

**DEER FARMING INTERNATIONALLY:
A VETERINARY PERSPECTIVE**

John Fletcher

I am encouraged by the belief that thorough understanding of a livestock industry is a necessary prerequisite for a successful veterinary practice, be it large or small animal. In this paper I wish to discuss deer farming in a range of countries to highlight to the veterinarian the global nature of deer production.

At no time since the war has the world's political arena been subject to such rapid developments as it is now. The colossal revolutionary changes within eastern Europe and Russia have also spawned political changes in the developing countries, as a result of Soviet withdrawal and the need to court the American economy. In western Europe the single European market begins in 1993 and monetary union will come soon afterwards, accelerated by events in eastern Europe. The size and economic strength of western Europe is already impressive - it carries only 7% of the world's population but 24% of its gross national product, 44% of its trade and 36% of world currency reserves, thus creating a capacity for saving equal to that of the USA and Japan combined. Influenced, no doubt, by the formation of a conglomerate even greater than itself, the United States has moved towards the relaxation of its trade barriers with Canada to the north and increasingly Latin America to the south.

All these political developments might seem far removed from deer farming but they are of course having, and will continue to have, profound effects on all industry, including agriculture. Not only is Europe becoming the biggest economic bloc, but West Germany still purchases about 80% of the world venison market. They consume about 20,000 tonnes per annum of which about half is imported. New Zealand's farmed venison accounts for 13% of these imports and this represents 43% of New Zealand farmed venison exports.

For these reasons and because most of my international experiences of deer farming have been within Europe, I have concentrated especially on that area.

1. GREAT BRITAIN

British deer farming began, as in New Zealand, in the late 60s and early 70s. A boom in venison due partly to the economic strength of West Germany and a simultaneous depression in sheep meat prices, created similar pressures in both New Zealand and Britain.

Like New Zealand, Scotland has a very large wild population of red deer. Currently running at 300,000 in the Highlands, these provide a source of cheap commercial hinds which easily form the basis of a farmed deer herd. Despite this shared advantage, however, for a number of reasons, Britain and Europe have lagged far behind New Zealand in the development of deer farming. I wish to cover these points in some detail as they are essential for an understanding of the whole European scene.

1. Subsidies are fundamental to European agriculture but they are entirely restricted to conventional enterprises in most member states, so to start farming deer is a little like looking a gift horse in the mouth. That so many have done so merely reflects the expectations of farmers that the level of agricultural support will decline. This expectation is now fading.

2. "Velvetting". Opposition to "velvetting" in Europe comes from two uneasy bedfellows; firstly the welfarists who opposed "velvetting" in Europe in 1978 and rationalised their objections in terms of doubt about the value of the end product - thus de-horning cattle for beef production was acceptable but "velvetting" for 'aphrodisiacs' was not. Secondly, opposition came from the stalking fraternity in Britain and hunters elsewhere in Europe, for whom even the containing of deer in enclosures is anathema. Without income from velvet, deer farming becomes less attractive of course. Although currently banned only in Britain, velvet harvesting could become the subject of European legislation very quickly.

3. Farming attitudes. Increasingly through much of Europe and perhaps especially in Britain and West Germany farms serve two roles. On the one hand they are a place to live, while on the other they are often no longer the farmer's chief source of income. In addition farmers are now held in very low public esteem and are generally actually almost vilified by those living in cities. In a predominantly urban based culture, those with entrepreneurial flair do not therefore enter agriculture. Farmers tend to be traditionalists who do not like to risk their neighbours' ridicule. Others think deer fencing 'obtrusive'.

4. Capital. Associated with the lack of entrepreneurial flair, farmers, especially those being encouraged verbally by the government to diversify are without the capital to spend on fencing and breeding stock and are perhaps sufficiently comfortable not to have to raise capital for a project which banks might not be too keen to help.

2. EUROPE

I shall now attempt to cover the European countries and their progress in deer farming.

2.1 France

You might expect that a nation with 685 ways of cooking eggs and a taste for snails and frogs would also have a liking for venison. But it isn't so simple. The meat of the roe deer or "chevreuil" is highly esteemed but France's most eminent chef, Paul Bocuse, in a book wholly devoted to game cookery, wrote only one sentence about red venison: "For advice on cooking red deer meat, see that given for roe". Ideas are changing now but there is no tradition of eating red venison and efforts are directed by deer farmers at creating a market for a new product: "Farmed Venison".

In France there has been considerable opposition to deer farming from the hunters. Much has been written in the hunting press campaigning against deer farming on the grounds of "genetic pollution", damage to the 'natural wild behaviour', damage to venison quality, damage to the wild venison market and an emotional reaction to the concept of enclosing and domesticating a mysterious and noble wild beast.

