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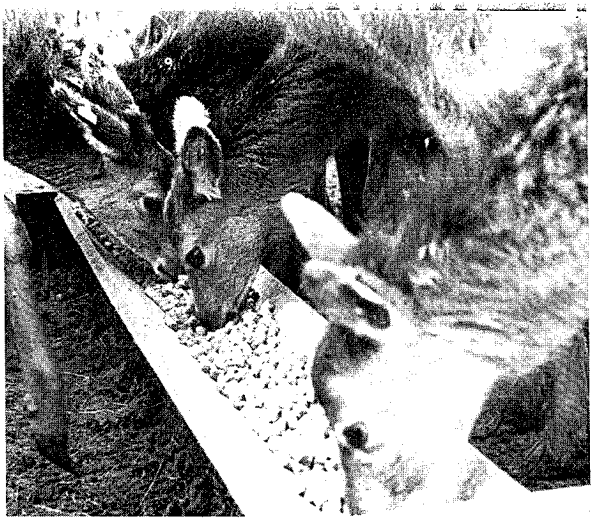
To wean or not to wean... is it a question?



Before or after mating

by Dr G.H. Moore, Invermay.

Weaning is so much an integral part of our sheep farming system in New Zealand that one might be forgiven for suspecting that deer farmers, most of whom gained their farming experience with sheep, might adopt weaning of fawning automatically without serious though to the advantage or disadvantages.

"TDF" sought the views of a number of deer farmers on the subject and these have been incorporated into the notes which follow the report by Geoff Moore from Invermay regarding their experience with weaning.

Weaning before or after mating has both advantages and disadvantages, and these will vary between deer farms of differing size, type, stage of development and tameness of stock.

WEANING BEFORE mating, providing there are sufficient paddocks with feed, should have a flushing effect on the hinds for mating through removal of the nutritional demands of lactation. The result could be earlier calving and an increase in calving percentage.

Observations on a population of wild Scottish hinds have shown that lactating hinds can have a much lower pregnancy rate (50 per cent) than non-lactating hinds (92 per cent). This difference is attributable to liveweight and level of condition at mating, a consequence of poorer nutrition than is found on most New Zealand deer farms. **No scientific trial has been carried out to determine the effects of early versus late weaning on subsequent reproductive performance of hinds and calf growth. This requires equal pasture feeding opportunity for weaned and unweaned calves, and it is planned to investigate this important topic at Invermay.**

Early weaning facilitates the control of lungworm in calves. Where calves are likely to develop heavy lungworm burdens, early weaning allows easier yarding of calves every 21 days over the mating period for drenching and shifting them onto 'clean' pasture.

Yarding of mating groups containing beligerent stags to drench calves can be dangerous and difficult, because the stags oppose movement of their harems, particularly through gateways, and brutal fighting results from confining the stags in yards. Elite stags could be seriously injured, affecting mating performance, and any stress through yarding on the hinds may affect conception rates.

An alternative to oral drenching may be feeding an anthelmintic mixed in a pelleted ration to calves with a mating group of hinds. However, with large groups it is difficult to ensure all calves receive an adequate dose, because of feed acceptability or competition with the hinds, although hinds may transfer some anthelmintic via milk to their calves.

Mating management on intensive farms may necessitate early weaning. On intensive farms with paddocks of less than about 8 hectares, it is advisable not to have more than about 50 hinds per mating group. In paddocks this size one breeding stag will take control and defend all the hinds against other stags. While the master stag can hold two hundred hinds and prevent other stags from serving them, he cannot settle all of them, with resulting reproductive losses.

Obviously weaning before mating is necessary if the hinds in large calving groups are to be split into smaller groups for single-sire mating, unless hind-calf relationships are known from earlier tagging and observations of suckling.

For these reasons, earlier weaning on intensive farms can be necessary and beneficial.

Requirements for mating management differ as farms become more extensive operations. On extensive farms where paddocks are large and the country is

broken, the hinds tend to form into several harems at mating in a more natural way and there is not the problem of stags holding more hinds than they can mate successfully.

In practice, on an extensive farm it can be difficult to successfully muster all hinds and calves for weaning before the rut. Leaving weaning until early winter allows the herd to be gradually lured into smaller paddocks and quietened with the aid of supplementary feed. The hinds will teach the calves to feed on supplements before weaning occurs, therefore minimising any weaning check due to an abrupt change in diet.

However, there is no real advantage in leaving weaning until after mating solely to have hinds teach calves to eat supplements. This can be done equally well before mating if necessary and practical.

The real advantage in hand feeding supplements such as lucerne hay and nuts prior to weaning, is to tame the herd to make the operation less stressful as well as allowing some adjustment of the calves to a changed diet before weaning.

Considering that calves commence eating some grass from about two to three weeks of age, weaning them onto grass before mating does not involve a complete diet change, and they can be gradually introduced to feeding on supplements later.

