

New Zealand Society of Animal Production online archive

This paper is from the New Zealand Society for Animal Production online archive. NZSAP holds a regular annual conference in June or July each year for the presentation of technical and applied topics in animal production. NZSAP plays an important role as a forum fostering research in all areas of animal production including production systems, nutrition, meat science, animal welfare, wool science, animal breeding and genetics.

An invitation is extended to all those involved in the field of animal production to apply for membership of the New Zealand Society of Animal Production at our website www.nzsap.org.nz

[View All Proceedings](#)

[Next Conference](#)

[Join NZSAP](#)

The New Zealand Society of Animal Production in publishing the conference proceedings is engaged in disseminating information, not rendering professional advice or services. The views expressed herein do not necessarily represent the views of the New Zealand Society of Animal Production and the New Zealand Society of Animal Production expressly disclaims any form of liability with respect to anything done or omitted to be done in reliance upon the contents of these proceedings.

This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](http://creativecommons.org/licenses/by-nc-nd/4.0/).



You are free to:

Share— copy and redistribute the material in any medium or format

Under the following terms:

Attribution — You must give [appropriate credit](#), provide a link to the license, and [indicate if changes were made](#). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NonCommercial — You may not use the material for [commercial purposes](#).

NoDerivatives — If you [remix, transform, or build upon](#) the material, you may not distribute the modified material.

<http://creativecommons.org.nz/licences/licences-explained/>

PRESIDENTIAL ADDRESS 1995

Some Advantages of Corporate Animal Production

G.B. NICOLL

Landcorp Farming Limited, PO Box 1235, Hamilton, New Zealand.

The most obvious distinction between owner-operator and corporate animal production is one of scale. It may be claimed that scale of operation leads to such disadvantages as high overhead costs, bureaucracy, slower response time, and reluctance to adapt, in comparison with the owner-operator livestock producer. On the other hand, scale can be instrumental in realising advantages to the corporate producer that are beyond the scope of the owner-operator, and which more than compensate for many of the commonly believed disadvantages. The advantages of scale relate to the opportunities available through the production, resource use and marketing functions of the corporate producer. Further advantages relate to the management of the corporation as a business. The discipline evoked by applying professional management systems to the business of animal production, rather than animal production *per se*, offers scope for profitable reward over a longer time frame than the owner-operator would normally consider. And this is despite the fact that animal production is a biological process subjected to the vagaries of climate and product prices in the international marketplace.

1. SCALE OF OPERATION

Operational size provides economies of scale; an obvious example is the purchase of supplies. In practice, economies in the provision of inputs may not necessarily amount to a large cost saving due to associated administrative and(or) overhead costs.

Within the context of animal production, advantages of scale can be realized in relation to the production from capital livestock. Breeding females can be used to produce replacement capital stock, revenue-earning progeny or even to transfer into a specialist sire-breeding function. The advantage of scale does not come from the division into these three functions but from the number of females in each of these functions.

Rather than numbering in the hundreds, or perhaps thousands, a corporate situation is likely to involve populations of tens, or hundreds of thousands of females in each function. For example, breeding ewes in Landcorp Farming Limited numbered some 637,000 at 30 June 1994. Using the company's actual livestock parameters for 1994, ewes required to breed their own replacements numbered 207,395 (414,790 after allowing for a 1:1 sex ratio), those to breed all sires were 11,870, leaving 210,340 ewes for the specialist production of revenue-earning offspring.

1. 1 Production

These numeric advantages offer greater scope for more effective utilisation of capital livestock through several avenues of production opportunity:

- (i) Production volume
- (ii) Production flexibility
- (iii) Breeding policies

(i) Production volume

Clearly more animals provide greater volumes of product. Product volume enables product purchasers to source from fewer producers, thus allowing the possibility of financial incentives to the corporate producer (eg, the use of formal supply contracts). Product volume is literally a quantitative opportunity to the large-scale producer, which can result in economic advantages.

(ii) Production flexibility

Scale allows the corporate producer greater flexibility in production, particularly under a more competitive economic and industry environment. This flexibility may be manifested by diversification into production enterprises to meet new and(or) specialised market niches. While diversification can offer economic advantages for corporate operations, it is important that the company does not diversify so extensively that it moves away from its core business. Thus for example, it would seem sensible for the corporate livestock producer to (at least initially) use supply contracts with processors/manufacturers for its diversified product, rather than to own a processing/manufacturing operation.

Production flexibility due to scale of operation can also apply within the core business of the corporate livestock producer. The company can farm several species, breeds and strains of livestock over a wide geographical spread of properties. Different species provide the flexibility of a range of products. For example, a range of red meats (beef, lamb, venison, chevon), and a range of fibres (wool, mohair, cashmere). A variety of breeds within a species offer product flexibility, such as a range of wool quality characteristics for example in fibre diameter, or a range of carcass weights and lean meat yields at a given time of the year. Different animal strains within a breed can offer improved flexibility in the production process, enabling animals to produce efficiently in environments to which they are adapted (eg, in regions prone to facial eczema or high challenges from internal parasites).

