Wapiti/Elk

Similar to other species, if the calf has not had colostrum and it cannot be obtained from another Wapiti/Elk cow, it can be obtained from a goat, sheep, cow, or from a substitute colostrum powder.

There are different opinions on the most appropriate milk for feeding the orphan calf over its first 8-12 weeks of life. Options include lamb milk replacer, cow’s milk and goat’s milk.

A rigid feeding schedule for at least the first 8 weeks as described by Haigh [11] is shown in Table 33. Haigh reports that calves should be started at 250 ml per feeding and should gain anywhere from 0.5-1 kg/day. Once the calf is approximately 40 days old it can be started on good quality hay and by 14 weeks should be weaned entirely to grass and concentrates.

<table>
<thead>
<tr>
<th>Week</th>
<th>Feeding rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5 feeds/day</td>
</tr>
<tr>
<td>5</td>
<td>4 feeds/day</td>
</tr>
<tr>
<td>9</td>
<td>3 feeds/day</td>
</tr>
<tr>
<td>11</td>
<td>2 feeds/day (could wean here)</td>
</tr>
<tr>
<td>13</td>
<td>1 feed/day</td>
</tr>
<tr>
<td>14</td>
<td>Wean to grass and concentrates</td>
</tr>
</tbody>
</table>

Table 33: Feeding Schedule for Hand Reared Wapiti Calves

Rusa Deer

Requirements of Rusa deer fawns are similar to other species. Dryden [24] reports that it is difficult to rear fawns that lose their mothers two weeks or more after birth. Like most orphans, rearing Rusa deer orphans is more successful if the animals are given frequent small feeds, especially in the first weeks of feeding.

Successful rearing has been achieved [24] by feeding four times per day for the first four weeks of feeding, three feeds per day until week nine and then twice daily until week twelve. Intake should be about 400 to 600 mls/day for the first two weeks and gradually increase to a peak intake of 1000 to 1200 mls per day in the 8th or 9th week before declining.

Fawns are likely to begin consuming small amount of forage from four or five weeks of age and by about seven weeks of age will consume appreciable amounts [24].
WEANING

Weaning is the term that describes the permanent separation of an offspring from its mother. It is the time that begins when the offspring no longer has an opportunity to take milk from its mother and so must meet all of its nutritional needs from pasture or supplementary feed.

Weaning management is closely linked to mating management and subsequently calving/fawning management. To increase the likelihood of pregnancy early in the mating period, dams need time to recover body condition after completing their lactation and before they are joined with sires.

If dams do not conceive when first joined with sires the calving/fawning period can become extended and calving/fawning management becomes more difficult.

When to Wean

Research has shown that deer are adaptable to various weaning times although the success of any of the options is dependent on meeting the necessary management requirements.

Common commercially practical options include:

- Pre-rut weaning
- Mating weaning
- Post-rut weaning
- Soft weaning
- Fence-line weaning

Research suggests that provided the dams have suitable body condition and access to adequate nutrition, the time of weaning has little effect on growth of offspring or on conception rates of dams. If the body condition of dams is less than score three at the time of joining, their conception rates may be less than ideal.

Research with most extensively managed livestock including deer shows that reproductive performance and ovulation rate, increases when animals are fed so that their body weight is increasing at joining. The technique of feeding to ensure this weight gain is commonly described as managing the animals on a ‘rising plane of nutrition’ prior to and during mating.

However, as is the case with all extensively managed livestock, there are some management advantages for pre-rut weaning that relate to weaner feed management, health programs and paddock management.

Pre-Rut Weaning

Pre-rut weaning usually occurs from late February to early March in Southern Australia.

Advantages

- Allows time for hinds to recover body condition after lactation and before joining that can help:
  - Increase early pregnancy rates
  - Concentrate the calving/fawning period (all calves/fawns dropped within a six to eight weeks period)
  - Generally mild weather conditions help reduce stress for calves/fawns that are associated with separation from their dams
  - Allows for specialist management for both weaned animals and their dams especially those related to:
    - Feeding requirements
    - Animal health programs
    - Animal body weighing
  - Allows time to select hinds/does to be included in the coming year’s breeding program and to cull surplus stock

Disadvantages

- Requires availability of good quality feed
- If supplementary feeding is used, weaners must be introduced to the feed well before weaning while they are with their dams. This will help them to become accustomed to new feed.
- Calves/fawns born towards the end of the calving/fawning period experience greater stress than they would if weaned later
- Management of feed changes for weaners must be undertaken carefully to avoid health problems
- Mixing very small offspring with their mothers in yards increases risks of injury to the young so requires considerable care and patience

Mating Weaning

Mating weaning usually occurs in late March in Southern Australia.

Advantages

- Weaning at this time means the youngest offspring are older and so are a little less affected by the stress of weaning
- Dams and offspring are only handled once
- Weaners are bigger and therefore at less risk from yarding with their dams
Disadvantages

- Dams must be fed to ensure they have an opportunity to recover body condition before joining and be on a 'rising plane of nutrition' when joined
- Some dams may not recover sufficiently to conceive at the first opportunity
- May extend calving/fawning period
- Delays in beginning animal health programs for both weaners and their dams
- Vaccinations
- Internal parasite drenching programmes
- Loss of ideal weather conditions for weaning may:
  - Increase separation stress, particularly for the weaners
  - Increase depression of weaner growth rates after weaning
- Requires handling mobs including stags in the rut

Post-Rut Weaning

Post-rut weaning usually occurs from late May to early June in Southern Australia.

