check for abnormalities
- Step 12 Observe the reproductive tract. Check with females for cysts on ovaries or pus in the uterus.
- Step 13 Observe bladder. Do not break.
- Step 14 Observe external surface of stomach and intestines.
- Step 15 Locate the junction of the small intestine and the fourth stomach – the abomasum.
- Step 16 Incise abomasum and inspect contents for worms. If necessary, take sample to Vet for ID.
- Step 17 Open both small and large intestine at regular intervals, checking for worms and looking at lining and contents.
- Step 18 Inspect rumen contents and lining – especially if animal has been put onto new grain diet.
- Step 19 Spleen is located under the rumen – checking for texture and lumps.
- Step 20 Look for general bruising of muscles.
- Step 21 Check joints to see if they are swollen
- Step 22 Check feet soles, walls and edges.
- Step 23 Check mouth, teeth, tongue, pharynx and larynx.
- Step 24 If you have any real concerns about the reason for death check the brain, lymph nodes and spinal cord – but would need much more expertise to diagnose any problems. Take samples to Vet if concerned.

References

Dr Sue Joubert. Post-mortem Procedure Following Deer Deaths.

It is probably worth mentioning that precautions should be taken when attempting this procedure. OH&S should always be taken into account. For example, extreme care should be taken if you are using sharp knives when you cut up the animal. A chain-mesh glove is ideal. Protective clothing and gloves should be worn. If in doubt, refer to your vet.

Dr Joubert also informed me that Formalin is no longer used as a preservative as it is carcinogenic. You can get non-carcinogenic tissue preservative from your vet. Tissue samples should be cut in 2cm thick cross sections as a maximum. This is because the preservative needs to infiltrate the tissue before the cells are destroyed.

