

An overview of the South Canterbury region

D.G. McFARLANE

49 Connolly Street, Geraldine 7930, New Zealand

mcfarld@xtra.co.nz

Welcome to South Canterbury – a region of diversity, innovation and opportunity. I aim to provide you with an overview of the region’s strengths and its potential along with the challenges to be faced. This will not be as a geographer - “Mr Google” could do that job better than I; this will be my personal view as a practical farmer who has been involved in a number of regional developments.

The region has three main landscape and land use features:

- The intensive plain lands comprising free-draining alluvial soils. They are usually irrigated and intensively farmed in a variety of ways. Cropping with cereals, pulses, herbage and vegetable seed production are common, and most of the dairying expansion has occurred on this class of land
- The rolling downs (soils formed from loess) which have been largely used for sheep and beef, dairy support and some cropping
- The vast scenic Mackenzie basin and high country supporting fine wool production, cattle breeding herds, and where farming families are diversifying into providing farm visits for tourists.

These three different land groups join Ashburton county in the North and Oamaru North Otago to the south, and often referred to as the Central South Island region.

The early settlers arrived in the 1850s and farmed large grazing runs. Many of those names (Acland, Trip, Elworthy, Rhodes etc.) still farm here and have contributed much in leadership and innovation over the years. Intensification of land use has continued over many phases as the tussock grassland has been modified by the introduction of improved grasses and clovers, augmented by additions of fertiliser and smart management. The adoption of centre pivot irrigation has led to further dairy expansion and high value crop production. The mixed land use has many advantages. Grazing of dairy cows and the sale of fodder and straw are important for cropping farms. Average dairy herd sizes are amongst the largest for the country.

Primary industries underpin the economic activity of the area, with infrastructure and port facilities supporting a strong export focus. The manufacturing sector is largely based on processing food products, earning the region the reputation as the South Island food bowl producing potato fries, carrot juice, Barker’s blackcurrants, milk products at Fonterra’s Clondeboye factory, specialty cheeses, flour milling, export meat, honey, salmon farming along with an off-shore fishery.

Most of these ventures have been started originally by local entrepreneurs. This spirit of innovation is epitomised by people like Richard Pearce the aviator, Bill Hamilton of jet boat fame and Colin Murdoch with the tranquiliser dart. The region has been a pioneer in deer farming and irrigation for dairy production on shallow soils.

My son Hamish and I operate a 600 ha family farm north of Temuka. In many respects its evolution is representative of the changes experienced by much of Canterbury. Originally a drought-prone dryland farm with low intensity sheep production, it now grows potatoes, blackcurrants, carrots, cereals and grass seed, together with dairy support and winter lamb finishing. This diversity is possible because the whole farm is irrigated by centre pivots with additional water being sourced from the new Rangitata South irrigation scheme. Water has given more choice over the crops to grow and has enabled intensification and increased output. We have elected not to convert to dairying but have integrated cropping systems to provide fodder for dairying friends. Our strategy has been to grow high value seeds and to diversify into products such as blackcurrant and carrot juice, targeted at the wellness and health markets. Technology to ensure optimum water efficiency, precision application of inputs and monitoring of the environmental footprint are now standard, meeting the customer requirements for sustainable farm systems.

So looking ahead, what are the issues and opportunities for South Canterbury:

Continuing innovation

South Canterbury farmers adapt to change quickly. Adaptability is the key to our industries coping with volatility and change. It was Charles Darwin in his work “The Origin of Species” who wrote that the race won’t be won by the fastest, the most colourful or the most intelligent, but by the species that can adapt the quickest. Nothing has changed.

In recent years industry organisations such as Foundation for Arable Research, DairyNZ and Beef + Lamb New Zealand, have done a splendid job of transferring technology to farmers. However, one senses the contribution of agricultural researchers to the pool of innovation is diminishing. Increasingly, it is the transfer of new ideas and good practise from the best performing farmers that is underpinning their advice.

The New Zealand Grassland Association has long

been a champion of innovation and practical research. Continued advocacy is now critical to ensuring agricultural research funding is maintained and that it is directed to front-line work rather than being consumed by continual restructuring and funding requisitioning. The new Lincoln hub has tremendous potential, but it seems a shame to see the facilities and team at Invermay wasted.

