

## THE DEVELOPMENT OF THE DEER INDUSTRY

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Deer farming today is established as a recognised livestock alternative which has attracted farmers and investors alike because of profitability and, in the past, tax advantages. One of the most remarkable aspects of the industry is its rapid growth. In the 1960's New Zealand developed a lucrative trade with West Germany for shot venison which peaked in 1972 at 4300 tonnes representing 130,000 carcasses.

Enterprising helicopter operators were becoming concerned that they might shoot their way out of business and recognised the possibility of farming deer as an ongoing way of producing venison. From these early beginnings we have seen deer farming grow rapidly into a multi-million dollar industry with huge investment in livestock, slaughtering and processing facilities.

Prices for product have increased steadily over the past 10 years, but, due mostly to political interference in the industry, the values for breeding stock have fluctuated wildly. These fluctuations in prices, together with single markets for venison in Europe and for velvet in Korea, have branded deer farming as speculative. In the past, one of the main attractions has been the tax advantages available. For example, in 1979 when the price of velvet increased to \$220 per kg. and the industry boomed, hinds increased in value to \$3000 and farmers and city businessmen became interested in farming deer. Agreements were made in which the farmer supplied the land improvements and management while the investor provided the capital for the stock. Both were able to defer large amounts of tax by claiming the write down from purchase price to standard value.

All livestock taxation advantages have been progressively removed since the introduction of the Income Tax Amendment Bill in 1982. While it is debated between farmers and politicians whether they ever should have been allowed, the fact remains that they were in place during the formative years of the deer industry and played a major role in its development. The marriage of city money and farming expertise was a productive one and the industry would not have progressed at the same rate without the injection of outside capital.

The political situation over the past three years has been one of change. The government has removed the Supplementary Minimum Prices and the other subsidies that agriculture enjoyed under the Muldoon administration, and farming has almost overnight been faced with the stark realities of the marketplace. The profitability of traditional farming has deteriorated sharply and diversification into new products and further processing is being encouraged. The obvious options for the livestock farmer are deer or goats depending on the type of country farmed and the amount of capital available.

All taxation incentives were finally removed with the introduction of the new livestock taxation regulations in 1986. While deer farmers find them unpalatable and unnecessarily complex, they have had the effect of reducing the price of females. The major disincentive to investment in deer has always been the high price of breeding stock. This has now been removed and at the present level of prices new farmers should enter the industry. While currently this is not happening for two reasons - the lack of understanding of the new tax system, and the high interest rates - if one believes the present government, these problems will be solved in the short term.

A significant factor in the development of the industry was the advent of Deer Slaughter Premises in 1981. These sophisticated plants (of which there are 10 with another to be built shortly in Feilding) are small, efficient and use the latest technology. The standard of hygiene and inspection means that we are no longer confined to exporting to those countries which accept shot game, and this gives the industry a very real advantage over its competitors. Evidence of the efficiency of the DSP's is that the producer receives 63% of the export value of the carcass - three times that received for a lamb on the Smithfield market.

It is important to our overseas marketing that the definition of 'game meat' is maintained as distinct from other meat products. In 1981 the then Minister of Agriculture proposed changing the Meat Act to include farmed deer as stock, and recently the Meat Division of MAF suggested they were going to review the Act to allow deer to be killed and processed in any slaughterhouse. The deer industry is vigorously opposed to any involvement with the meat industry because of its traditional commodity marketing, its high cost structure, and poor industrial relations.

The future marketing strategies of the Game Industry Board and the exporters hold the key to profitability. These do not envisage farmed venison in competition with other meats but positioned as a gourmet product at the top of the menu with lobster, salmon and pheasant.

At the recent NZDFA conference in Christchurch, Chernobyl was described as "a blessing in disguise". It exposed to the industry the vulnerability of our largest market and the urgent need to diversify and to identify our product as New Zealand venison.

To maximise the long term net returns, the GIB plans to promote farmed venison to a premiere cuisine position on international markets with a single industry brand which will guarantee quality tenderness and consistency. In the past the industry has been fuelled by high returns for velvet and livestock, and this has overshadowed the primary objective - the production and marketing of venison. Feral venison is unlikely to play any part in this strategy and should be regarded as a separate product and marketed as such.

The exports from the deer industry have doubled in the past five years and a similar rate of growth is expected. Last year we exported 2236 tonnes, of which approximately 1200 tonnes went to West Germany. The next largest importer in Europe was Switzerland (300 tonnes) with smaller tonnages going to the United Kingdom, France, Austria, The Netherlands, Denmark, Sweden and Belgium.