There would seem to be little advantage in not weaning at all, or at least not separating calves after they have been weaned naturally over their first winter, unless the deer herd is very small. When a farm contained 10 or 20 hinds with calves it may not be practical to wean because of requirements for subdivision fencing and pasture control, but there are behavioural considerations also.

Weaner hinds need to be mated separately as yearlings, because their introduction to adult hind groups for mating can lead to them being excessively victimised and chased away from the harem by older hinds. Obviously, if by weaning the female calves it becomes necessary later to mate the hinds in two groups, the maximum use of the best breeding stag cannot be made.

On a small deer unit it could be preferable not to separate young females from their dams, but young stags need to be eventually run separately from hinds if they are to be velveted after calving commences to avoid disturbance to the hinds and calves when yarding. Also, the yearling stags need to be run separately from the hinds over mating to avoid excessive fighting and victimisation of them by the breeding stag.

Other advantages in weaning early, as opposed to not weaning, relate to the taming and preferential feeding of the young stock. Weaning calves removes them from the influence of the nervous, flighty hinds, and with hand feeding, quieter farm-bred stock can be produced.

Calves need to be well fed over their first winter to minimise health problems, and the females in particular need to be well fed over spring-summer to achieve a liveweight of 68 to 70 kg for successful mating at 16 months of age. On the other hand hinds entering winter in good condition can afford to lose some condition, and it is advisable not to overfeed hinds in late spring prior to calving to minimise possible calving difficulties.

The manner in which calves are weaned is important because of their hypersensitive and easily-stressed nature. Great care is required at weaning to ensure they suffer a minimal check in growth.

Yarding hinds with calves for weaning is an operation requiring even more care than yarding stags for velveting. Laneways need to be calf-proof, and care is required to avoid any calves breaking back, as on their own they quickly become panic-stricken and virtually impossible to yard. If some calves break back, a few hinds should be let back to join them before attempting to yard them.

Once yarded the hinds and calves should be penned in uncrowded groups and left undisturbed to settle down for five to 10 minutes. The time they should be left to settle depends on how quietly they are yarded.

The deer should not be left too long before drafting off the calves, because hinds can victimise others' calves with their teeth and forelegs, particularly when they are closely bunched. To minimise this source of stress the calves should be drafted off as soon as the hinds settle down, leaving ear-tagging, drenching, etc., of calves, and drenching, udder checking, etc., of hinds, until later.

It is important to have yard pens constructed such that calves cannot see hinds or other calf groups in adjacent pens as they can injure themselves attempting to penetrate gaps.

The weaning paddock should be at least a paddock away from the hinds to prevent undue fence pacing by both calves and hinds attempting to rejoin. Ideally, the weaning paddock should be out of sight of nearby deer, and the calves kept in the yards for several days in a feed lot situation to minimise separation stress. This will prevent excessive fence pacing, and allow calves to become more used to humans.

The release of weaned calves into the weaning paddocks needs to be done quietly, with a minimum of disturbance. Where possible, calves from the tamest group of hinds should be weaned first, to provide a nucleus of quieter calves in the paddock which later weaners will join up with, rather than head for unseen fences. Otherwise several tame deer can be used to advantage by having them in the weaning paddock prior to the realease of weaners.

The use of these quieter deer is of more value when the weaners have come from larger paddocks and have yet to be fence trained in small paddocks, and in weaning the more flighty fallow deer fawns.

Farmers' views

Bob Swann— On Bob's farm deer are run on hill country under fairly 'natural' conditions; since the herd is not 'interfered with' any more than necessary, fawns are not weaned until late winter (say August). Winter conditions are severe and this farmer suggests "the hind is the best teacher in getting fawns to take hay, grain and nuts". He has tried weaning in autumn but finds the stress of weaning early a disadvantage. Early-weaned fawns did not come through the winter as well as those left with the hinds. But late-winter weaning ensures the yearlings settle well, become reasonably tame, and can be kept together as a mob for mating at 15 months.

Bernard Pinney— On this South Island farm where winter conditions are very severe, fawns are weaned last week in March/first week April. At that time fawns are tagged, ear marked, vaccinated and drenched and put out in a mob on their own. The object is to give hinds a chance to recover over winter and to do fawns as well as possible. The benefit is the 'civilising' effect on the young stock and the good growth rate achieved. "Early weaning has been a major factor in creating a quality herd, in combination with good feeding and heavy culling of anything other than top quality stock".

Michael Atkinson— On his Wairarapa farm Michael's fawns are weaned in March prior to the roar. Hinds are brought into the yards with their fawns in small mobs only, as fawns can get trampled in large mobs. They are separated and returned to new paddocks. It is considered that fawns can be done better on separate pasture where they are not competing with the hinds for the good feed. Also, fawns tend to quieten better when away from the hinds. The fawns of both sexes are kept in one mob, given supplementary feed, and drenched every three weeks. Yearling hinds are mated as a separate mob.

Allen Ford– As Allen points out he has "tried just about all systems. In the early years, with only a small herd, no weaning was practiced and the fawning rate seemed just as good in later years although no accurate records were kept.

