

STAG BREEDING

John Cowie

Midlothian Farm - Member Cairnhill Group



I would like to give you a brief description of our farming operation as background and then describe our Deer Breeding programme and how we select our stags for sale.

Our farm consists of a total of 300 hectares, of which 240 ha are deer fenced. Currently we are farming 650 hinds, 400 weaners and 50 stags. Other stock carried are 1050 ewes, 370 ewe lambs, 50 Friesian cows and 120 yearling calves. We also have 44 hectares of crop, consisting of Timothy and Oats.

As you can see, ours is a diverse enterprise, but the main emphasis is with the deer. The Friesian cows are multiple suckled in a bull beef operation. These cattle are also used as a buffer between the sheep and the deer to reduce MCF deaths. The sheep are used in pasture control, especially in the spring and are sacrificed in any feed pinch. The crops, especially the Timothy are used as pads in our wetter Southland winters.

1. Breeding Programme

We have been deer farming since 1977 and have been "stud recording" all our hinds since 1979. This year we will be recording 500 Red hinds plus their progeny.

1.1 Aims

In any breeding programme it is very important to establish your aims and if you want to sell breeding stock, make sure these aims are commercially based.

Our aims are:-

- (1) Breed high growth-rate red hinds in the 100-140 kg range. These will:
 - enable the production of 11-15 month carcass in the 50-70 kg range to suit markets;
 - enable the use of Wapiti/Elk cross animals as terminal sires;
- (2) Improve our velvet potential to have red stags producing 4 to 6 kg of A grade velvet.
- (3) Have animals with good paddock and yard temperament.
- (4) Easy care
 - cull for calving and mothering problems
 - health problems e.g. ryegrass staggers.

To achieve these aims, I will describe our breeding programme and the four main operations which are involved:

- (1) Single sire mating - this must be done to identify sires.
- (2) Tagging to relate hinds to fawns e.g. Mother-daughter/son relationship. I will describe two methods we have tried and their problems.
- (3) Live weight recording at appropriate times.
- (4) Velvet.

1.2 Single Sire Mating - Things to consider:

- **Age of Stag.** Red spikers and 2 year old animals will only handle about 10-15 and 25-35 hinds respectively. Also I keep a close eye on these younger stags as they tend to have more problems.
- **Size of Hind Mob.** With older stags I normally give them 40-60 hinds, but with top stags I have exceeded this and been prepared to accept a few late and dry hinds
- **Mate rising 2 year old hinds separately.** This results in a better calving with fewer late fawns and dry hinds.
- **Proximity to other stags.** I try to keep stags separated by more than one fence. A lane or one empty paddock between mating mobs leads to a less stressful rut.
- **Covering Stag.** I put the main stag out about the 1st of April and introduce the covering stag between the 7 to 10th May when we mob all our hinds for the winter. With the later calving 2 year old hinds this could be too early, with a number calving after Christmas.

1.3 Calf:Hind Matching and Tagging

Eartags - We use the Allflex Maxi tag front and the large at the back, and use a different colour sequence for each year. We need these large tags to enable us to paddock identify animals. A small brass back up tag is used in the opposite ear.

Times to Tag

- **At Calving** - We used to do this when we had under one hundred hinds. It had the advantage that we could record birth dates and had extra time to mother up. The disadvantages which caused us to stop were: mismothering and mob disturbance. We had the occasional fawn loss and the time involved would now be too demanding.

- **Early to Mid February** - The advantages are that the fawns are bigger and we combine a pre-wean drench. We find that with drenching and tagging the fawns are separated from their mothers for 2-3 hours. To mother them up, we then let them all into a 2 acre paddock and observe them from a vehicle with field glasses. It takes about an hour to mother 60 hinds with their fawns. Younger hinds are easier to mother up in smaller mobs. We try and get a birth date by recording which hinds have calved each week, but this is harder to do in the more flighty 2 year-old hinds. Some recent parentage blood typing shows that we don't have much cross suckling.

1.4 Timing of Weighing

Weaning - We weigh all fawns at weaning and when these weights are corrected for fawn age, sex and age of dam, we can compare the hinds on their mothering ability.

15 month - This weight gives us an assessment of the animal's growth rate and equates with the important 10-15 month carcass weight aim. This is when we cull our younger hinds and select our stags to take through for assessing as breeders as two year olds. Also at this stage we compare the growth rate of each breeding stag's progeny.

Other weights we record are the mid winter weight of the hinds and the 2 year stag weight.

1.5 Velvet Records

Most of our velvet selection is at the two year old stage.

We record:-

- (1) **Budding Date** - this is when last year's spikes or buttons fall off.
- (2) **Cutting Date** - this is the velvetting date. To compare all 2 year velvet we bring the actual velvet weight to a corrected 60 day weight, e.g. for every 5 day growth each way of 60 days, it is plus or minus 10% of the actual weight. Generally we have found that with our present breeding line, stags with a corrected velvet weight between 2 to 2.7 kg will go on as adults to produce 4.5 to 5+ kg of velvet
- (3) **Bolters** - these are spikers which produce two heads as a yearling and by the two year stage are actually producing a third head. These animals never produce as well as their two year old head would suggest.
- (4) **Velvet Quality** - generally quality comments and the presence of bez tynes.
- (5) **Hind Velvet Index** - from using these velvet records I have been able to give some hinds a velvet index and this is another factor I consider when we select our replacement stock.

2. **Present Breeding Programme**

With these sorts of records on our animals we are currently assessing imported blood lines through the use of AI and are in the process of setting up an elite hind herd

In summary: I have shown what our breeding aims are and how we use a breeding programme with parentage, live weight and velvet weight information, to help us to achieve genetic gains in our stock. The next part of being a stag breeder is stock presentation and salesmanship, so that all this work becomes worthwhile in terms of financial return. This is another topic