Growing weaners faster with better autumn feeding

Here's what you could be missing

Allowing weaners to maximise their liveweight gain during March, April and May is key to maximising profits from any deer management system.

The industry average autumn growth rate for weaners is only 150 grams a day (g/d), when it could be 30-50% higher. This represents a huge loss of potential.

To meet chilled season targets, to ensure good fawning rates in maiden hinds and to maximise life-time production in velvet stags, autumn growth rates of 185 g/d are needed as a minimum. This is a 23% increase on the current industry average, but is still a modest target.

With good feeding and management, a 200 g/d average autumn growth rate is achievable on good pasture. On a clover/plantain pasture, increase the target by 10-20% to 220-240 g/d. On chicory, red clover or lucerne, increase it by 25-55% to 250-310 g/d.

Useful tools for plotting the progress of your weaners toward their growth targets have been developed in the P2P programme. Known as 'Deer growth curves', one set has been developed for spring kill and summer kill venison animals. The other is for rising 2-yr old replacement hinds.

The curves are available as posters and as spreadsheets. See the link at the end of this *Deer Fact*.

Feeding to tap the potential

For young deer to achieve their genetic potential for growth, they need a high intake of unsoiled, nutritious digestible feed.

Key points

- **Maximise your deer income by capturing the high autumn growth potential of your weaners.**
- **Weaners with genetics for early growth (eastern reds or wapiti-crossbreds) can achieve growth rates of 300 grams/day or better in autumn.**
- **Specialist forages such as red clover or lucerne, and mixes of clovers and herbs such as chicory or plantain, are the best feeds for autumn growth and health of weaner deer.**
- **Plan well in advance. Sow specialist autumn forages in spring or the previous autumn. Contract the delivery of supplements in spring, so you are assured of supply six months later.**
- **Set up fawns for rapid growth after weaning, by getting them used to post-weaning feeds while still running with their hinds. Plan and execute weaning carefully to minimise stress and a check in growth rates.**
- **Give your weaners a daily allowance of at least 5 kg DM/head of lush, clean forage with a minimum legume content of 20%.**
- **Monitor weaner growth rates. If necessary, adjust their management to keep them on target before the onset of winter closes the high growth rate window.**

A weaner grazing chicory in March

In Massey University trials, weaners grazed on chicory and white clover grew 30-55% faster than their herd mates grazed on typical ryegrass/clover pasture

'Metabolisable energy' (ME) is often used to describe the nutritional value of animal feeds. It is an estimate of the energy available to the animal when it digests a particular feed. It is expressed as megajoules of energy per kilogram of dry matter (MJME/kg DM).

To grow weaner deer faster than the current industry autumn average of 150 g/day, feed quality should be a minimum of 11.5 MJME/kg DM and in the case of pasture, dead matter should not be more than 10% of the sward. Weaner deer in autumn will grow an additional 25 g/d for every MJ ME/kg DM increase in their diet.

Legumes should make up at least 20% of the total diet, which should be a minimum of 18% crude protein. A high legume (clover or lucerne) content increases feed intake and digestibility, as well as the protein and key amino acid content of the diet. Legumes also fix nitrogen in the soil, reducing the need for artificial N.

Where crops are not possible, or drought is limiting pasture quality, supplement with grain, peas or deer pellets to keep growth rates up.

Weaner deer are highly sensitive to the quality of supplementary feed. So base feed purchase decisions on feed quality (c/kg ME and crude protein content), not just on quantity (c/kg DM). Because of its low digestibility, do not feed PKE to young growing deer.

Hinds versus stags

At weaning, stag fawns are 2-5 kg heavier on average than hind fawns. This is due to their higher birth weights and greater liveweight gain potential.

In autumn, stag weaners grow 20-50 g/d faster than hind weaners. Wapiti-crossbreds or eastern reds grow 25-50 g/d faster than typical NZ red deer.

Feed allowances

During autumn feed a minimum of 5 kg DM/hd/day, not including dead matter, regardless of forage type.

For ryegrass-based pastures, this means putting the weaners in the paddock or break when covers are approximately 2500 kg DM/ha and removing them at 1500-1600 kg DM/ha.