The developing markets are to be found in the United States, Japan, Australia, Singapore and Hong Kong. While the preference in these markets is for the high priced saddles, they are being educated to take an increasing proportion of desinewed hind legs and forequarters. Production is expected to increase to approximately 20,000 tonnes by 1995 but sales are also growing rapidly with exports to European countries other than West Germany up by 83% on the previous year.

The Game Industry Board is committed to co-ordinating marketing strategies which will ensure premium pricing as volume increases.

### Velvet

The future of velvet is more difficult to predict. Last year we produced 76 tonnes which when processed reduces to approximately 20 tonnes of dried product for export. The industry is heavily dependent on a single traditional market in Korea which has taken between \$4-5m of velvet in each of the last four years. A further \$3.5m is exported to Hong Kong but a substantial proportion of this is eventually sold to Korea. China is our chief competitor and it is encouraging that over the past four years we have increased our share of the Korean market from 27% to 47% due to improvements in quality, processing and presentation. Production is expected to increase to over 100 tonnes but Korean imports remain static and quantities to other

markets are unlikely to increase. There are, however, exciting possibilities if velvet can be incorporated into products acceptable to Western markets. Velvet producers are aware of the need for improved quality and style, and this will become increasingly important in the future as volume increases.

### Administration

The New Zealand Deer Farmers' Association has many functions in administering the industry for the benefit of producers. Most involve politics, and the fundamental issue we face in the immediate future is funding production research.

The main functions of the Game Industry Board overseas are market research and the development of new and existing markets. In New Zealand the Board finances product research. Projects such as increasing the shelf life of chilled product, and obtaining better carcass utilisation by developing the cheaper cuts into various forms of processed product, are financed by the Board from compulsory levies on venison and velvet.

Production research undertaken by Invermay, Massey, Lincoln, Ruakura and Wallaceville in the past has been funded by the government, but the new 'user pays' policy requires an increasing percentage of the cost to be recovered. Research on animal health, nutrition, pasture development and parasites is essential to the long term development of deer farming and clearly must become the responsibility of the NZDFA.

The Association is funded by subscription but has a membership of only 50% of deer farmers. The contribution of \$44,000 last year to research was the major factor to the deficit in the accounts. At the 1986 AGM we instituted a live sales levy but the funds were restricted to GIB marketing purposes. The 1987 AGM broadened the levy to include production research and we see this as the obvious vehicle for future funding.

The Association has set up a Research Foundation with an independent board of trustees on which your Association has been invited to be represented. We have written to the Minister of Agriculture seeking a capital grant from the now-defunct Phosphate Commission which holds funds in excess of \$30m. We are informed that the Commission Trust Fund is likely to hold its capital intact and give favourable consideration to those projects that are already partially funded. The live sales levy could provide these much-needed funds but to be successful the levy must be compulsory. At an informal meeting with the

Minister, he indicated that a well documented case for compulsion could succeed provided he was convinced the Association represented the majority of deer farmers. This has prompted the Association to institute radical changes to its constitution in a determined effort to increase membership. It has been possible in the past to be a member of a Branch of the NZDFA only with a very small subscription but under the new constitution we have instituted a national membership only, together with Associate membership for those who do not own any deer.

To summarise the current state of the industry, the removal of taxation incentives has caused prices to fall to approximately 1/3 of the value of a year ago. There has therefore been a substantial reduction in the amount of capital required but profit margins have been preserved. Hinds are selling at \$1300-\$1500, Weaner Hinds \$800-\$1000, and Weaner Stags \$4 per kg. This range of prices is nearer the productive level of the animal based on what it produces. Unlike the sheep, beef and dairy industries which are faced with falling returns, venison and velvet schedules are strong. While the industry views with concern adverse media publicity on the effects of Chernobyl, it sees the suggestion by one meat company that a schedule of \$4 per kg. is realistic as an attempt to undermine confidence in venison production. The schedule (at time of writing) is over \$6 per kg. and the prices paid to the producer in the coming season for velvet will be at least as good as, if not better than, last year.

Draft Projections (source G.I.B.)

