Livestock exports: the advisers' and farmers' view

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ABSTRACT

The types and economics of each contract for export animals are discussed and examined from the advisers' and farmers' view. The good returns in 1982 for rearing of qualifying Friesian heifer calves are indicated together with the various margins for Sahiwal options. Data is presented from a survey which has shown an adoption rate for the Sahiwal scheme of 22% with 66% of adopters continuing with it. Reasons for non-adoption are discussed, as are also industry considerations of this recent and developing market, particularly those affecting dairy processing and the domestic market for dairy heifers.

Currently there are 2 types of export scheme available to the Waikato dairy farmer, namely the Friesian heifer scheme and the Sahiwal scheme designed to capitalise on the surplus heifer calves born every year from dairy herds by rearing them for export rather than slaughtering them as bobbies at approximately 1 week of age.

Both schemes have several contract options, with Sahiwal cross heifers being eligible for sale either at 4 to 10 days of age for contract rearing or after weaning at 12 to 16 weeks. Friesian heifers can be sold at 4 to 10 days, 14 to 18 weeks or in June at 40 weeks. In all cases there are minimum weight requirements at sale and the Friesian scheme specifies animals with 4 white feet and a white switch on the tail to indicate Friesian genotype.

To encourage rearing of better quality animals one of the major export companies pays a premium for calves of known ancestry and above average breeding index.

Advisers generally give advice designed to comply with the individual farmers' situation. Whilst there is no 'party line' or common view shared by all advisers, they treat every case on its merits to determine what is best financially for the individual and hence the adviser's and farmer's views tend to be similar.

Farmer Economics

Three categories of farmer are likely to benefit from these schemes, namely the breeder of the calf, the rearer and the farmer who grazes weaner animals (or who leases his farm for this purpose). The financial return for the breeder is simply the proceeds from the sale of the young heifer calf in the first week of its life — very similar to the calf which is bobbied. The difference is that a Sahiwal cross heifer calf was worth $90/head in 1982 when a bobby heifer calf was worth about $16. Additional costs include paying for insemination of the animal (about $20, free Sahiwal semen being provided by the exporters) when a bull service might otherwise suffice. Sahiwals have a gestation length some 10 days longer than local dairy breeds. In the early years of the scheme failure to realise this fact proved costly for many dairy farmers but now management is adjusted accordingly, with most mating lower breeding-index cows earlier.

If one assumes normal conception and survival rates and sex ratio, then in 1982 the Sahiwal breeder made $54 per heifer calf more than bobby calf price.

Table 1 indicates the returns for Sahiwal contract rearers in the spring of 1982. Under this system the major export company provides week-old calves free of charge for rearing but deducts $100/head from the rearing payment for losses. This policy has been important in keeping losses down. Contract rearers have access to relatively cheap supplies of milk-powder and meal and are thus able to keep rearing costs to a minimum.

TABLE 1 Returns from contract rearing Sahiwal heifer calves, 1982 ($/head).

Milk powder 6 weeks—35 kg	39.00	Rearing payment	100.00
Meal 40 d at 30c/d	12.00		
Losses	5.00		
Total	56.00		
Margin	44.00		

No capital is required for calf purchase and the only finance necessary is for rearing inputs, making this contract attractive to those farmers unable to purchase calves themselves.

The costs of calf rearing for bull beef sales are shown in Table 2. Rearing Sahiwal calves on export

contract was at least 6 times more profitable than the weaner bull market. Sahiwal calves require additional husbandry for successful rearing. Experience both at Ruakura and on commercial farms has shown an additional need for shelter and good stockmanship. Where the breeder with access to whole milk and colostrum reared his own Sahiwal heifer calves, $170 was paid for the 12 to 16 week calf in 1982 and the margin was $86.50, twice that for contract weaning. This farmer should enjoy substantial advantages over the contract rearer insofar that he has fewer disease worries, better control of early growth rates and access to milk or colostrum.

TABLE 2 Economics of buying and rearing bull calves ($/head).

Calf cost	25.00	Average price	
Milk powder	45.00	—Frankton sale	105.00
Meal	14.00	Less commission	
Losses	1.25	and freight	12.00
Interest	0.75		
Total	86.00		93.00
Margin	7.00		

Friesian heifer contracts first appeared in 1980 and high prices paid in 1982 for Friesian heifer calves have reflected this recent type of contract where $170 has been paid for qualifying heifer calves at about 16 weeks of age.

Prices paid by Friesian heifer rearers averaged about $40 in the spring of 1982 with up to twice that being paid in isolated cases. One exporter paid $45 for qualifying Friesian heifers off the bobby calf truck and then reared them on contract.

Table 3 shows the returns from buying and rearing Friesian heifer calves in 1982. As with the Sahiwal, the breeder/rearer is again at an advantage when compared to the buyer/rearer. Rearing one's own calves gave an advantage of $24 over bobby calf price, while use of whole milk and stored colostrum instead of powder saved approximately $12 to increase the margin to $111.50.

TABLE 3 Economics of buying and rearing Friesian heifer calves ($/head).

Calf cost	40.00	Return	170.00
Milk	39.00		
Meal	12.00		
Losses	2.00		
Interest	1.50		
Total	94.50		
Margin	75.50		

To summarise, Table 4 indicates the various margins for 1982 and includes an option for private sale of Friesian heifer calves at 4 days of age. It shows that: (1) there are good margins for the sale of Sahiwal heifer calves at 4 days of age; (2) that an additional 70% of profit can be made by contract rearing Friesians instead of Sahiwals; (3) if you are rearing your own heifers for sale, then Friesians are more profitable than Sahiwals.