To be a little less technical, use the Speights beer can approach. Put the deer in the paddock or break when the feed is 10-12 cm high (at or just above the top of the can) and remove them when the feed is grazed down to 6-8 cm (just above the top of the stars on the can).

Weaner deer strongly prefer legumes (especially red clover) and herbs (especially chicory) over all grasses. Within grasses, deer prefer those with a high soluble carbohydrate or sugar content e.g. tetraploid, short-rotation/hybrid ryegrasses.

Herb and legume species require specialist management, but in general should be grazed when covers are at 15-20 cm. Remove the deer at 10 cm.

The right forage for your farm

What does the research say?

Research at Massey University in the 1990s found that weaners grazed on red clover and sulla grew 25-50% faster than those fed on typical ryegrass/clover pasture. On chicory/white clover they grew 30-55% faster. On plantain/white clover, they grew 15-20% faster.

Other proven benefits of legume/herb forages in autumn include prevention of facial eczema and ryegrass staggers, reduced parasitism, higher mineral and vitamin B12 status and a heightened immune response.

Recommended forage mixes

Based on farmer and research experience, red and white clover should be sown with herbs for maximum deer performance. These specialist mixtures, sown without grasses, are often referred to as 'rocket fuel' for weaner deer. They are used for between 1 and 3 years before grass is drilled in.

Unfortunately, herbs and most legumes have limited winter growth, so the whole farm can't be turned over to these forages. To ensure year-round feed supply, sow winter-active grasses, brassicas or beets in other paddocks.

Herbs compete in any sward, so despite being complementary in terms of deer nutrition, sow chicory and plantain in separate mixes. Chicory will always give greater deer production than plantain due to its higher feeding value, but has lower persistence and requires more specialist management.

Base permanent and medium rotation pasture mixes on the highly nutritious tetraploid and hybrid ryegrasses preferred by deer, mixed with white and red clover and either plantain or chicory.

Pasture establishment

Sow new pastures and specialist forages for autumn weaner growth in spring. Where cultivation is not possible, consider creating weaner blocks by over-sowing legumes and/or herbs, or re-grassing older pastures – even on hill country. The technology exists.

Well in advance of sowing, get a soil test and consult an agronomist with experience in your district. Get their advice on seedbed preparation, spraying, fertiliser, sowing rates, pest and weed control, and grazing management.

Adjusting to a new feed

Allow 7-10 days for weaners to adjust to any change in diet, including alternative forages or supplements like grain. If you're moving them from a pasture-only diet to a legume/herb diet, continue to give them access to pasture during the adjustment period.

Given the time it takes them to adjust, weaners should ideally stay on a new diet for 6 weeks or longer.

Weaner management

Good nutrition is vital for growing healthy weaners. It boosts the immune response to vaccination and reduces the impact of the stresses of weaning. In addition, specialist forages may assist with parasite control.

To reduce the growth check associated with weaning, adopt best practice weaning management (see links to ***Deer Facts*** below) and ask your vet to include weaner health in your animal health plan.

Separating the sexes?

Consider running stag and hind weaners in separate mobs or having different mobs based on weaning weight. The aim is to prevent larger, dominant animals from hogging the best feed.

Early weaning

Weaning early (mid-late Feb), especially in a dry summer, will reduce total feed demand by 12-20%. Removing the energy drain of lactation will assist hinds to hold or gain body condition important for early, high reproductive performance.

But make sure your weaners are weaned onto high quality feed – they are the class of stock that is most sensitive to poor feed quality. It is also critical for them to be familiar with this feed.

Post-rut weaning

All things being equal, fawns weaned post-rut in early May will likely grow at slightly better rates than those weaned pre-rut, thanks to the milk in their diet.

However, post-rut weaned fawns have limited time to adapt to more intensive weaner grazing systems before winter sets in. Extending lactation is also negative for their mothers' mating performance. It typically results in fawning being delayed by 3-7 days.

More >>

www.deernz.org/deerhub/feeding
www.deernz.org/deer-growth-curves
Hind and weaner feeding app: www.deerfeed.co.nz
DINZ *Deer Fact*: Best practice weaning management
DINZ *Deer Fact:* Drought feeding and management
DINZ *Deer Fact:* Feeding hinds for maximum fawn growth

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