A wide geographical spread of livestock producing properties offers production flexibility in terms of the timing and

reliability of product supply. A spread of properties from north to south for example, allows the timing of parturition to range more widely than would occur in a single owner-operator situation. As a consequence, products derived from animals at a given age can be more reliably produced over a wider time span. Continued product supply is also more likely to be maintained under conditions of regional climatic failures or disease outbreaks since the production from properties in the non-affected (or lesser affected) areas can compensate for the loss in production from properties in the affected areas. An additional strategy available to the corporate producer in times of climatic stress, is the opportunity to move livestock from affected properties to non-affected properties, or to move feed supplies in the reverse direction.

Maintaining a geographic spread of properties provides further productive flexibility through functional (or horizontal) integration. Again, scale of production enables revenue-earning livestock to be transferred from breeding properties to rearing properties, and on to specialised finishing properties. Such integration facilitates ease of property management, concentrates and exploits livestock management skills and provides the opportunity to capitalise on continued high animal performance to the marketing stage.

(iii) Breeding policies

Scale of operation offers considerable advantages to animal production in a corporate environment through applying breeding policies for livestock improvement. These policies relate not only to the breeding of sires (selection), but also to the use of these sires on the commercial properties (mating system).

Devoting a fraction (say 2%) of a large capital female resource to the specialist function of breeding sires is beyond the scope of the normal owner-operator unit. The corporate producer can exploit the variation present in the base female population to identify those females required to breed males. The commercial owner-operator producer is generally in the position of relying on the sire breeding sector of the industry as the source of his sires. Invariably, the industry disseminates genetic improvement down a hierarchy from relatively few breeders to ultimately many commercial producers. This dissemination process is complicated by breeders and producers viewing genetic merit from different perspectives and by different criteria. In contrast, corporate sire breeding programmes are viewed from a single-ownership perspective which confers several advantages to the system as a whole (eg, Nicoll, 1990):

- The profit motivation in a corporate environment results in a more formal decision making process. Decisions on breeding objectives, selection criteria, recording, selection, and dissemination systems, etc can be centralised for coordinative control, and be technical in their basis.
- Single ownership of land and livestock enables the corporation to apply their breeding programmes without the proprietorial problems that can beset industry programmes. The corporation can operate its breeding systems solely from the perspective of the total (commercial) animal population.

In Landcorp Farming Limited's case for example, two-tiered open-nucleus structures for maternal sire-breeding

programmes are operated to maintain its Romney and Angus commercial female populations. These structures exploit the genetic contributions from the base, concentrate recording and selection in the nucleus flocks and herds, and provide sires selected under an economically-based breeding objective that is consistent with the commercial direction of the company.

- As with productive flexibility, a variety of animal species, breeds and strains involved in corporate sire-breeding programmes can provide selection flexibility, to increase productive suitability to (and accommodate future changes in), a range of physical and economic environments.
- Disseminating the characteristically small annual genetic gains in its sire breeding programmes to large commercial populations is a sound investment for the corporate livestock producer. Not only does the company control its genetic direction, but it also capitalizes on this direction in the physical and financial productivity of its commercial livestock populations. The economic value of the sire breeding programmes is not the value of the sires themselves, but of the large numbers of progeny generated on the commercial properties. The value of corporate breeding programmes must be viewed from the perspective of the total corporate population.
- Selection criteria that are relatively expensive to measure on individual animals (eg, facial eczema tolerance, or ultrasonic scanning for eye muscle depth and width), are limited in their application by individual breeders or producers. In a corporate environment however, the costs of measuring large numbers of animals can be reduced on a per-head basis, but more importantly, these testing costs have even less impact when considered from the perspective of a per-head cost spread over the total commercial population being improved.

In addition to the corporate advantages of scale arising from selection in sire breeding programmes, scale of operation also offers benefits in relation to how those sires are used on the commercially-producing properties of the company. The corporate sire breeding programmes can include a range of breeds to suit particular production systems and (or) market opportunities. This enables more formalised mating systems to be established to not only exploit within-breed variation, but also between-breed variation. Thus for example, the base female resource of Landcorp Farming Limited is maintained by using maternal breed sires (Romney, Angus, and Red deer) from the Company's breeding programmes. Females in the population that are surplus to this requirement are mated to specialist (eg, terminal) sire breeds (Texel, Lamb Supreme, Simmental and Wapiti) to generate revenue-earning offspring. Again, these specialist sires are generated from within Landcorp's own breeding programmes. In this way, the company benefits from the "one-off" gain due to heterosis, and from the continued improvement gained from the within-breed selection that occurs in the sire breeding programmes.

