

DEEResearch Project Update

5.05: Integrated livestock management.

Part A – deer farms survey

Part B – Effect of simultaneous grazing of sheep or cattle with hinds during fawning

Final Report

1. Introduction

Productivity and efficiency can be increased in sheep and beef systems from integration of sheep and cattle compared with single species. Comments from individual deer farmers also support this concept in deer systems. With the recent poor economic returns from deer farming, many farms are now using other livestock to complement deer numbers, however little is known of the full extent of integration and factors that may hinder the adoption of integrated policies.

This project sought to gather information on levels of integration, management of species and stock classes over the year, benefits derived from integrated livestock management and perceived barriers to adoption. An additional sub-contract examined effect of sheep or cattle co-grazing with hinds from October (when energy requirements for hinds are low) with progressive reduction in co-grazers through to March.

This project (5.05) began in February 2006. This update is accompanied by the final report (draft received by the DINZ Science Manager on Monday 6 November 2006, revised report re-submitted 21 december 2006).

A decision on acceptance of the final report is sought from the Board.

2. Results

PART A - SURVEY

A good response rate for the survey (14% or 689 respondents) was considered representative of the industry.

2.1 Extent of integration

- 16% farmed deer only.
- 16% farmed deer and sheep (of these 61% integrate deer and sheep).
- 16 % farmed deer and cattle (of these 81% integrate deer and cattle).
- 50% farmed all three (of these 85% integrate deer with one or both species).
- *Cattle rather than sheep were the dominant species integrated with deer.*

2.2 Stock mix and seasonal integration

- Co-grazing most common in summer, then spring, autumn and winter.
- For 3-species systems, stock mix was 30-40% deer, 40-60% sheep, 12-20% cattle.
- For deer and sheep systems, stock mix was 60-50% deer and 40-50% sheep.
- For deer and cattle systems, stock mix was 70-80% deer and 20-30% cattle.

2.3 Perceived benefits

- Cattle effective in improving mis-match between pasture demand and supply profiles and more effective than sheep.
- 75% of farmers practicing integration regarded cattle as effective for improving pasture quality (increasing clover composition), only 51% of farmers regarded sheep as effective (controlling weeds).
- High level of perception amongst integrating farmers that integration reduces parasite challenge (*but no indication of level of benefit*) and improves financial risk management.
- Low recognition of any benefits in minimising environmental damage.
- Risk of diseases not considered high by most integrating farmers, a greater number of non-integrating farmers considered disease risk to be higher.

PART B – EFFECT OF SIMULTANEOUS GRAZING OF SHEEP OR CATTLE WITH HINDS

Results from this trial were presented at a field day at Lincoln University on Thursday 25 May 2006 (following the annual deer industry conference).

When pasture was kept under tight control (i.e. maintained so that pasture height remained at 6-8 cm) by progressive removal of either cattle (heifers) or sheep from the paddock, there was no difference on the performance of lactating hinds and their fawns. Changes in pasture composition were small and pasture availability was similar for both co-grazing treatments.

3. Comment

The report is a comprehensive analysis of a large-scale survey, as such there is a lot of information contained within the report: The text is lengthy and provides good contextual interpretation of the data, but also makes it difficult to follow the findings.

Part B of this project has been revised several times but still contains a few inconsistencies (e.g. reference to pasture heights on pages 37, 38 and 40) and no hypothesis is suggested in the conclusion that results may have been different if pasture quality had changed.

4. Recommendation

It is recommended that:

The Board notes the contents of this report and the accompanying final report for Project 5.05 and that the final report be accepted and approved for publication on the DEEResearch website.

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