



FLOWERDALE ESTATE ALPACAS

Nutrition

THE MALADY LINGERS ON

Feeding in a drought

When feed becomes scarce or of poor quality, remember two things:

- (a) Body condition is like money in the bank. If your animals lose body condition you have to pay more to replace it than you do to maintain what they have already. Animals also can get by with a lower feed intake to maintain in body condition than they need if you are trying to put condition on them.
- (b) If feed becomes scarce or of poor quality, an expectant or nursing mum will sacrifice her own reserves to provide for the foetus or cria. This can lead to mum developing deficiency disorders, even though baby seems fine.

We have been supplementary feeding since January. Our expectant mums have maintained body condition, but the cria are late in coming and are 7.5 to 8 kg, which is on the large size for us, and mums seem to be more exhausted after giving birth. The cria at 6 months are in good condition but are only 26-30 kg rather than the 34-40 kg we would normally expect. I blame this on a lack of good quality pick for them to browse on, rather than a deficiency of milk production by their mums. They start nibbling on herbage at 4 days of age, so if there is no good quality pasture they are not getting as much "blinner" (breakfast, lunch, and dinner) between feeds from mum.

I have also had 10 or so phone calls from owners with animals affected by Vitamin D/Phosphorus deficiency over winter and early spring. Ages ranged from 3 to 9 months, but I have seen cases in 15-18 months old wethers. The males and wethers, on the other hand, have done well with no supplementary feeding. Our Monaro country will run 1 dry sheep to the acre, and we are running 2 males or wethers to the same area, which would confirm the contention that alpaca are more efficient users of unimproved pasture than sheep.

At shearing, all groups of alpaca had a staple length as long if not longer than last year, and we are still waiting for micron results to see if we have achieved any "drought fineness". So why do we have to supplement Mums and Bubs, and not males and wethers? That's because Mums and Bubs need a protein level of 14-16% in their diet, whereas wether and other non-reproducing animals can get by on 8%.

A very good indication of what drought can do to pasture availability and protein and mineral content is the paper of Blood Minerals, Trace Elements, and Vitamins of Alpaca and Sheep Grazing on the Same Pasture, published in 1999 by RIRDC in their handbook on Australian Alpaca Fibre. An experiment was run for 21 months from November 1995 to August 1997, and included a 12 month period of good rainfall and plentiful pasture, followed by 9 months of low availability of green herbage and a poor autumn break in May, leading into a winter such as the one just gone. In the first 12 months, from November 1995 to November 1996 ("the good Season") protein levels in the pasture ranged from 11.5% in December to a low of 9% in February, and after a good autumn break the levels rose to 22% in July. In "the bad season" of November 1996 to August 1997 the protein level of 7.6% in November dropped to 4.7% in February. The level didn't go above 11% until after June, when the effect of the weak autumn break in May became apparent. Phosphorus levels in the pasture were similarly affected. In the "good season" the lowest level was 1.7 gm/kg dry matter (DM) in February but was 2.5 gm/kg DM or more for the rest of the season. In "the bad season" the Phosphorus level was 1.1 mg/kg DM in February and did not rise above 1.7 gm/kg DM until after June.



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The paucity of protein, Phosphorus, and other components was exacerbated by the reduction in total pasture available. The quantity of vegetation measured as grams of Dry Matter/square metre of paddock in “the good season” ranged from 134 gm DM/sm in February down to 56 gm in July and picked up to 88 gm DM/sm in September. Then came “the bad season” when the DM/sm dropped to 64 gm in February and kept diminishing to 14 gm DM/sm in July. These figures should give a dire warning to owners who overstock their property.

Where do you stand in a Good Season / Bad Season scale?

Here at Berridale we had a weak late Spring break last year, and that, plus some intermittent showers, kept a green flush for us until the weather that accompanied the Canberra fires in January nuked everything. That is when we started supplementary feeding. We had no Autumn break, and up until the end of September have received 240 mm of light rain, heavy dew, and the occasional snow flurry, and we are in a 600 mm rainfall area! There is a green flush that is allowing animals to gain weight, but my long-term resident mentors tell me that if we don't get good heavy steady soaking rain by the end of October, Summer and Autumn pasture (and water levels) will be non-existent.

