

Growing weaners for the spring venison market

Targeting premium prices

Deer produced for the spring chilled venison market traditionally earn farmers a premium of up to \$1.50/kg from the end of August to early November.

Most of this venison is shipped by sea to continental Europe for the traditional game season which starts in September and ends at Christmas.

In November the schedule starts falling and reaches a low in January because most venison bought at this time needs to be frozen and stored until the next game season.

Exporters and Deer Industry NZ are working to develop year-round markets for chilled venison. However, demand from the traditional European market is expected to continue to reward farmers who can produce well-grown animals for slaughter in the spring.

When breeding for venison it is most profitable to grow deer that reach target weights in their first spring.

To achieve this, careful planning is essential, beginning with the selection of high growth rate sires. The resulting fawns then need excellent nutrition from birth to slaughter at 10 or 11 months of age.

Like all young animals, intensively farmed young deer are at risk from parasites and disease. It is therefore important to have an animal health plan based on veterinary advice. A key part of this is internal parasite control, which has been complicated by the recent spread of drench resistance.

Successful farmers set and achieve target liveweights at weaning, mid-April, end of May, mid-winter and mid-August (see over).

Key points

- European chefs and supermarkets want chilled venison in their autumn, for the traditional European game season.
- Exporters pay a premium of up to \$1.50/kg for deer used to supply chilled venison to this market each spring.
- The preferred carcass weight range for this market is 50-60 kg (90-110 kg liveweight) for deer delivered from late-August to early November.
- High EBV wapiti/elk crossbred and eastern red sires have the ability to produce the fast growing progeny required.
- During the second half of lactation, from mid-January until weaning, the proportion of green leaf in the pasture should be at least 60%. Below this, supplements should be considered.
- Because growth and appetite in deer are highly seasonal, it is critical to feed young deer well at the times they are programmed to grow – from birth to autumn and again from mid-August.
- To reduce the risk from parasites and disease, have an animal health plan based on veterinary advice.
- Under the P2P programme, new year-round markets are being developed for chilled venison. However, the traditional European game market is expected to continue to reward farmers who produce well-grown animals for slaughter in the spring.



Rising yearling stags in September

Young deer are programmed to grow rapidly at this time of the year if they are given the feed they need. In a cold spring with little grass, grain supplements may be economic

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High growth rate sires essential

The progeny of wapiti/elk or eastern red sires with high estimated breeding values (EBVs) for growth rate will have the best chance of reaching the premium carcass weight range of 45-60 kg by the end of October as yearlings.

Based on a dressing percentage of 56% (the range is 56-59%), the target liveweight range for a 55 kg carcase is 98 kg. For a 50 kg carcase, 90 kg is the target.

These targets should be for 80% or more of the mob, because if your target is an average weight, half the animals will fail to meet the cut.

Typically all progeny (male and female) from wapiti/elk crossbred sires will be slaughtered. With eastern red stags some of the females can be used to provide fast-growing quality herd replacements.

Expect to get at least half the hind progeny from a wapiti/elk crossbred sire to slaughter weight by early November.

Feeding hinds and fawns

The rate at which fawns grow before weaning depends on the amount of milk produced by their hind. This in turn largely depends on feed quality.

It is essential to provide fawns with at least 60% green leaf in their diet. Fawn growth can increase about 60 g/day for every 10% increase in the proportion of green leaf.

In cool, moist districts, there is usually enough soil moisture for green leafy pasture growth during the first half of lactation in late spring/early summer.

In warmer, drier districts, grass quality can decline rapidly in this period. To ensure good fawn nutrition, some farmers in warm districts shift hinds and fawns onto lucerne or other specialised pastures soon after fawning.

In most districts during the second half of lactation, from mid-January to weaning, non-irrigated ryegrass/white clover pastures will not provide enough green leaf for optimal fawn growth.

For fawn growth rates of 400 g/day or better, feed lactating hinds on red clover pasture, lucerne, or clover/plantain/chicory mixes. If specialist pastures are not available, feed grain or other high energy supplements to boost growth.

While fawns are still with their mothers, get them used to eating any specialist pastures, crops or supplements you plan to feed them after weaning. This will increase intake and growth rates post-weaning.

Aim for a stag fawn weaning weight in late February of 55 kg for typical reds and 62 kg for wapiti crossbreds.

To achieve a fawn growth rate of more than 400 g/day requires:

- Green leaf content >60% (45% will give <300 g/day)
- Feed energy content >10.5 MJ ME/kg DM (ideally 11 or more)
- High quality component in the diet >15% (legume and/or chicory/plantain)
- Pasture mass >2500 kg DM/ha

Nutrition after weaning

Weaners continue to have a potential for high growth rates in March/April. It is critical to give them the best quality feed available at this time, rather than saving this feed until late autumn when deer appetites and growth rates fall.

