

Feeding for optimal velvet production

Feeding rewards good breeding

There have been huge increases in per head velvet production as shown by the NZ National Velvet Competition where the open red class has increased over 20 years from around 6 kg/head to nearly 12 kg/head. While some of that increase is due to genetic progress, good feeding is needed to realise the genetic potential of the herd.

It starts early

- Good feeding of pregnant hinds is necessary to “prime” the future velvet production of their progeny.
- The milking performance of hinds will have a big effect on the weaning weights of their fawns and this in turn will greatly affect velvet yield as the stag fawns develop.
- Aim for growth rates in NZ red weaners of at least 180 g/day in autumn and 140 g/day in winter. This will result in average rising yearling weights of around 78 kg going into the spring.
- Offer rising yearling stags spring feed allowances of 4 kg DM/head/day of high quality pasture (at least 10 cm high) to achieve at least 300 g/day weight gain and a yearling weight of at least 100 kg (NZ reds).

Feeding stags from 1-2 years of age

- In summer and autumn when standard pasture rations are available there is no need for special feeding. However in drought years stags will benefit from supplementation, typically with good hay/silage/baleage.
- In winter, good hay/silage/baleage with supplements of crops and/or grain are needed.
- In early spring, put stags on good leafy pasture or give

Key points

- There are two critical periods for feeding velvetting stags
 - Straight after the rut to assist stags to recover lost bodyweight
 - During the antler growth period in the spring, but particularly in the pre-button casting phase.
- The under-feeding of stags at any time from conception to maturity will result in reduced velvet yields.
- Spring pasture is very high in protein and a great feed for velvet production, provided it is 10-14 cm in length and unsoiled.
- Specialist silages based on legumes and chicory are excellent winter feeds for stags.
- When feeding out autumn and winter rations to stags, space the rations well apart on the ground, to reduce fighting and bossing.
- Do not feed stags high value/cost supplements on top of an adequate feed supply. This will not increase velvet yields.

them high quality supplements.

- In early August, 3-4 weeks before the first button casting, provide stags with a lift in quality feed. The penalty for not doing so is delayed casting and reduced velvet yields.

While under-nutrition in spring can depress velvet antler yields by up to 20%, there is no need to feed expensive supplements if good pasture is available. Spring pasture is an excellent high protein feed provided it is at least 13 cm long and unsoiled





Photo: Trevor Walton

Space out winter feed well to reduce fighting and bossing

Seasonal feeding of mature stags

In all seasons, but particularly during the rut, it is best to keep 3-yr old and 4-yr old stags in age group mobs, away from older stags. This will reduce bullying and the risk of injury.

Autumn

This is the season of the rut and with it comes an inevitable decrease in stag feed intake and body weight loss. While you can't prevent this, you can minimise the loss.

- Give non-breeding stag groups as much space as sensible feed conservation allows.
- Keep them as far away as practical from active breeding stags in order to reduce fence pacing, aggressive behaviour and extreme rut-related weight loss.

Rapid post-rut weight recovery is readily achieved with targeted feeding. Under-feeding post-rut and in winter will lower velvet antler yield by up to 10%.

- Autumn saved pasture or high quality hay/silage or crop are suitable feeds.
- Bulky forages like baleage must be of the highest quality, because of the limited capacity of the rumen at this time of the year.
- Offer concentrates on an individual animal basis, rather than by group feeding in troughs or lines.

Winter

Although there is not much capacity for body growth in winter, feed requirements are high. Stags produce a lot of heat and they are not very well insulated. They need fuel. A good feed is baleage made from chicory, red clover or

lucerne grown for this purpose. Feed it ad lib with 1.2 kg whole grain/head/day.

Pasture silage is unlikely to be an adequate feed. While its crude protein concentration may look adequate, often there is not enough protein yielded during digestion to meet stags' nutritional requirements. This is especially important in early August when antler growth is initiated.

- Make sure supplementary feed, especially grain, is well spread out on the ground to avoid stags fighting when competing for food.
- Feeding high value/high cost protein supplements on top of a good standard feed ration will not increase velvet antler yields.

Spring

- Major antler growth (up to 2 cm/day) occurs in the spring.
- Under-nutrition during this period can depress velvet antler yields by up to 20%.
- Stags need a high protein ration from button drop. New season pasture is an excellent high protein feed provided it is at least 13 cm long and unsoiled.
- Pasture of this quality is not always available in early-August. Fodder crops such as swedes and fodder beet are a good alternative, supplemented with high-protein feeds like processed feed nuts or Palm Kernel Expeller.

Summer

Once velvet regrowth has been cut, there is no need for high quality feed. More mature pasture of lower quality (MJME/kg DM of 9) is satisfactory.



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