Nevertheless there are now reckoned to be 120 - 150 red deer farmers and 60 - 90 fallow deer farmers carrying around 3000 red deer hinds and 3000 fallow does. There is an Association of red deer farmers: The Federation Nationale d'Eleveurs de Cerfs which has 60 members, all farming red deer together with another association which caters for fallow deer farmers. The general emphasis is on the level of intensification with the vast majority of farmers, especially those with fallow deer, farming extensively and without handling pens. This of course will have serious ramifications for the diagnosis and control

of disease, especially tuberculosis. So far few, if any, herds have been TB tested. The absence of handling pens also prevents the despatch of live deer to abattoirs and it is not surprising then to find that deer are all killed on the farms and in many cases transported dead to abattoirs for evisceration and meat inspection. They are then sold privately from the farms. There are however, plans to adapt an abattoir for the slaughter of deer. As in most of Europe there is a tradition for extensive management of deer and wild boar in game enclosures with the meat sold to local restaurants and households after having been shot in the park.

In France, there is as yet, no officially approved tuberculosis testing scheme but there have been moves from the French veterinary authorities for the British testing procedure to be adopted and there are plans for French vets to attend British training courses.

On Friday 22 June French deer farmers were shocked to hear of legislation introduced by their Ministry of the Environment, presumably acting in response to the hunting lobby, (hunting provides employment for 200,000 in France). This legislation prevents the sale of domestically produced venison except during the hunting season, September - February. Even within the hunting season farmed venison can only be sold direct to the end user and then only locally. Clearly, unless reversed, this will have a disastrous impact on French deer farmers. Whether Brussels legislation will affect this, remains to be seen. But in the meantime it provides an excellent opportunity for those countries wishing to export farmed venison!

There is little doubt that other European states will find powerful hunting lobbies wishing to draw up parallel legislation in their own countries, particularly Germany.

2.2 Germany

Deer farming in West Germany is even more enigmatic than in France. Germans are a woodland people; the forests are treated almost with reverence (whence springs the strength of their "green" movement) and the red deer in particular is venerated. The myths of St. Hubert and St. Eustace have almost become the basis for cults with annual church services to give thanks for the pleasures of hunting. Against this background it is no wonder that deer farming as we know it in Britain and New Zealand has not taken off in Germany. Wild or "wild" is sacred and to tame the wild is blasphemy. On the other hand fallow deer, which have existed in semi-domestication in parks in Germany for 2000 years are more acceptable. As a result there are many hundreds, and probably thousands, of fallow deer enclosures. In these the deer are usually shot for their owners' table and kept for pleasure. Over and above this there is a number of sites, usually connected with agricultural colleges, where efforts have been made to make fallow deer management more intensive. There are nevertheless legal problems since, for example, in some "lande" there are legal maxima for stocking densities, an legal requirements to provide ponds, trees etc etc.

Whether the German approach to deer farming will change, remains to be seen. Deer do receive EEC and German headage subsidies for farming in less favoured areas and there is a German deer farming organisation which has expressed interest in joining the newly founded Federation of European Deer Farmers' Associations.

The German approach to deer farming is extremely influential throughout Holland, Belgium, Denmark and Sweden. In all these countries the extensive management of fallow in parks is more numerous than red deer. Nevertheless there are three or four red deer farmers in the Netherlands, and one established and several others starting in Belgium.

2.3 Denmark

In Denmark deer farming has developed much more rapidly although still with the preponderance of fallow deer. Since Denmark has been without tuberculosis for many years, in the mid-80s legislation was introduced which required all enclosed deer to be tagged unless running in a designated park and all these farmed deer are subject to compulsory TB testing at the State's expense and all deer must be inspected both ante and post mortem. Unfortunately of the 750 enclosures, 450 have registered as parks. The Danish Deer Farmers' Association has therefore developed its own aimed at providing reliably sourced breeding stock, particularly for export. There are now an estimated 2500 breeding hinds and 18000 fallow does on the 300 registered farms, with an even greater preponderance of fallow if the parks are included. The Danish Deer Farmers' Association formed in 1985 has some 300 active members. Frank Vigh-Larsen has been appointed to investigate different management systems and to oversee a National Advisory Centre.

Venison sales in Denmark plunged when TB was diagnosed in deer imported from Germany in the mid-80s. Denmark had been free of TB since 1957. However, venison sales have since recovered and it is now selling well. Most of the venison is passed through a single meat processing plant which, it is hoped, will soon handle live deer rather than simply accepting farm killed carcasses.