Obviously, owners of Jersey and crossbred herds do not have the option of selling or rearing for the Friesian export market and can only consider the Sahiwal option.

TABLE 4 Summary of margins for 1982 ($/head).

	Sell 4 days	Contract rear	Rear own calf
Sahiwal	54.00	44.00	88.68
Friesian	24.00	75.50	111.50

Trends and Reasons for Them

Having examined the various contracts and their financial rewards it is appropriate to examine trends and the reasons for them.

In 1981 Animal Enterprises Ltd commissioned a market survey of farmer attitudes to the Sahiwal scheme by the Management Studies Department of Waikato University. This survey (Dunston, 1981) of 160 randomly selected dairy farmers comprised 75% owner/operators and 25% sharemilkers, milking predominantly (63%) Friesian herds.

Only 2.5% of farmers were not aware of the scheme and 22% had adopted it, starting as early as 1977. Of the adopters two-thirds were still using Sahiwal semen in 1981.

The major reasons given for non-adoption were as follows:

19% had difficulty in obtaining sufficient suitable replacements;
12% were concerned with the longer gestation;
12% farmed Jerseys and were concerned about the Sahiwal/Jersey calves meeting live-weight criteria;
12% were concerned about calving difficulties;
10% were sharemilkers whose main interest was building herd numbers.

Of the adopters, 80% stated they did it because it was profitable — a finding which reinforces the view that profitability is the major driving force behind changes in policy.

The major reasons for leaving the scheme were:

42% — too hard on the cow;
17% — profitability questionable;
8% — calf handling and rearing difficulties.

To discover whether the more innovative farmers were likely to accept the Sahiwal scheme, farmers were asked about the adoption of 2 recent management techniques, 'tail painting' as an aid to oestrus detection and cold *ad libitum* calf feeding systems.

The survey showed that 68% of the sample had adopted the tail painting while 37% had adopted cold *ad libitum* calf rearing systems. Adoption rates in the Sahiwal scheme were 6% higher for tail painting and 5% higher for calf *ad libitum* rearers. This suggests that the more innovative farmers were being attracted to the scheme.

The fact that only 22% of farmers sampled adopted the scheme may appear surprising, in view of the $54 margin for a Sahiwal heifer calf sold at 4 days of age. To put this in perspective for the farmer milking the average national herd size of 130 cows, it should be realised that provided that 20% replacements are kept and expected conception rates occur, then only 18 Sahiwal heifers are likely to be sold. This should return the farmer an additional $972 (the equivalent of 277 kg of milkfat). This does not appear a sufficient inducement and suggests that calf prices will have to increase relative to the price of milkfat if more farmers are to adopt the scheme.

In response to a question on improvements to the Sahiwal scheme, concern was expressed about exporting animals to the detriment of the domestic supply of replacements, about calving difficulties and about the role of male Sahiwals. The question of calving difficulties has declined in importance with the provision of easy calving bulls, both Sahiwal and Friesian. Under good rearing, Sahiwal cross bulls have shown a slightly slower growth rates than straight Friesians, something which is partly offset by their superior carcass qualities. There is also the suggestion that the Sahiwal cross animal's relative performance may be better under suboptimal feeding conditions which prevail in some areas of New Zealand.

Industry Considerations

To date the Sahiwal scheme has had only limited impact on the dairying and beef industries with most significant effect being that of the Sahiwal cross beef animal. The Friesian heifer calf scheme, however, promises to have a greater overall effect. The high returns for both contract rearers and breeder rearers selling weaned Friesian heifer calves for export in this attractive and previously non-existant market is undoubtedly influencing farmers' attitudes towards their breed of dairy cow, and I expect it to accelerate the trend to Friesians. This trend is likely to have a considerable effect beyond the farm gate, at a time when peak milk flows are causing embarrassment to areas of the dairy industry, some of whose leaders have been known to advocate more Jerseys as a means of decreasing peak milk flows.

Another farmer concern relates to the price of dairy heifers on the domestic market and distortions caused by either shortage or surpluses of export heifers. A common view was found in the non-exporting stock firms in the Waikato:

1. Average values for in-calf and springing dairy heifers have not yet been affected by export operations. Historically the value of such animals has been the value of its lactation — this is still the case.
2. Values of yearling heifers have increased in relative terms, due to export, giving the rearer better returns.
3. The companies concerned have received significant increased business due to sales to exporters.

An additional consideration is the effect of the reduced numbers of heifer bobby calves on associated industries such as rennet processing. Of the approximately 1 million calves slaughtered, currently between 60 to 70% of vells are used, with the balance being exported to Europe. Any shortfall is imported from Australia and the New Zealand Co-op Rennet Company Ltd is unconcerned about a possible diminishing supply of vells.

Conclusions

There is little doubt that this developing cattle market is having a significant effect in the Waikato with farmers' and advisers' views being most influenced by the profit generated to individuals. Analysis of margins shows the good returns possible from breeding and rearing Sahiwals and rearing Friesian heifers.

The Sahiwal survey indicated farmer attitudes and highlighted the fact that most adopters (60%) continue with the scheme and have solved most of the associated management problems. Most farmers however remain unconvinced, despite a 98% awareness of the scheme.

The good return for Friesian heifers is likely to increase significantly the number reared and may accelerate the Friesian component of the national herd with possible implications for the existing peak milk flow problems in some areas.

In my view both advisers and farmers believe the livestock export industry to be a very worthwhile development and it has enabled dairy farmers, contract rearers, graziers and stock firms to enjoy better returns and greater opportunities.

REFERENCE

Dunston L. 1981. *The Animal Enterprises Sahiwal Market Survey*. Management Studies Department, University of Waikato, Hamilton, New Zealand.