DEER HEALTH MANAGEMENT PROGRAMME

(C.G. Mackintosh, Veterinary Scientist, Invermay)

SUMMARY

- *Good nutrition, shelter and a minimum of stress are fundamental to preventing disease in deer.*
- *Calves must be drenched regularly to control lungworm. Adult deer may benefit from strategic drenching.*
- *Vaccinate against clostridial diseases and, in some areas, leptospirosis.*
- *Trace element supplements may be needed in some areas.*
- *Buy only tuberculosis-tested animals.*
- *Wapiti diseases are essentially the same as those of red deer, but extra attention should be paid to tissue worm, lungworm, ryegrass staggers, copper and (in cross-breeding) calving difficulties*

MAIN ACTIVITIES

Good nutrition, shelter and a minimum of stress are fundamental to disease prevention. Avoid overfeeding hinds in spring but provide them with high quality feed from 1 week prior to the start of calving. A concentrated calving period should avoid late calvers becoming over-fat (Fig. 1).

Stags have relatively high maintenance requirements in winter due to their low fat reserves and poor insulation.
It is preferable to wean calves in March so that they can receive regular drenching and optimal feeding during the autumn/winter period. Shelter should be provided and their feed allowance increased during periods of bad weather.

ANTHELMINTICS

It is essential that calves are drenched regularly during their first autumn, from March until June, to prevent lungworm disease. White drenches (benzimidazoles - Systemex, Synanthic, Panacur, Valbazen, Rintal) should be given at 3 weekly intervals and Ivomec at 4 to 5 weekly intervals (because it persists in the body for 1-2 weeks). Two drenches the following spring and summer ensure there is no lungworm build-up in deer which are slow to develop resistance.
Adult deer are relatively resistant to internal parasites but intensively grazed deer may benefit from 2 strategic drenches: hinds before calving and at weaning; stags at velvetting and after the rut. Alternatively, periodic faecal samples can be checked through your veterinarian for signs of worm build-up. Recently captured or imported stock should be drenched regularly for up to 6 months after introduction to pasture. Bought in stock should be drenched on arrival.

VACCINATIONS

Clostridial disease

Clostridial diseases can occur in deer and it is wise to vaccinate against them. Vaccinate calves with 2 doses 4-6 weeks apart in autumn. Adult stock should receive an annual booster; stags at velvetting and hinds either pre-mating or pre-calving.

Leptospirosis

Leptospiral vaccines *(hardjo, pomona)* are advisable in areas where dairy farming and pig-keeping are common. They can be administered at the same time as Clostridial vaccines.

TRACE-ELEMENTS

Selenium, copper, cobalt and iodine are the most commonly required trace-elements. Consult your veterinarian for advice. Supplements can be added to drenches, injected or topdressed.

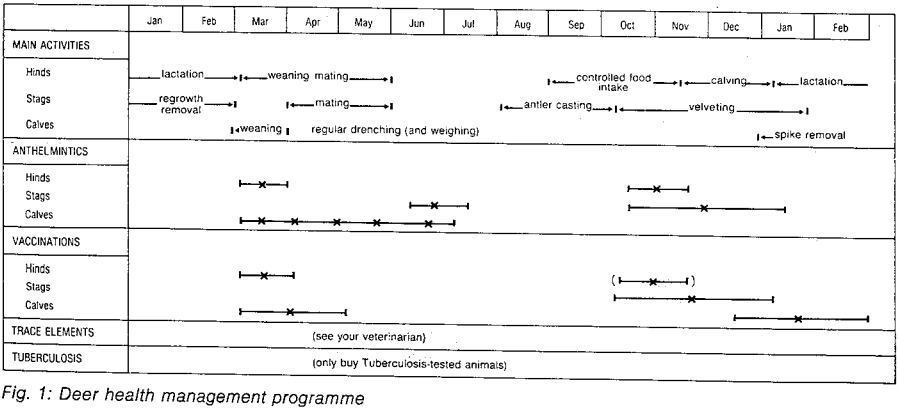

Fig. 1: Deer health management programme

TUBERCULOSIS

Only buy tuberculosis-tested animals. It is also advisable to quarantine bought in or captured deer for the first 30 to 60 days and repeat the Tb-test before introducing them to an existing herd.

DISEASES OF WAPITI

The diseases of wapiti are essentially the same as those of red deer. However, extra attention should be paid to the following problems.

Tissue worm

Wapiti, especially those originating from Fiordland, are more likely to carry the tissue-worm *(Elaphostrongylus cervi)*. This is usually not serious but it occasionally causes nervous signs if the worm gets into the brain or the spinal cord. Infected animals can be detected by examining faecal samples. Treatment is difficult and advice should be sought from your veterinarian.

Lungworm

Our experiences at Invermay lead us to suspect that wapiti are more susceptible to lungworm infection *(Dictyocaulus viviparus)* than red deer and do not develop natural resistance as readily. Consequently, in addition to drenching calves regularly in their first autumn they should also be drenched periodically (every 6-8 weeks) during the following spring, summer and autumn until they are 18 months old.

Imported wapiti

Recently imported wapiti should receive regular anthelmintic treatment for 6 months after their arrival and have faecal samples examined periodically for a further 6-12 months. Some of these animals have never been exposed to high levels of lungworms and gastro-intestinal parasites in their environment until grazed on pasture in New Zealand.

Ryegrass staggers

Canadian wapiti are particularly susceptible to ryegrass staggers (RGS). Affected animals develop head and body tremors and, if driven, they become unco-ordinated, fall over and thrash on the ground.

New Zealand wapiti-type and hybrid animals appear less susceptible. The disease is caused by a fungus growing inside the stems of certain ryegass cultivars. This fungus gives the plant resistance to Argentine Stem Weevil but over the summer/autumn period it produces toxins that cause brain damage in most domestic animals, resulting in RGS. This damage is reversible if the animals are removed from dangerous pasture immediately and fed on alternative food such as concentrates and hay. Otherwise the damage becomes permanent, resulting in chronic tremors.

Affected deer should be moved very quietly to prevent animals having seizures and injuring themselves. Prevention is by sowing paddocks with 'endophyte-free' ryegrass or other grass species.

Calving difficulties

When using Canadian or large New Zealand wapiti for cross-breeding with red deer or hybrids you can expect a higher incidence of calving difficulties. These can be minimised by ensuring the hinds are as well grown and large-framed as possible and avoiding over feeding them in spring. A tight calving period is also preferable. It may be desirble to use the wapiti for only the first cycle and then use a red 'chaser' bull thereafter.

Trace elements

There is some evidence that wapiti have a higher copper requirement than red deer.