Many of the future gains in food production will come from enhanced genetics in both plants and animals. To deny our scientists the modern tools for genetic modification (GM) is short-sighted and demonstrates the public misunderstanding of the role of scientific inquiry. History shows there is always resistance to change but the current antagonism to GM is difficult to understand, especially in light of the overwhelming international evidence in support. The notion that local councils should decide whether GM should be banned from their area is impractical and laughable.

Historically, farmers have coped with declining returns by productivity and production increases. Environmental constraints mean that future returns will need to be driven by adding value in the marketing and supply chain rather than merely producing more. This means investment in innovation.

Water

Water is the new oil and South Canterbury is at the forefront with several new irrigation initiatives including: Morven Glenavy and the Lower Waitaki as the base the Opuha Dam, Rangitata South Irrigation, the Benmore scheme and Waihao Downs have all been developed and are now fully operational. Together with the potential Hunter Downs scheme up to 120 000 ha could be irrigated. South Canterbury has seen more completed schemes than any other region. Also, newer technology such as centre pivots and K-line has enabled irrigation of rolling downlands, affording growth in the future. Because the loess soils have low drainage the loss of nutrients to groundwater is less than for other more permeable soils. Another defining feature is that all of the irrigation schemes utilise stored water by harvesting the high flows of the larger alpine rivers.

The intensification accompanying irrigation has revitalised many of the rural communities, schools and servicing businesses. There has been employment growth on the farm and in the town. Having been associated with a number of these schemes and being passionate about their development, I have no hesitation in saying that water availability is the greatest game changer South Canterbury has experienced in my lifetime.

There are challenges. While irrigation infrastructure is an intergenerational asset the cost is largely falling on the current users. Its costs from 700-\$1000 ha annually

for most new irrigation schemes. A huge hurdle in the current environment, but still economic for intensive croppers, stock finishers and long-term dairy production. I believe the current dairy price downturn is leading to more balanced decisions on land use in new irrigation developments and more diversified land uses. One of the most difficult decisions any new schemes faces is the cost and amount of overbuild to allow for future growth in demand.

Environmental issues

Intensification has positive and negative environmental effects. All new irrigation schemes have comprehensive and monitored farm management plans. In the case of Hunter Downs Water there will be augmentation of the Wainono lagoon, providing the only real option to enhance its water quality. The community and Ngai Tahu have become involved with this project.

This approach mirrors the great work being carried out by the Canterbury Water Management strategy zonal committees throughout the region. Plans have been developed in a collaborative manner on a catchment basis to address water allocation and quality policies under the recently adopted ECAN Land and Water Plan. Overall, the community accepts that it lives in a modified environment. However, the trick is to get the right balance between development of land resources and the environment. Farmers accept that future trust of the community will have to be earned. Therefore there is a need to be proactive and work collaboratively to develop practical monitoring and self-management policies rather than have them imposed. This will take time and will require patience. Already there have been major changes in farm management around waterways, winter crops, fertiliser and irrigation management. Farmers have been slow to take ownership of the issues in the past. I think that has changed and there is real understanding and commitment to accepting the challenge. However, inevitably, it will require regulation to bring the tail end into line.

The recent contamination of fodder beet seed lines and the entry of several pests from overseas highlight the critical issue of biosecurity to agriculture and the environment. This is an area of concern to farmers and conservationists alike.

Tourism

Visitors to the region are major contributors to regional gross domestic product, especially in the Mackenzie basin. The mountains tussock vistas and clear night skies are unique. Visitor numbers are growing by over 20% annually. How do we maintain the balance between visitor expectations and the requirements of modern farming? Low intensity tussock grassland management co-exists comfortably in this equation, but modern

farmers will want to undertake land development and irrigation to improve production and profitability. Most people would acknowledge that providing natural corridors to protect the vista is desirable. How do we resolve the cost to a farmer who is unable to implement developments which increase viability, while facing constraints imposed to maintain visitor appeal?

Increasing areas are now part of the Department of Conservation estate. The challenge of managing these areas for their aesthetic qualities and public access is huge. The stewardship responsibility of minimising

pest and vegetation ingress is costly. A partnership between farmers, researchers and conservationists offers the most viable solution.

Conclusion

I have highlighted the diversity, opportunities and challenges of the South Canterbury region. Many are shared with other regions, but the spirit of innovation and progressive leadership ensures progress for the benefit of the whole community.

Enjoy the conference.