2.4 Sweden

In Sweden there are some 15000 fallow and 3-4000 red deer in enclosures, but these are mostly parks. There has been a powerful lobby opposing deer farming by creating requirements for deer on farms to express their "natural behaviour", to be contained in enclosures of more than 5 or 10 hectares, to make illegal the cutting of hard antler and the slaughter of deer in abattoirs. Unless Swedish deer farmers rapidly conduct a large scale and successful public educational programme, there seems little future for deer farming in that country.

2.5 Ireland

Ireland provides a rather more cheerful contrast. The Irish still, unusually in Europe, retain a strong agricultural lobby and are, of course, eagerly looking for alternatives to cattle and sheep enterprises. They are unfortunately restricted in the sources of red deer by their requirement to have deer serologically negative to infectious bovine rhinotracheitis. There are 120 active deer farmers with about 4000 breeding females, of which about 75% are fallow. Venison sales are very promising although all deer are still killed on farms.

2.6 Italy

In Italy deer farming has been very slow to develop and information about the numbers farming deer is not available. There are however a growing number of red deer enthusiasts, albeit from a very low base of perhaps half a dozen farmers.

2.7 Spain

Spain also remains, to me, rather an unknown quantity. There are very large and rapidly increasing numbers of wild deer with unknown disease status and some of these are caught annually to restock different hunting areas as they have been for at least 1000 years. The catching systems are crude, with heavy losses. There is a substantial and growing export of venison to West Germany. There are, I believe, three people carrying out what could be described as deer farming and I gather that there is a New Zealand input into these projects.

3. SLAUGHTERING AND MARKETING

So much for progress within the individual European countries. As mentioned at the outset of this talk the formation of a single market is making a great impact, especially on legislation, and deer are not exempt. The handling of game meats has proved particularly difficult. Each member state has different cultural and practical needs to meet, yet a Game Meat Regulation is practically on the statute book. The objective of all deer farmers of whatever nationality has been to safeguard their privileged position of being able to continue to slaughter deer on the farm, as well as gaining access to the infrastructure available to conventional "red" meat. In other words the larger deer farmers who do not wish to get involved in farm gate marketing operations want to safeguard the conventional use of red meat abattoirs and share the ongoing hanging, cutting, packaging, transport and retailing pathways with beef, lamb and pork. Despite the very small quantities being handled and the inevitable difficulties this poses in very large abattoirs, as well as the problems of unfamiliarity with deer, there has been little difficulty in finding abattoirs willing to handle deer, due no doubt in part to the large surplus of killing capacity in most of Europe.

The added costs of constructing purpose-built abattoirs for deer is one Europeans are keen to avoid. This has had the effect of uniting European deer farmers in pressing for abattoir-killed venison to be reclassified as red meat rather than game. By this means the French and Belgians hope to be able to kill and market their deer year round and not solely within the hunting season.

In addition it has been the policy of most deer farmers to sell their venison at a price substantially in excess of wild produced game meat. For example the wholesale price of imported wild shot venison at Rungis in Paris is around 30FF per kilo (£2.94) (NB x3 to convert £ to \$NZ), whereas we are selling farmed venison into France at 45FF per kilo (£4.41). In Britain farmed venison is being bought by the farmers from the British Deer Producers' Society Limited at £1.50-£2 per lb (£3.30-4.40/kg), whereas game dealers purchase wild shot carcasses at 75p-£1 per lb (£1.65-2.20/kg). This price differential is easy to achieve in markets relatively unused to wild venison and where the advantages of the farm product can be explained to the buyer, ie the chef or the consumer. The European deer farmer is therefore not at all concerned that reclassification of farm venison as red meat may damage his position in the marketplace. Indeed a number of British marketing consultants have suggested venison be deliberately repositioned as 'farmed deer meat' but farmers have resisted this.

At the time of writing it therefore seems probable that farmed venison will come to be treated exactly as beef, lamb and pork except for a "derogation" permitting the slaughter of "small" quantities of venison on the farm for "local" sale. As yet "small" and "local" remain undefined. The imposition of these regulations will - if enforced - lead to a two-tier system of deer farms in Europe.

Sadly the pressure to have venison reclassified in Europe as red meat would possibly lead to the payment by New Zealand of an increased tariff, 14% instead of 3%, on the importation of its venison into the EEC. This is not, as I have made clear, the intention behind the lobby and there is, at least from Britain, great disappointment if the effect is to damage relations.

From the veterinary point of view there will be a greatly increased involvement of vets in meat inspection of venison both on farm and also within the abattoir. In Britain there is still, until this legislation is introduced, incredibly, no meat inspection for venison sold for consumption in Britain.

