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Livestock exports: national economic significance

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ABSTRACT

At least 6 different species of animals are currently being exported from New Zealand, horses, cattle, sheep, goats, pigs and poultry. Of these only horses, cattle and sheep are of economic significance. Although the volume and value of livestock exports has increased dramatically in percentage terms over recent years, returns from total livestock exports still amount to less than 1% of total exports.

It is anticipated that dairy cattle exports in particular could continue to increase in geometric terms. Scope also exists for increased exports of other species but they will be subject to more constraints. While livestock exports are useful in a national economic sense and are important to individuals, companies and some geographic areas, it is unlikely that they will amount to any national economic significance in the foreseeable future.

It is unlikely that livestock exports will adversely affect overseas markets for New Zealand animal products. Rather, the resulting expansion in local production is likely to stimulate consumption, leading to consumer pressure to increase imports to satisfy this demand.

The concept of exporting livestock is certainly not new to New Zealand. As early as the 1840s, pigs were being exported to Australia albeit for food rather than breeding. However, very little surplus livestock was available during the early European occupation because of the need to stock up the ever increasing areas of developed pasture. By the end of the century, however, livestock was beginning to show up in export statistics and the first report of the Department of Agriculture in 1893 lists 398 horses, 150 head of cattle, 3977 sheep and 33 dogs being exported. Data given later in this paper indicates how this trade has increased in size, especially over the last decade.

There is nothing extraordinary about the development of this industry. Indeed, it would be extraordinary if a country such as New Zealand which has an export-oriented economy based on livestock farming and a fair measure of entrepreneurial spirit, did not engage in exporting livestock. One of the earliest endeavours of early European settlers was to increase the quality of their livestock. Since those early times, continued investment has taken place in the field to the stage where individual projects such as MAF's Sheeplan and the Meat Board's Beefplan represent a combined annual investment of over \$350,000 and this does not take into account other substantial public and private investment in this field.

Such investment in genetic improvement combined with the reputation which New Zealand has built up in overseas countries as a producer of quality animal products and the relatively low cost, grass-based systems used for animal rearing, provides ideal conditions for the development of a profitable livestock export industry.

Recent Developments

Export data over recent years suggests that the conditions described above have been exploited to fulfil overseas demand. Export details for 6 species of stock are shown in Table 1.

It is apparent that since 1975 exports of dairy cattle and sheep have increased very rapidly and those of horses steadily. The rest are nationally insignificant. All animals exported are for breeding purposes except for horses, which include horses for racing.

Although numbers of dairy cattle exported have increased a remarkable 1200% between 1975 and 1982 current exports should not impose a strain on national supply of breeding stock. It is recognised that this increased offtake may cause an upward pressure on prices for local breeding stock in localised areas. From the national viewpoint, however, the increased export earnings (1982, \$11.3 million) are useful, albeit relatively small.

Exports of sheep have followed a similar pattern to those of dairy cattle. Starting from a low base, percentage increases between 1975 and 1982 (1700% by number) have been very rapid. With 86000 head exported in 1982, it is not considered that any strain is being placed on the national breeding flock to supply this number. Also, like dairy cattle exports, the return of \$7 million to the country is welcome, but not a major contribution.

Exports of horses have also shown steady growth between 1975 and 1982. Although not as spectacular in percentage terms (almost 180%) as sheep or dairy cattle, the export earnings (\$29.9 million in 1982) are considerably higher and represent a more significant contribution to national income. It is interesting to

TABLE 1 Selected of items of livestock exports 1975/82 (value \$ million, rounded).

June year	1975		1980		1981		1982	
	No.	Value	No.	Value	No.	Value	No.	Value
Horses	1805	7.9	2680	23.9	2501	27.5	3002	30.0
Dairy cattle	1526*	1.8*	9875	5.0	6576	3.8	17921	11.4
Sheep	4980	0.3	9677	1.6	21377	2.0	86448	7.1
Beef cattle	—	—	2518	1.4	320	0.4	494	0.5
Poultry	396000	0.1	1292000	0.5	762000	0.4	233000	0.3
Goats	—	—	1	0.2	25	0.4	396	0.5
Pigs	143	0.2	772	0.1	290	0.6	82	0.3
Other	—	0.2	—	0.3	—	0.3	—	0.5
Total	—	10.4	—	32.5	—	34.1	—	49.3

* Beef and dairy cattle included.

note in passing that these earnings do not arise from a sector which has had any significant Government input, either in terms of research or direct assistance.

Data on the increased returns to New Zealand from selling breeding stock rather than livestock products is difficult to obtain because of its commercial nature. A simple division of total export value, by total export volume, for sheep and cattle for the year ending June 1982, gives per head values of \$634 for dairy cattle and \$81 for sheep. These figures should be treated very cautiously as the base data cannot be accredited with over-much accuracy and simplistic treatment such as that performed further compounds error. For all these qualifications, however, it is apparent that export returns from exporting livestock are attractive compared with the alternative of exporting the animals as livestock products.

TABLE 2 Livestock exports return as a percentage of total and primary product export returns (\$ million).