"A lot depends on the quality and size of facilities available on any particular farm. To wean early, say mid-March, it's advisable to take fawns several paddocks away from their dams, out of their sight and hearing; even then they will walk the fence for a week at least.

"The main advantage as far as I can see is that the hinds may settle down better and mate by the end of March. The disadvantages are a higher rate of loss of fawns, the need for more skilled stockmanship, and the fawns go back in condition until they learn to eat supplementary feed (there is no better supplement than their mother's milk). And we have found them difficult to handle at that age.

"There is scope for shed feeding fawns at this age but there will still be a higher rate of loss than if they are left with their hinds. In view of these factors I prefer to leave weaning until after mating – say June, or even July if feed conditions are good, which is all-important. The advantages in this are that the hinds and fawns have no early upset and they are following their own natural calendar more closely. By this time too the fawns will have been yarded several times, for drenching and so on, with their mothers, and by June the fawns will have learned to take supplementary feed along with the hinds, and to be moved from paddock to paddock without bashing the fences.

"There is some disadvantage in that it is a little more difficult to sort hinds into suitable mating mobs – it's a matter of having several paddocks open and shutting the gate quietly in order to separate off a bunch of hinds with their own fawns. Also it's probable that a hind with a late fawn will, because she is still feeding it under this system, come late to the stag again.

"A great deal depends on personal experience, the size of the enterprise, and the feed available in any particular year. Last year I weaned in the last week in May, but I had started feeding some nuts and maize to both hinds and fawns from the beginning of May so that by the time they were weaned the fawns were taking the supplements well and there was no set back at weaning."

Bruce Lindeman at Hastings does not wean in the generally accepted sense of total separation of fawns from dams/adult. "In fact we have never purposefully made a separation of fawns, juveniles, juniors and adults. Weaning in our sense involves the reversal and separation in July of hinds with hind fawns, and hinds with stag fawns, and this is carried out as follows.

"We wean only in the sense of removing a fawn from its on mother, so the hind fawns are moved north, or stay north if they were born there, and likewise with stag fawns to the south. The hinds which bore stag fawns are placed with hind fawns, and the hinds which bore hind fawns are placed with stag fawns.

"To relate the mobs to available feed, the numbers are balanced to approximately equal by juggling the adult and junior stag population. Last year when we had a much lesser number of hinds with hind fawns, there were a lot more adult and junior stags in the north than in the south.

"Weaning in this manner produces only very minor problems of stress because the very possessive 'strong motherly instinct' hinds which have born hind fawns will adopt one of the pining stag fawns, and vice versa, and only one instance has occurred in the past three years where action had to be taken to put an individual fawn back with its mother because of obvious excessive stress, and likely death.

"We wean in this way for two reasons. I believe we get substantially better growth in our fawns by leaving them with the mothers for what is generally accepted to be a longer term and because with supplementary feed in the winter it is easier for the mothers already used to supplementary feed to teach the youngsters. Also, because in both areas there are reasonably quiet hinds, the youngsters learn that their keepers are not to be excessively feared.

"We have not yet had a fawn death and I put this down to:–

- Not weaning early (which I am sure produces stress deaths),
- weaning in the manner that we do."

Graham Christie, manager at Waioneke Park, reports on their experience of weaning with fallow.

"The main reasons for weaning are for stock management purposes, to be able to give weaners preferential feed, and to treat them like any other young livestock.

"We weaned fawns at Waioneke Park in 1980 at three different stages. The first mob was prior to the roar at the end of March. We lost some from stress with duodenal ulcers, but found that this can be overcome with oral medication and good management techniques.

"We weaned our second mob in June with no problems and the stress factor was prevented.

"In October we weaned a large mob of 300 wild hinds and fawns for the first time. The weaners were harder to handle than the previous mobs but they quietened down well with lots of handling. They appeared to fret for a longer period than the younger weaned fawns.

"We intend to wean all our fawns in March of this year using the following methods:–

1) Hinds and fawns will be put on a nut diet one week before weaning.

2) On weaning, hinds will be dosed with a worm and stress drench and put as far away as possible from the weaners.

3) The weaners will be dosed the same and stay in the yards with nuts and water for two days.

4) They will be then let out in small paddocks with docking scrim round them, and will be fed nuts for up to two weeks.

5) They will be yarded frequently and handled, and will get oral medication for stress twice in the first week of weaning.

6) Worm drenches will be given every three weeks during the winter and they will be rotationally grazed ahead of the hinds.

7) We will try putting some of last year's trained weaners with the young fawns to aid the quietening process.

"After our experiences in 1980, we feel confident that by using these methods and with quiet handling and good management, we will have no problems.

"The heavier live weights of the earlier weaned fawns in the spring has convinced us that March weaning is desirable.

"Information on the drenches and drugs used on Waioneke Park in 1980 has been widely circulated among veterinarians, and deer farmers who are weaning fawns could consult their local vet."