Advantages

- Weaned stock tend to finish autumn in good condition and so enter winter in good condition and are likely to reach target weight at 15 months
- Dams and offspring are only handled once
- Weaners are bigger and therefore are at less risk from yarding with their dams

Disadvantages

- Calving/fawning period tends to be longer
- Larger paddocks or more mobs are necessary for better pasture management
- Weaning management requires consideration of pregnant hinds/does
- If management programs for either dams or offspring requires stock to be yarded, all of the animals in each mob must be yarded each time

Soft Weaning

Soft weaning refers to the gradual removal of dams from the herd over a period of 1 to 2 weeks [9].

About one third of the dams are removed at the start of weaning, another third are removed a few days later and the remainder a few days later again.

Advantages

- Weaned stock remain in a familiar environment
- Remaining dams have a calming influence on weaned animals
- Repeated handling increase human contact and reduces associated stress

Disadvantages

- Weaning period tends to be longer
- Risks of injury from repeated yarding

Fence-Line Weaning

This is another form of soft weaning where instead of having offspring completely separate from their dams, they are separated into adjacent paddocks and allowed a small amount of contact through the fence.

Advantages

- Reduces stress associated with weaning
- Decreases incidence of offspring attempting to escape

Disadvantages

- May increase fence damage
- May increase injury from trying to get through fences
- Requires fences that are both calf/fawn proof and hazard proof (QA implications)

Weaning Management

Where practical offspring should be tagged as soon as possible after birth to ensure offspring are matched with their dam. However this is often impractical, especially on commercial farm running large numbers of breeding females and where dams aggressively protect their young.

Common management practices undertaken at weaning include:

- Dam/offspring relationships to be identified
- Ear tagging or application of other identification
- Vaccination of dams and their offspring
- Drenching of dams and their offspring

Generally the most practical and efficient way to undertake management programs required for weaners involves yarding dams and their offspring two to three weeks before weaning. Offspring can be treated as required by planned
management programs in the yards and allowed to return to a paddock with their mother. This allows offspring to recover from stresses caused by tagging and other treatments before they are exposed to stresses of weaning.

An obvious disadvantage of this system is that dams and their offspring must be mustered twice within two to three weeks while an obvious advantage is that offspring are not subjected to all of the stresses associated with weaning at the same time.

Similar to most other commercial grazing livestock management, stresses to weaned animals can be reduced if they are weaned into the paddock that they are most familiar with, that is generally the one in which they were with their mother immediately prior to weaning. Some people encourage running several quiet, dry adult females with the weaners to assist in settling the weaners and to aid in future herd control. This is a simple and effective management technique.

At weaning there should be visual separation of dams from calves. Weaned calves can be hand fed in yards or other restricted, sheltered area for a week or two, before they are turned out to good pasture. Daily contact and feeding of the weaners is an excellent means of quietening deer and accustoming them to human contact and to the handling facilities.

**Red Deer Weaning**

Red deer calves can be weaned at 30-35 kg body weight, at about 3 months of age. Research in New Zealand indicates that if calves are weaned before March 1st, reduced stress on the hinds can increase early conception rates. Early weaning also allows calves to be custom fed to maximise weight gains and can also have an influence on temperament by removing them from the influence of badly behaved hinds. However late calves and calves not reaching 30 kg should not be weaned until after the rut. Pre-rut weaning requires a higher level of management than post-rut weaning and is dependent on calves being born early in the season.

If calves are not weaned before the rut they will usually wean themselves at 4-6 months of age. Hinds in poor condition, and possibly those nursing large male calves often decline in milk production faster than do well-nourished mothers.

**Fallow Deer Weaning**

Optimum weaning time will vary according to the farm. Traditionally, Fallow deer fawns are weaned at between six and seven months following the rut although with adequate nutrition they can be weaned at three to four months (pre-rut). Pre-rut weaning will allow does to gain weight prior to joining, increase conception rates and shorten the fawning period.

Weaners should be provided with best available feed (either in the paddock or in yards) and should be separated from visual contact with their dams. They will become accustomed to yards and human contact if they are frequently handled or fed in the yards at weaning.

**Wapiti/Elk Weaning**

Wapiti calves can be weaned at 50-80kg body weight, at about 3 months of age. Hybrid calves are very demanding on their mothers and general recommendations are to remove the calves in early March. This allows cows to recover their body weight quickly, and experience a high and rising plane of nutrition for joining. Early weaning allows calves to receive specialised supplementary feed to maximise weight gains and removes them from the influence (temperament) of badly behaved cows. However late calves and calves not reaching 45kg should not be weaned until after the rut.

Early calves are important to venison production programmes as they enable progeny to be off the farm with excellent weights when they are less than 12 months of age and before the spring flush of pasture has dried off. Target weights for males should be 130-145 kg. Pre-rut weaning requires a higher level of management than post-rut weaning and is dependent on calves being born early in the season.

If calves are not weaned before the rut they will usually wean themselves at 4-6 months of age. Cows in poor condition, and possibly those nursing large male calves often decline in milk production faster than do well-nourished mothers.

**Rusa Deer Weaning**

Rusa calves are weaned from 4 (if controlled) to 7 (if natural) months of age at a minimum live weight of around 25 kg for Javan and 18 kg for Moluccan Rusa. Weaning rates (calves weaned per hinds mated) generally exceeds 85% for mature hinds, and 75 to 80% for first calving two-year-old hinds.

Weaner animals should be segregated from main mobs and preferentially fed post-weaning. During the weaning period, young deer should be trained and accustomed to yard handling and laneway design, concomitant with supplementary feeding to enforce training and handling attributes. Animals can be ear-tagged, sexed, weighed and vaccinated during this time.