So much for deer farming in western Europe, about which I am best able to talk. For the rest of the world I can only talk to some extent secondhand, aware that many in New Zealand will be much more familiar with developments than I am.

5. EASTERN EUROPE AND USSR

There appears to be some 50-70,000 red deer in the European Soviet Union and the Caucuses (Drew, et al., 1989). Most of these are concentrated in reserves but apparently only 3-5000 head are harvested annually. For at least the last 100 years these deer have been hunted and farmed for pantocrine in many areas. In Yugoslavia, Rumania, Bulgaria, Czechoslovakia, Hungary and Poland red deer have been, for many years, an important resource in providing trophies for privileged nationals as well as hard currency from visiting sportsmen. It is too early to say what is likely to happen to these deer now. There is widespread concern in western Europe that there will be a great increase in the numbers of deer killed, following the political changes in these countries, thus damaging the venison market. It seems unlikely in the short term this will have much impact on the farmed venison market as the quality is likely to be inconsistent and carcasses shipped in fur into the traditional game venison trade. However, the establishment of deer farms could rapidly change that if venison were to be the objective and if processing and marketing were to be improved. Velvet is perhaps likely to be a more lucrative option. The larger size of east European deer might also encourage the growth of their live export to deer farms elsewhere. The careful management of the deer for hunting in most of eastern Europe and western Russia means that it would be relatively simple to establish farmed herds from existing wild stocks.

Moving further east there are widespread rumours of large numbers of farmed deer in Russia including Siviridov's account in 1978 of up to 160,000 Asiatic wapiti (*Cervus elaphus xanthopygus*) and maral (*C. Maral*) (cited in Drew et al., 1989). Deer farmed in the Altai region of the Soviet Union were visited by a New Zealand delegation in 1989 and numbers were loosely estimated at around 500,000 (pers. comm. Tim Wallis). Although traditionally farmed for velvet. Farmed sika deer are also extremely numerous throughout eastern Russia and as far west as the Caucasus. Still further east in Asia the farming of deer for velvet antler remains a rapidly growing industry with numbers in China put at 260,000 in 1981 (Pinney, cited in Drew et al., 1989). The likelihood of these farms yielding marketable venison in the short term seems remote and even in the distant future the climatic advantages of New Zealand together with your marketing, packaging and distribution skills must surely outweigh the availability of cheap labour in China, Russia and eastern Europe. One possible exception to this complacent scenario, however, would lie in velvet production. Stags perhaps seem to grow better velvet in a more continental climate and the mystique and trade connections of these nations could, I suppose, damage the New Zealand velvet industry.

6. AMERICA

We have yet to consider the American continents. New Zealand experience is greater in these than mine. Britain has disappointingly had the Canadian and American markets temporarily removed due to concern that BSE might spread from cattle to deer and so be introduced into their livestock. There is certainly a great market demand for red deer breeding stock and probably the US venison market has greater potential than any other. Fallow deer, I believe, may prove unsuited to the climate in most of north America and Canada. (In Sweden they are not successful north of Stockholm). I also think it is unfortunate from the veterinary and humanitarian point of view that fallow deer should be transposed from one hemisphere into the colder interior regions of the other, but I hope time proves me wrong. Fallow deer have the advantage that they are extremely unlikely to hybridise with the indigenous deer and so can be introduced without fear of destroying the native species. With red deer this is a risk and many parts of north America are now therefore closed to red deer importation.

In central and southern America economics speak louder. In any case in several areas red deer, often English park stock, have already been breeding freely for many years. Although there are no dangers of hybridisation here there remains the real possibility of habitat destruction and competition with native

species, leading to very serious damage in some areas. Inevitably deer farming will grow quickly in parts of Brazil and the Argentine to name but two countries. Where irrigation is possible in arid and semi-arid areas deer may do extremely well, on alfalfa for example.

7. CONCLUSION

I am conscious of very many gaps in this short paper; I have not mentioned Australia, knowing less of deer farming there than you, for example I could have discussed the prospects of venison production from the huge reindeer herds of the Arctic or the future of rusa deer farming in the tropics. It is a large subject and we are privileged to be involved in breeding what is perhaps the first new domesticant for 2000 years. References: Rice M, Mair's Assessment of Venison Market (1990) *The Deer Farmer* 69 30-31

Drew, KR, Bai, Q & Fadeer, EV (1989) Deer Farming in Asia. Chapter in *Wildlife Production Systems*, ed. Hudson, Drew and Baskin. Publ. Cambridge University Press, England.