

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/>

BRIEF COMMUNICATION

An approach to advisory work with deer farmers in Southland

M. W. HARBORD

Ministry of Agriculture and Fisheries, Invercargill

Sixteen percent of the national deer herd (about 17 000 deer) are farmed on some Southland farms. Recent studies in the province have shown that deer offer a higher gross margin/ha or a higher financial return in total invested capital/ha than do sheep, although there are certain situations where investment in sheep is still preferable. With these assurances there is confidence in deer farming and steady growth is expected to continue. Local MAF advisers have had to become informed about deer to meet a demand for management and technical advice. This paper describes our approach to this.

Management and performance has been monitored on three flat fertile farms with herds of 280, 2000 and 215 head. On all farms calving percentage is about 90. Stag calves were weaned at about 58 kg and are 90 to 100 kg at 12 to 14 months. Hind calves are weaned at about 52 kg and mated at 80 to 85 kg.

The following studies were made:

1. Application of feeding standards in the field.
2. Development of grazing and supplementary feeding systems.
3. Selection criteria for breeding.

Feeding Standards

On one farm in winter 1981 74 stags and 69 hinds were fed 100% and 90% of maintenance respectively as assessed from the standards of Fennessy *et al.* (1981) (i.e., 0.85 MJ ME/kg LW^{0.75}). Swedes, oats and hay were the main components of the ration. Feed DM content (where not measured directly) and nutritive values were taken from Vlyatt *et al.* (1981). Feed offered was calculated from paddock samplings and wastage assessed visually.

Feed intake was calculated from feed offered (kg), its DM content, a wastage allowance, the nutritive value of the DM (MJ ME/kg), and expressed as MJ ME eaten. This "feed unit" was then costed.

Table 1 suggests that reasonable control of feed intake resulted. Stag feed was purposely increased in August while antler casting was occurring.

Velvet antler production was recorded. Five-year and aged stags produced 1.9 kg velvet/head in 1980 and 2.1 kg in 1981, 59% of which was A grade and 27% B grade. In 1981 the casting date was advanced by 17 days (range +3 to +31) and almost all stags produced second growth antlers increasing velvet production over that for 1980 by 0.64 kg/head. Of

stags producing A grade velvet 84% maintained or increased live weight, while 66% of those producing lower grade velvet lost weight between late May and September. There may be some evidence that the cost of extra feed may be returned in better weight and grading of velvet.

TABLE 1 Live weight of stags fed ca. 100%, and hinds fed ca. 90% maintenance under farm conditions.

	May 25	July 3	Aug 8	Sept 7
Live weight stags	130	128	128	133
hinds	86	88	88	89
Feed as % of maintenance stags	109	100	115	
hinds	113	90	85	

Development of Grazing and Supplementary Feeding Systems

With conventional deer fencing costing about \$5/m the evaluation of electric fencing costing about 90 c/m has been a priority. A mains connected, 4-strand fence utilising "hot-tape" with the top wire 1.4 metres above ground has been found ideal for crop utilisation and grazing control. By progressively decreasing break sizes, we have tried to establish the upper limits of grazing pressure that can be applied and have developed a general recommendation that in spring mobs of young deer can be safely confined at 200/ha behind electric fences, provided common sense levels of pasture utilisation (say 1200 kg DM/ha residue) are applied and water is available. Similarly, our guideline for adult stags grazing summer swards, is 100 stags/ha. This type of information is often sought by farmers and the knowledge is an important strategy in having them adopt intensive grazing practices.

Deer Breeding and Selection Criteria

The breeding and herd selection programme on 1 farm (72 adult hinds) has shown that full pedigree and performance records can be kept. From 3 years calving data preliminary estimates of within-herd selection indices and correction factors have been made (P. F. Fennessy, pers. comm.), e.g., at weaning in May-June stag fawns averaged 5.5 kg heavier than hind fawns whilst progeny from 2-year-old hinds have averaged 5 kg lighter than those from older hinds.

Differences in average weaning weight of fawns attributable to sire have been observed, as have repeatability rankings of the weaning weight of calves from the same hinds in successive years.

Conclusion

We have monitored 3 Southland deer farms to evaluate husbandry, diagnose problems, test solutions and demonstrate these to other deer farmers. Using the information gathered, advisers previously inexperienced with deer have quickly been able to establish credibility with farmers.

Farm owners, staff and Invermay scientists have been helpful in the collection and analysis of data. Assistance has also come from commercial firms,

especially the Southland Co-operative Phosphate Company, and the Wrightson NMA velvet antler processing factory in Invercargill.

The atmosphere of a "discussion group" has been developed between advisers and farmers, scientists, and others with all gaining from and contributing to the success of the exercise.

REFERENCES

- Fennessy, P. F.; Moore, G. H.; Corson, I. D., 1981. *Proc. N.Z. Soc. Anim. Prod.*, 41: 167.
- Ulyatt, M. J.; Fennessy, P. F.; Rattray, P. V.; Jagusch, K. T., 1981. In *Supplementary Feeding* (Eds. K. R. Drew; P. F. Fennessy) N.Z. Society of Animal Production Occ. Publ. No. 7.