

# Deer in velvet



By ANN CLIFF

**Twenty-five years of experience were distilled into a couple of hours recently, when I visited Ross and Diane Lawrence on their 90-acre farm in the rolling hills of Gippsland, Victoria. The Lawrences breed Elite Red Deer, from which they harvest deer velvet for use in traditional and natural medicine. Their knowledge and experience is immense and while I was there, they generously shared a little of it with me.**

**A**fter a career in the RAAF, Ross was looking for a change and they both wanted a rural lifestyle. At that time, the 'sunrise' industries were emerging, including deer farming. They both love animals and this type of farming attracted them immediately when they visited deer farms, particularly when they saw how well the industry was going in New Zealand.

There was of course a lot to consider; setting up a deer farm is not cheap and it also requires a high level of skill. They knew they could do it and so, taking the plunge, they imported 20 hinds (females) from New Zealand at \$3,300 per head.

The animals were agisted on another property for nearly a year, while Ross and Diane got the farm ready. Normal cattle fences are not enough to keep deer in; these animals can leap effortlessly over farm fencing. Wire mesh 190cm

high is usually used for boundary fences and laneways, with internal fences at 150 cm high. The horizontal wires of the mesh can be closer together at the bottom, to keep predators out and fawns in.

The person who sold the Lawrences their first stag offered to come back and remove the antlers when they were ready for harvest. The next week, he brought them \$1200. He had obtained the amazing price of \$325 per kilo for just under 4 kilos of the product, from one animal. Ross stresses that this is by no means an average; the figure is about \$90 per kilo today. But this experience certainly encouraged Ross and Diane and so the enterprise got off to a good start.

The Rainbow Deer Farm's land is productive and at its peak there were 200 stags roaming the hillsides here, all velvet producers, with 100 breeding females. From the start the Lawrences aimed for well-bred animals and sourced bloodlines from New Zealand and Britain. They invested energy, time and money into upgrading genetics and the herd now carries some of the best genes in Australia.

More recently they have invested in some eastern bloodlines, carefully selecting sires to add additional length to the beam and multiple tynes (antler branches).

In velvet competitions, the Rainbow herd has won shelves of trophies. One sire, Linford, was the National Grand Champion stag three times.

Male deer produce a set of antlers every year and then shed them, growing the antler at up to 20 mm a day. The size increases as the animal reaches its prime at about five years and then decreases with age. Stags in the wild use the antlers as weapons to assert their dominance over other stags, in competition for the females.

The stag with the biggest antlers and also with the best stamina will pass on his genes, a method of natural selection.

Red stags take the mating game very seriously. They spend most of their time in the season roaring ferociously and looking for a fight. I remember as a child listening to the





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roaring in autumn, from a deer park over seven kilometres away.

During the growth period the emerging antlers are covered in fine grey hairs that look like velvet. Deer rub off the velvet as the antlers calcify. Before this, on the farm the velvet antlers are cut off each year and stored in a freezer. When the Lawrences started the business, deer were shot with a dart out in the paddock, to give them a general anaesthetic before the operation. Then they needed another injection to bring them round again and were often dazed for some time.

Ross and Diane say that the present method is more efficient and more humane. It is approved by the government's Animal Welfare Advisory Committee. The animals are quietly brought down a laneway and into a large shed and put into a padded crush, where they are immobilised. A tourniquet is placed round the base of the antler (the pedicle) and a local

anaesthetic given before the antlers are sawn off with a hand saw. 'They hardly notice,' says Diane. Recovery is much quicker than with the old method.

Ross and Diane are qualified under the National Velvet Accreditation Scheme (NVAS) to perform this operation and every year they are assessed by a vet to ensure that they continue to comply with the rigorous standards.

Under NVAS there are also quality assurance requirements covering operator safety, product traceability and residues.

Highly productive animals such as these need good nutrition. The herd grazes and browses in large paddocks, as they are of course ruminants and need roughage in the diet. In winter they get silage and all the year round, they eat high protein 'deer cobs,' pellets formulated for deer. Ross feeds these out in buckets onto the ground and the deer approach him quite closely. (They were wary of me as a stranger, but that was to be expected.)

The whole antler is used for the production of diet supplements. The antler stick is composed of proteins, free amino acids, minerals, lipids and water. Important key compounds include collagen, glucosamine sulphate and chondroitin sulphate, which is a component of cartilage. It is used in conventional medicine for the treatment of osteoarthritis. The antler also contains growth factors.

Researchers seem to think that the combination of ingredients found in velvet antler is more effective than any of them in isolation. This has often been found to be the case in natural medicines, such as some herbs.

Traditional Chinese medicine has valued velvet antler for centuries as a tonic and a promoter of wellbeing, and to treat a variety of ailments. The theory is that factors in nature restore the body to a natural balance, allowing the body's defence mechanisms to heal it in a holistic approach.

Western researchers are now taking an interest in the product; a summary of the literature on the health benefits of velvet antler has been published by RIRDC.

On the Rainbow Deer Farm web site, the benefits of velvet antler are listed as follows:

- assisting the body's immune system
- supporting stamina and athletic performance
- restoring the body to general balance and well being
- provides elasticity in joints and helps joint cartilage
- aids the healing process.

Rainbow Farm now has an established market for velvet antler, both wholesale and retail and a market for the herd genetics. They decided not to sell venison; instead, there is a link on their web site to people who do. Deer meat is lean and nutritious, but as Ross pointed out, you need a fairly large operation to produce a regular supply of meat and without that, there is no market.

Ross and Diane have found however that there is a retail market for velvet antler as a dietary supplement; they sell capsules and powder online from their web site, products made by manufacturers. They operate another web site to sell the products as a nutritional supplement for pets. Their 'K9 Magic' (get it? Canine) products come as powder, tablets, capsules and dog chews. It's a treatment for arthritis in dogs and one that is said to improve pets' quality of life. Customers include a wide cross-section of the public.

This beautiful quiet spot is ideal for deer farming. It has no noisy roads nearby and no close neighbours, but there are wonderful views across the hills. To leave here would be hard, particularly as the Lawrences built a pleasant house here themselves and planted many trees. But after twenty-five years, they have scaled down the enterprise to 90 stags. The next move could be to sell the property and move into a country town. The valuable genetic material carried by their animals, after all those years of selective breeding and judicious importation of new bloodlines, will go to other breeders.



Diane tested the out the benefits for herself after she had an encounter with a stag that left her with a leg broken in two places and a smashed knee. The entire leg was put in plaster. It was to be kept on for eight weeks, she was told, but she got the surgeon to agree to look at it after three weeks, if she promised to keep her weight off it completely. She took copious amounts of velvet antler and after three weeks, the surgeon was most surprised to find that the leg had healed.

In spite of this accident, the Lawrences say that handling deer is not particularly dangerous, with the right approach. Animals that were difficult to handle have been culled. The holding pens are well designed so that people and deer meet in confined spaces as little as possible. The deer are handled often and are quite used to seeing people around; above all, the people they see are calm and patient. For any species, stock handlers need the right temperament.

Further information:  
[www.deerfarm.com.au](http://www.deerfarm.com.au)