Weaner growth rate targets for this period are listed in the table opposite. These figures are conservative.

Weaners being fed on actively growing autumn pasture or summer crops (ME 11+ MJME/kg DM) can grow 300 g/day or better during March/April.



Summer greenfeed crops can provide excellent nutrition in late summer and early autumn when ryegrass-white clover pastures are under pressure

Management tips:

- Feed specialist pastures such as red clover, lucerne and chicory for maximum growth rates
- Frequently shift mobs to new breaks or paddocks so they can pick the highest quality diet on offer
- Manage pasture covers so they are in the 1500-2500 kg DM/ha range. Below 1800 kg DM/ha, intakes fall. Above 3000 kg DM/ha, feed quality declines
- Use other livestock classes to maintain high pasture quality. Never force weaners to clean-up pasture as this will reduce liveweight gains.

If you fail to reach target weights in autumn, the opportunities for catching up in winter are limited.

Daily feed requirements for weaner deer fed average pasture during autumn

**Energy requirement in MJ ME/day
(Anticipated growth rates in brackets)**

Liveweight	Stags	Hinds
50 kg	15 (150 g/d)	14 (120 g/d)
60 kg	18 (190 g/d)	16 (130 g/d)
70 kg	21 (220 g/d)	19 (160 g/d)
80 kg	23 (250 g/d)	21 (180 g/d)
90 kg	26 (300 g/d)	

Weaner growth in winter

Weaner liveweights in the first week of June are a good indicator of eventual slaughter dates and carcass weights in spring. Young stags should average about 72 kg (typical reds) and 88 kg (high EBV wapiti/elk crossbreds and eastern reds).

Budget on a somewhat conservative 50-70 g/day growth

Wapiti/elk crossbred weaners in mid-winter

This is not the time, when appetites are low, to expect a growth rate response from expensive feed supplements. However it is important to provide enough feed of sufficient quality for these deer to meet their daily winter maintenance needs

over the winter (mid-May to mid-August) in all weaners. However if you have selected an elite early finishing group, growth rates of 100-120 g/day, are possible under good weaner growth and management systems, bearing in mind the challenges of the winter climate.

Management tips:

- For good weaner growth, provide 4-6 kg DM/weaner/day of reasonable quality pasture or winter crop
- A post-grazing residual of 1000 kg DM/ha will still give reasonable growth rates
- Shift weaners frequently to avoid muddied pasture, as this will have a bigger effect on feed intakes than low residual cover
- Feed cheap nutritious supplements like baleage. High quality supplements do not become economic until mid-August
- If bulb crops are fed for more than 60 days, provide supplements like pea or lucerne hay to boost protein in the diet
- Separate weaners on size as the big ones will need more feed and will grow faster.

Rising yearling growth in spring

From mid-August, deer appetites increase markedly, usually faster than the increase in spring grass production.

Given the same pasture allowance, weaners will grow 4-6 times as fast in spring as they did in winter.

At this stage it is economic to increase the pasture allowance or, if pasture is short, to add grain or other cost-effective supplement to the diet. Energy intake is key.

The push is now on to achieve stag weights during the chilled season of at least 80 kg in typical reds and 110 kg in high EBV wapiti/elk crossbreds and eastern reds. Aim for 80% to achieve the target weight.

Deer that have been on crops adjust quickly to spring pasture, which tends to be of high quality, regardless of the species mix. In late spring, especially in warmer districts, pasture quality may decline in response to higher temperatures. If so, feed red clover/chicory/plantain pasture for higher growth rates.

Management tips:

- Provide 6-8 kg DM/weaner/day of high quality feed for maximum intake and liveweight gain
- Plan to have good pasture covers available from mid-

Target liveweights for chilled season production (kg)			
High EBV Herds*		Typical red deer	
Male	Female	Male	Female
Weaning (late February)			
62	63	55	50
Mid-April			
75	72	64	56
End of May			
88	81	72	61
Mid-winter			
93	86	75	64
Mid-August			
98	87	80	64

*High EBV wapiti /elk crossbreds and eastern red deer

- August, especially for high EBV weaners
- Target pasture covers of from 2500 kg DM/ha (in) and 1500 kg DM/ha (out)
- Draft mobs by size to enable bigger animals to be fed more, as they will grow faster
- Manage pasture quality using other stock classes.

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DINZ Deer Fact: Feeding hinds for maximum fawn growth

DINZ Deer Fact: Drought feeding and management

To calculate growth targets and venison income from different finishing options: www.deernz.org/deer-growth-curves



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