1.2 Resource Use

Scale of operation increases the requirements for efficient resource management for the corporate producer. Land

requires inputs for effective on-farm management (buildings, subdivision, water reticulation, grassing, fertilizer, specialist pastures/crops, etc). Livestock require inputs in relation to breeding, nutrition and health. Effective inventory controls of the inputs associated with these resources are essential. Associated with these inventory analyses are the important elements of financial control for cashflow management, budgetary analyses and mid- to longer-term forecasting.

The common factor in all of these aspects of physical and financial resource management, is the need for accurate and readily available information on which to base decisions. Scale of operation clearly dictates networked electronic databases as the means by which this vital requirement should be met. Information systems required would include physical and financial performances, budgets/forecasts and comparisons with actual results, performance analyses, market information, audit trails, etc.

In contrast to the individual owner-operator situation, effective and sympathetic management of a company's human resource is also of importance. Including both on-farm and off-farm staff, the corporate producer must establish a working environment that encourages initiative, innovation and professionalism. The management philosophy should emphasise career structures and staff education, including pre-employment training and experience, and in-house training and personal development courses.

It may be argued that salaried staff are not as motivated to perform as an owner-operator (especially one with a large mortgage). Present staff management policies commonly emphasise non-monetary factors related to an individual's contribution to the total organisational team to encourage performance, as well as monetary rewards. Corporations also operate reporting systems that identify the performers and non-performers so that management can follow up with appropriate action. Owner-operators have less formal reporting systems, or none at all where the owner is the manager and need only satisfy himself. The corporate producer responds to inadequate staff performance by further training or serving notice. The owner-operator often lacks the mechanisms or the flexibility of responding the same way.

The corporation also has greater employment flexibility in the use of specialists whether under permanent or short-term contract employment. In either case, the costs of the specialist(s) are spread over a larger livestock base compared with an owner-operator producer. In addition, use of specialists provides the opportunity for the corporation to exploit current or new technology quickly and efficiently, and(or) to participate in the development of new technology for subsequent transfer.

1.3 Marketing

The chain of processor, broker, wholesaler, retailer and consumer imposes too many layers between the producer and consumer. As a result of operational scale, corporate livestock producers are better positioned to retain ownership of product and move closer to the consumer. Improving the margins for corporate animal products includes exploiting the scale of operation through product volume, implementation of production line systems, and differentiating products by brand and performance in the marketplace.

Product volume, as discussed earlier, enables the corporate producer to improve profitability through reducing the unit costs of production, extending the time of product supply, improving the reliability of supply and improving the quality of product.

In association with volume of production, the corporate producer can integrate animal production systems horizontally, in order that livestock can be managed optimally at all stages of their productive cycle. Thus, breeding units can be managed for high female reproduction and milk production, rearing units can be managed for optimal post-weaning growth, and finishing units for optimal growth, product quality and timing of marketing.

In addition to this "production line" or horizontal integration, corporate producers are better able to retain ownership of their product beyond the farm gate. This vertical integration includes such strategies as using contract processors, forming strategic alliances with processors and(or) wholesalers, or self-processing and direct selling. Associated with retained ownership, is the opportunity of branding the corporate products for consumer differentiation. The corporation must recognise however, that with product differentiation comes the requirement to continually maintain consistent product quality. Effective inventorial management and marketing of the differentiated product can provide the opportunity for information to be fed back to the production systems for effective quality management.

2. PROFESSIONAL MANAGEMENT

An owner-operator livestock producer is unlikely to formally define a business objective, develop business plans to achieve this objective, establish strategic and marketing plans for continued profitable operation, instigate a human resource programme for the personal development of his staff, etc. These all form part of the management process that is essential for a successful business. Furthermore, these disciplines assist in management as a philosophy as well: the way in which managers consider their company, policies, markets, customers, and their competition.

An individual livestock producer is more likely to concentrate on his management skills as they relate to his farm. A corporate producer concentrates on management skills, particularly as they relate to the business of livestock farming.

3. CONCLUDING SUMMARY

Corporate animal production offers advantages that are beyond the reach of the individual owner-operator. Most of these advantages arise from the scale of operation which go beyond the economies normally associated with bargaining for supplies.

Scale assists in production, resource use and marketing. The total female livestock resource provides quantitative strength in the volume of product produced, the flexibility to adopt a range of products and production strategies, and the opportunity to tailor breeding programmes and policies to suit the commercial direction of the company. Resources can be managed efficiently through good information flows and sound personnel management. Retained ownership of prod-

uct and positioning closer to the consumer allows marketing advantages to be pursued.

Application of professional business management techniques allows the business of animal production to be of primary concern to the corporate producer, enabling sustainable profit generation over time.

REFERENCES

- Nicoll, G.B. 1990. Application of nucleus breeding schemes in a corporate setting: sheep, beef cattle and deer. *Proceedings of the 4th World Congress on Genetics Applied to Livestock Production*. XV: 357-360.