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Livestock diversification in New Zealand involving goats for meat and dairy production

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ABSTRACT

Goat farming as a form of livestock farming has developed in New Zealand since the mid 1970's. The main cause for this has been the change in the relative economics of the traditional pastoral farming industries of sheep, beef and dairy cows. Farmers have begun to recognise the husbandry and economic aspects of farming goats and have been developing techniques for profitable ventures.

Export earnings from goats approached \$4 million FOB in 1983-84 but have varied considerably since with the availability of stock for slaughter, dairy goat product market fluctuations, and stock value changes.

Keywords Goats; weed control; chevon; goat skins; dairy goat.

INTRODUCTION

Traditionally New Zealand farming has been characterised by sheep, beef and dairy cow production systems. However since the mid 1970's with the relative changes in the economics of these systems many farmers have been forced to consider the alternatives. One of the options has been goats. Kirton and Ritchie (1979) estimated the number of feral goats at 400,000 in 1979 although the actual numbers they thought could have been 3 times that figure. At the same time there were an estimated 10,000 dairy goats in the country, predominantly of the Saanen breed.

WEED CONTROL

Feral goats have been tolerated on many hill country farms in the past because of their weed control attributes. When numbers became too great they were mustered and slaughtered for meat which was then a useful bonus to farm income. However the costs for chemical control of weeds in a maintenance or development programme have increased significantly over the years. This, along with the total removal of government subsidies, prompted more farmers to consider farming goats not only as a weed control measure but as an alternative to machinery and chemicals in land development. They were also encouraged by the return from the fast developing fibre industry.

The main weed species involved have been blackberry (*Rubus fruticosus*), manuka (*Leptospermum scoparium*), bracken (*Heridiura aquilinum*), spanish heath (*Erica lusitanice*), rushes (*Juncus spp.*), thistles (*Cirsium spp.*, *Cardus spp.*), sweet briar (*Rosa rubiginosa*) and gorse (*Ulex europaeus*) (Horgan, 1979; Rolston *et al.*, 1981; Batten, 1979). Farmers have found that using goats for weed control generally takes longer than chemical

methods but successful clover establishment is more likely (Horgan, 1979). Estimates involving gorse control programmes have found that given the most favourable development rate with chemical control there would need to be an 88% decrease in the costs of chemicals and application costs to be an equivalent cost method to the use of goats in combination with sheep (Krause *et al.*, 1984). Unfortunately for the chemical companies not only has this not occurred but since that time fibre and livestock returns have increased. There are individual instances of farmer savings of \$8,000 on chemicals alone in blackberry control, plus returns of \$14 to \$15/goat for cashgora fibre.

MEAT AND SKIN PRODUCTION

The production and marketing of goat meat and skins is by comparison to our other livestock industries in New Zealand an unstructured industry. To date, the animals slaughtered and sold on overseas markets have been obtained from the large feral population rather than from farmed goats. Since 1977, export earnings from chevon and skins have exceeded \$1 million FOB annually and the chevon exports of some 860 tonnes in 1983-84 alone was worth around \$2.15 million plus \$0.52 million for skins. With the emergence of the fibre goat industries less ferals have been available for slaughter. This is indicated by the fact that the 1983-84 kill was only 60% of that sold in 1979 and in 1985-86 only 405 tonnes being produced to return \$1 million approximately.

After Australia, New Zealand is the world's second biggest exporter of chevon. Although both countries are not large by world goat production standards. With our average carcass weights being only around 10 kg, by comparison to the 18 kg in Australia we have had limited market penetration.

Even though in 1983-84 the West Indies and Caribbean markets took 43% of the total production their preference has been for heavier carcasses. Our most loyal and closest market has been Fiji where a 10 to 12 kg carcass is preferred but a tolerance of 9 to 16 kg has been accepted. To put chevon in perspective to our other meat production for the country Table 1 shows that even though weight and total value are small by comparison the price per kg has been high. From 1981 to 1985 there has even been a premium ranging from 10 to 23 c/kg for chevon over and above that offered for lamb.

TABLE 1 Weight and value of New Zealand's meat exports 1981-82.

	Weight (t)	Value (\$'000 FOB)	Price per kg (\$/kg)
Lamb	413,600	710,400	1.71
Mutton	124,900	145,800	1.16
Beef	381,600	619,900	1.62
Chevon	733	1,465	1.99

DAIRY GOATS

During the 1970's there were small herds of milking goats in the Northland and Nelson regions of the country. With the changes occurring in the dairy cow industry forcing smaller uneconomic units to either sell up or amalgamate there were many small units looking at alternative forms of livestock production that could utilise the capital resources of dairy farms and still be economic. From a small start of 4 producers in Northland selling 8 tonnes of dried whole milk powder product in 1975-76, predominately to the Taiwanese market, the goat industry developed to peak in the 1984-85 season with 296 tonnes of dried whole milk being produced from 145 suppliers in 5 co-operatives. Prices for milk peaked at 65¢/l which by comparison to the then cows milk price of 21¢/l encouraged more to enter the industry with the result that some 25,000 dairy goats predominately of the Saanen breed were in production. In that year the FOB earnings for New Zealand from dairy goats totalled some \$2 million.

In most years there was a premium for goat's milk of 400 to 500% over cow's milk. In 1981 the gross margin estimates showed dairy goats to be earning close to 2.5 to 3.5 times the return from dairy cows (Horton, 1981). Unfortunately for the industry both product development and marketing were limited. In 1982 we saw several processors competing

for the same market and undercutting each other. Also competition from other countries and adulteration of product lead to a product price collapse. Eighteen months after the 1982-83 season there was still some 155 tonnes of the 300 tonnes of goat milk produced still in storage. This lead to producers being in financial difficulties and many applications to the New Zealand Dairy Board for loan support. Financial stress bought disillusionment with the industry and in 1983-84 season many producers dried-off their goats as no payments were to be made until the stock pile diminished. Fortunately for some there was the opportunity to sell livestock to the rapidly developing fibre industry as recipients for embryo transfer programmes.

Product development followed and now goat's milk is sold as cheese, whole milk, cream, yoghurt, ultra high temperature (UHT) treated milk, flavoured milk powder, ice cream mix, spreads, tablet food supplement, soap and shampoo.

Early in the 1986-87 season there were around 24 producers predominately in 2 areas around Whangarei in Northland and Hamilton in the Waikato. There has been developed a limited frozen cream and a cheese market in Australia. It is unfortunate that a potentially very economic farming production system has been handicapped by poor market research and development. It is to be hoped that our other goat industry has learnt from this lesson.

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