My Veterinary Newsletter tells me that “worry is the interest you pay on trouble before it is due”, but I believe that forward planning and contingency planning is time and effort well spent, and is infinitely preferable to decision-making two months too late.

So what are some options?

The matings we have done between last September and March will result in cria that will need some feeding, as well as supplementary feeding for mums. If we get further rain any wethers and inactive males and females should cope with an 8% protein level in the pasture, supplemented by dry seaweed feeders to make up any shortfall in mineral and trace element supplies, provided that we can avoid over-grazing the pasture we have available to us. It is therefore most important that we do all that is possible NOW, rather than wait until February and wished that we hadn't waited.

Agistment. Ask around locally to see if neighbours or others have fenced land that they would allow you to use. If you have a small herd, a horse paddock will be sufficient to take the grazing pressure off your own paddocks. Many such people will not charge for this accepting the novelty of having alpacas on their place as sufficient recompense, but you should accept responsibility for maintaining adequate water, and do not assume that out of sight is out of mind. Turn up regularly to check fences and water; offer the poo to the owners for their garden, and rake it up for them if necessary.

The Long Acres. If you live on a dead-end street or a quiet country road, approach the Rural Lands Protection Board or your Council to get permission to graze some of your animals on the roadside. You will need to supervise them and to provide warning signs at each end of the chosen area. You will also need a liability insurance policy which covers motorists and others if your alpaca decide to argue with them.

Hand-Feeding. Bear in mind that some alpaca are pushy survivors while others are shyer and have better manners. You may need to provide an area of restricted access for this latter group, or for Mums and Bubs that may be in a mob of non-pregnant, non-lactating females or weaners. Likewise, you may wish to give a supplement to your stud male that is not necessary for companion wethers. The simplest solution is two 10ft. gates in a corner of the paddock arranged to make a 10ft. square yard. A couple of steel posts makes it quite rigid, and you should have one in each paddock as a basic part of your animals husbandry equipment;



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it is often quicker and easier to entice a small herd of animals into such an enclosure than to drive them up to a central set of yards.

Chaff vs Hay. I know that 25% of ingested feed should be longer than 10cm to allow for normal regurgitation and intestinal function. For this reason we invested in a load of lucerne hay. It is much appreciated by the alpaca, but we now have the best mulched paddocks on the Monaro because the picky critters will NOT eat the stalks. I am told that alpaca eat ALL of the clover hay. An alternative is to feed lucerne chaff in bowls/containers and let the animals forage among the tussock for their long component. An additional advantage is that the steaming process of making the chaff may kill some of the thistle and other seed that comes with baled lucerne.

To breed or not to breed. If you have more alpaca than your paddocks can support, or you are finding the cost of supplementary feeding too daunting, you should seriously consider not mating or remating some or all of your females until the drought breaks and feed is more plentiful and cheaper. Non-lactating, non-pregnant females can coast along on 8% protein like wethers, compared to the 14-16% protein required for late pregnant and milking females, not to mention the crias and weaners. Apart from having fewer mouths to feed, the option allows you to use feeds of lower protein content, such as oaten or wheaten chaff or hay, or meadow hay. This option requires thinking through, because you cannot expect to get a return to optimum fertility the day after the drought breaks. It may take 4-6 weeks of improved nutrition and elevated protein levels before a gal will be ready to hold a pregnancy.

Another point for consideration is the nutrition of your stud male under this option. Under other forms of management it is assumed that there will be sufficient pasture pick, plus seaweed supplementation, to allow fertility to be maintained, even in non-working periods. If your herd is going to be put on a ration that contains no green hay, Vitamin A levels may drop to a level where sperm production and viability is adversely affected. In this case it would be advisable to give your male an injection of Vitamin A D and E every 2 months, at the dose rate used for cria.



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