June year	1975	1980	1981	1982
Livestock	10.4	32.5	34.1	49.3
Total exports	1621	6180	749	8370
Livestock products	1358	3507	4200	4460
Livestock % of total	0.6	0.5	0.5	0.6
Livestock % of products	0.8	0.9	0.8	1.1

Total export returns from livestock exports although impressive in themselves, have not made a significant contribution to total national export receipts. Figures from Table 2 show that in the years selected the contribution has been about 0.5% of total exports or less than 1.0% of export receipts from primary products.

Although small in national terms, livestock exports have made a significant contribution to export diversification. Table 3 shows their contribution in recent years compares very favourably with the much publicised deer and kiwifruit industries.

TABLE 3 Comparison of livestock, kiwifruit and deer exports (\$ million).

Year	1975	1980	1981	1982
Livestock	10.4	32.5	34.1	49.3
Kiwifruit	2.9	37.5	44.7	58.5
Deer	6.5	7.1	15.6	11.0

Effect on Trade

Much of the demand for New Zealand pastoral livestock comes from developing countries, or industrialised countries wishing to upgrade their agricultural industry (mainly Eastern Europe). Most developing countries attempt to develop a livestock industry for political reasons such as food self-sufficiency and rural employment even though climatic conditions are often unfavourable and grazing areas limited.

Consumption of animal products generally increases as economic development takes place and per capita incomes rise. Promotion of local product also stimulates demand, often to the extent that imports are needed to supplement local production. It can therefore be argued that development of a local industry can stimulate export demand for our livestock products. Certainly there is no evidence to suggest that New Zealand's markets for pastoral products have been reduced as a result of development of a local industry. In any case New Zealand does not hold a monopoly over the export of livestock and any reduction in supply from New Zealand would be quickly snapped up by other exporting countries.

The Japanese dairy industry provides a good example of these development trends. In post-war Japan food self-sufficiency was a key policy objective, and a major effort was made to develop its agricultural industries. The resulting livestock development programmes which relied in part on live imports, led to 89% self-sufficiency for dairy products by 1978. Local production of dairy products

increased from 1 million t to 6.5 million by 1980. These rapid production increases were more than offset by even faster growth in consumption (per capita consumption almost tripled over the period). Thus the requirement for imported dairy products also grew over the period as demonstrated in Fig. 1.

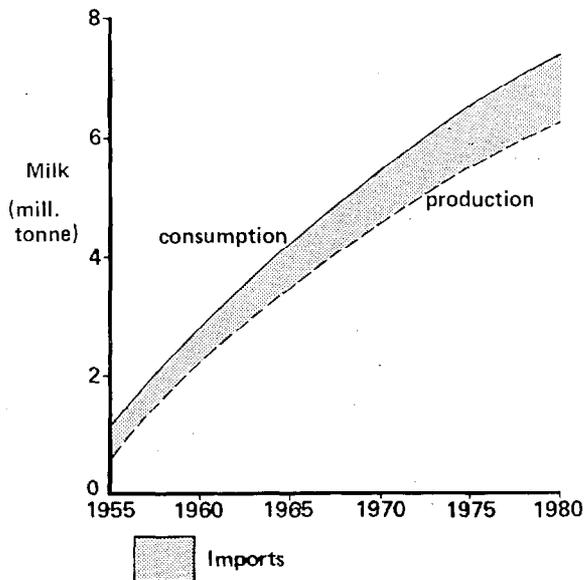


FIG. 1 Japanese milk production and consumption trends.

Potential

Dairy stock which accounted for almost a quarter of the total value of our exports last year have grown rapidly. Growth has relied heavily on South-East Asian markets where developing countries are placing a major emphasis on the development of their dairy industries. This development is now well advanced

and the recent growth in exports to this area can be expected to taper off as the developing industries are consolidated over the next few years. Gradual improvement in quality of their herds is then likely to be a priority and artificial insemination may well play a greater role in this than imported livestock.

China is concentrating on upgrading its pastoral industries and a number of joint ventures have already been started which may lead to significant sales of livestock in the future. Markets for both sheep and cattle may also develop in South America. Mexico has indicated it wishes to upgrade its livestock industry but major deals are unlikely until greater economic and political stability is achieved.

Eastern Europe has been a significant and growing market, particularly for live sheep exports in recent years, and the desire of these countries to upgrade their livestock industries indicates this growth could continue. However, economic instability makes these markets particularly insecure.

The recent Polish trials comparing production of dairy stock from a number of countries must have enhanced the reputation of New Zealand's dairy stock and may well lead to increased demand throughout the rest of Europe, for semen if not for live exports.

Potential in the Middle East markets also depends on the future political and economic situation, but the possibility of these countries developing their livestock industries in the longer term could well create a significant demand for stock, particularly live sheep.

Overall we would expect a steady but not spectacular growth in livestock exports, but much will depend on the economic and political situation in the countries we presently supply. Because of this uncertainty we must continue to develop new markets. We do have quality stock with a growing international reputation and this coupled with continued vigorous marketing should ensure that a measure of growth will continue in the industry.