

Integrating economic and biodiversity values in the high country

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The project in summary

This project is evaluating the role of whole-property management plans as the basis for ensuring long-term sustainable management of the different values (economic, biodiversity, etc) that occur within a high country property. This newsletter provides a summary of project progress (see www.highcountryaccord.co.nz/biodiversity for further details).

Update on project progress

The main effort in the project over the last few months has focused on developing the farm management plan template. The farm management plan approach being used aims to integrate all aspects of farm management within a single plan. The management plan is based on a general statement (vision) about how the farmer would like to see the property at some point in the future, while goals (long- and short-term) are used to summarise specific targets that need to be met to achieve this vision. Long-term goals can vary in length, but 20-30 years seems about best, while short-term goals are best set for 5-year intervals as these guide day-to-day management. Goals should relate to all aspects of the property including stock and pasture management, biodiversity conservation and recreational opportunities. Other sections of the management plan include:

- The legislative, market, environmental and social context of the property.
- Constraints to achieving management goals (e.g., weather conditions, soils, animal pests, district plan rules).
- Tools for achieving the goals (this includes sections on stock and pasture management, plant and animal pest management, ecological management and public access).
- Management units within property.
- Monitoring outcomes across all goal areas.
- Management plan implementation.

The farm management plan will be of considerable value for farmers as it will formalize best management practice for a range of activities, support RMA consent applications (ie., show Councils what environmental work the farmer is doing) and provide a framework for eco-accreditation schemes, thus adding value to the property.

We have also retrieved the GPS collars from the four merino wethers at Otematata Station which are showing some interesting results, although detailed analyses have yet to be undertaken. A preliminary look at the data (where sheep position was recorded every 20 minutes for three months) showed that over the course of the summer wethers typically ranged over 7-9 km. However, within this they had preferred areas where they spent most of their time. Stock camping is clearly evident in the data, but camp sites appear to be constantly changing. There is also good evidence for the role of topographical features in both limiting (creeks) and facilitating (spurs) stock movement. We will report further on this study in future newsletters.



Environmental guidelines

We have been successful in securing additional funds from the Sustainable Farming Fund to enable us to extend the project to include the production of Environmental Guidelines for hill and high country farmers. These guidelines will complement the farm management plan template that will be the key outcome of the present project and will provide a series of best practice recommendations for a range of farm management operations that have potential effects on the environment (e.g., access, tracking, spraying, tree planting, restoration plantings, native forest management). This new work will run through 2007 and updates on its progress will be provided in future newsletters.

Links with ARGOS

The goals of ARGOS (www.argos.org.nz), which involves researchers from three universities and the AgriBusiness Group, are to facilitate innovation and improved performance in primary production systems and to enhance those systems abilities to



meet environmental and quality standards, leading to greater returns for New Zealand farmers and growers. This is being achieved by examining the economic, environmental and social performance of four New Zealand farming sectors (kiwifruit, dairy, lowland sheep and beef and high country).

The overarching objectives for the high country environmental part of ARGOS are to:

- Work with the farming community to implement farm management practices that help sustain the full range of values that occur in high country ecosystems (especially economic and biodiversity conservation values).
- Better understand the resilience of high country ecosystems, and especially native biodiversity in them, to external influences such as climate change and intensification.

High country ARGOS work has focused on establishing base-line land cover, aquatic and soil monitoring and developing an environmental and farm management overview of each property. Once this has been completed, the project will expand to consider a range of broader questions relating to the two objectives outlined above. The ARGOS and SFF projects are closely aligned and it is planned to use this newsletter to report on the outcomes from both projects in the future.

Photo-monitoring report

Arising out of the SFF project, and the monitoring work being done through the ARGOS project, has been the development of guidelines for undertaking photo-monitoring on high country and hill country farms (a copy is included with this newsletter). Photo-monitoring involves repeat photos of the same



Vegetation composition photopoint Otamatata Station, Waitaki Valley, with 2m wide vegetation monitoring transect

scene from the same place over a period of time. If undertaken properly, photo-monitoring can be used to (1) assess the response of vegetation to a land management activity such as fertiliser addition or change in stocking rate/type, and (2) document long-term changes in land cover on the property. It is a very simple and cost effective method to monitor changes in land cover, especially on large properties. Copies of the guidelines can be obtained from David Norton (contact details at end) or downloaded from the project web page.

Management planning workshop

A key part of this project is sharing the results with the high country community. This newsletter is one way of keeping farmers informed about the projects progress, but we are also planning to hold workshops for high country farmers to talk about some of the results from this research, and from other related work. It is proposed to hold workshops in early November in Methven and Cromwell. Further details will be mailed out closer to the time.

Acknowledgements

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Further information

Further information on the project can be found on:

www.highcountryaccord.co.nz/biodiversity

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Our biggest thanks go to Rodney Patterson – it was his initiative that saw the project born and it is a real tragedy that he is not with us to see its conclusion.