**Red Deer Population**

	<b>Venison Stags</b>	<b>Breeding Stags</b>	<b>Weaner Hinds</b>	<b>Hinds</b>	<b>Total</b>
1986	94,834	12,771	62,517	235,506	405,628
1987	121,124	16,480	78,443	295,083	511,130
1988	148,785	21,037	98,355	373,496	641,673
1989	178,746	26,778	123,159	469,510	798,193
1990	213,186	32,808	154,039	567,943	967,976
1991	243,023	38,998	185,655	654,109	1,121,785
1992	256,543	45,295	213,517	758,260	1,273,615
1993	272,588	51,581	248,224	827,478	1,399,871
1994	279,077	57,393	272,000	916,401	1,524,871
1995	304,302	63,977	302,156	1,010,717	1,681,152

## Fallow Deer Population

	Venison Stags	Breeding Stags	Weaner Hinds	Hinds	Total
1986	4,415	933	3,972	13,086	22,406
1987	5,480	1,133	4,932	16,249	27,794
1988	6,804	1,390	6,124	20,152	34,470
1989	8,443	1,719	7,598	25,023	42,783
1990	9,440	2,061	9,439	30,024	50,964
1991	11,237	2,421	11,332	34,445	59,435
1992	12,950	2,784	12,999	39,984	68,717
1993	14,411	3,144	15,084	43,726	76,365
1994	15,696	3,480	16,499	48,553	84,228
1995	17,407	3,869	18,301	53,888	93,465

## Venison Production

## Velvet Production

	Tonnes	Value (\$NZ 000)	kg.	Value (\$NZ 000)	Total Value
1986	2,417	22,562	76,773	8,000	30,562
1987	3,299	31,198	95,674	7,654	38,852
1988	4,402	39,122	114,747	9,180	48,302
1989	6,489	53,407	129,130	10,330	63,737
1990	9,693	68,768	139,311	11,145	79,913
1991	12,098	73,626	143,005	11,440	85,066
1992	15,764	87,096	133,612	10,689	97,785
1993	17,745	94,259	117,425	9,394	103,653
1994	18,771	99,711	101,246	8,100	107,811
1995	20,585	107,585	102,385	8,191	115,776

	Skins	Value
1986	37,700	1.18m
1995	300,000	9.0 m

Total Revenue 1995 125 m.

Assumptions - Venison yield 76%

- Carcase weight
 

	Reds	Fallow
stags	55 kg	20 kg
hinds	45 kg	20 kg
- Stags 65% slaughtered 0-12 mths till 1990  
90% slaughtered 0-12 mths 1990-1995
- Hinds 2% slaughtered as 2 yr olds.  
Rising to 15% by 1992.

These figures clearly illustrate the likely growth in population and export volumes.

## The future

Please bear with me while I look into my crystal ball and try and predict where we are heading.

Deer farming will be regarded as a recognised livestock option rather than a high cost speculative venture.

A deer farm after all is little different from a traditional farm except for a 2 metre boundary fence.

Because deer adapt readily to a wide range of farming environments ranging from first class dairy land to South Island high country, they will compete in future with sheep, cattle, dairying and goats. They will also continue to become more domesticated and expensive internal fencing will no longer be necessary.

The low labour requirement compared to other livestock will make them attractive and, because they integrate well with other farming systems, they will give the farmer the opportunity to diversify his options and split his income risks.

There are likely to be three types of deer farming -

- Breeding,
- Finishing, and
- Specialised Velvet production.

There will be combinations of these, with the most important function being the production of quality venison.

Breeding programmes will become more sophisticated with a greater emphasis on progeny testing, fawn pairing, and culling the national herd. Culls will be mated for venison production and we will see greater use of Wapiti and the larger Reds from Eastern Europe to meet the demands of many markets for a quality carcass at an early age.

Farmers will want to match feed supply with demand and will want hinds calving earlier either with the use of hybrids or hormones. Twinning is likely to become a reality as will artificial insemination, embryo transplants and sexed sperm.

In the past the NZDFA has had a close relationship with your Association and as we approach the age of high technology, veterinarians will need to have a high profile and an increasing involvement in these new developments.

Last year Alistair Porter in his address to your conference challenged you to aggressively market your services and suggested that deer farmers and veterinarians have independent economic interests in the success of each other. This I fully support.

Today city money is again being directed into deer farming and the major investment by corporations is encouraging. Their confidence is based on profitability and the ability of the industry to market its products.

In the 1990's returns from deer will be assessed against those from other options. The challenge is therefore to maintain a high return to the producer as volumes increase. Much will depend on the marketing strategies adopted by the industry but the efficiency and productivity of the animal will play an important role.

At the International Biology of Deer Production Conference in Dunedin in 1983 Professor Roger Short in his summing up said, "New Zealand is leading the world in the domestication of a new species of farm animal". Four years later, this is still true but I have no illusions that others are catching up and we need to be very efficient to stay ahead. Your Association will have an important role in ensuring we do.

IBSp  
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