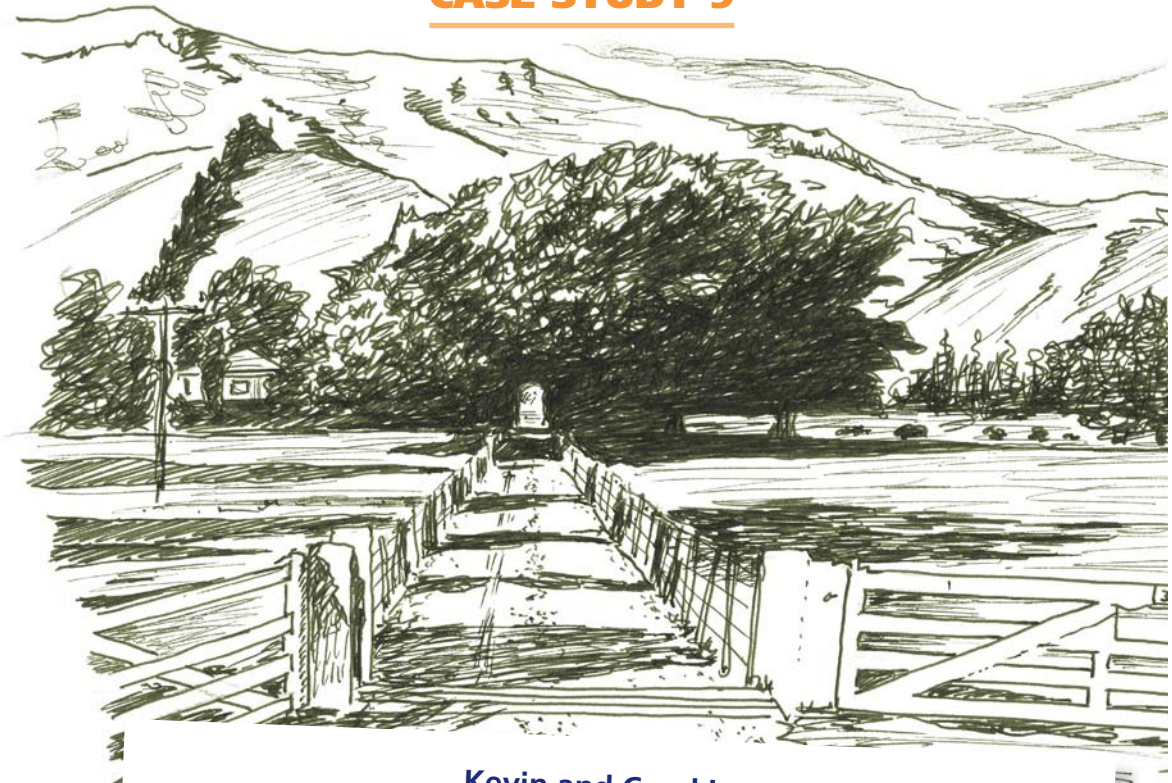
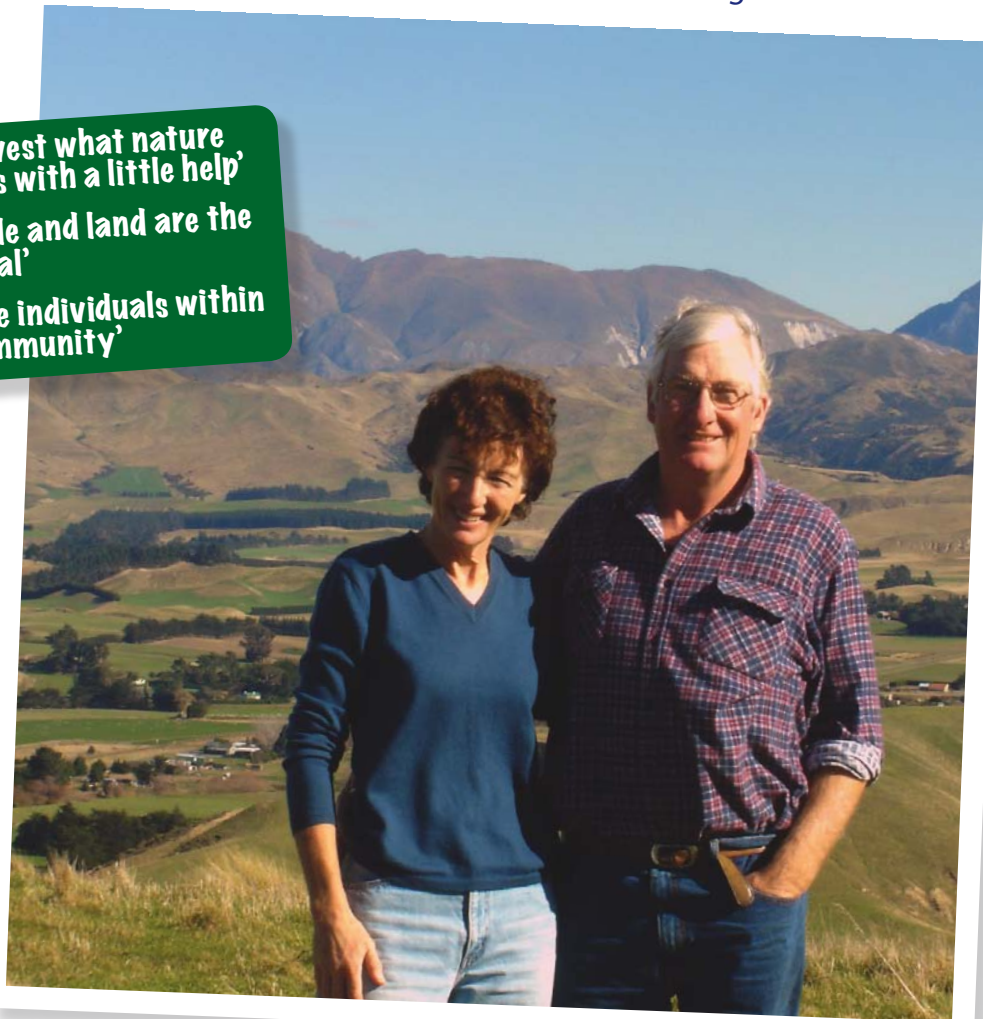


CASE STUDY 9



Kevin and Carol Loe,
The Homestead, Ward, Marlborough

**'I harvest what nature
allows with a little help'
'People and land are the
capital'
'We're individuals within
a community'**



Key facts

Farm size and type: 1880 ha in three titles. The farm is coastal dry hill country.

Production focus: Sheep and cattle. The focus is strongly on matching animal production with the ecological potential of the land and moving stock through the farm.

Soil type: There are three main soil types: The coastal lowland area is made up of Amuri clay loams, the majority of the farm is easy limestone and sandstone country; flats are Flaxbourne River silts.



Climate: Average rainfall is about 560mm (can range from 380mm (or less) to around 1300mm). Kevin has farmed with as much as 1200mm and as little as 290mm and is continually working with the question 'what is ideal stocking rate for this range?'

Water: They are relatively self-sufficient with water. The property is fed with natural springs which are tapped for stock water and there are some dams on the farm. Water



Kevin sees their operation not as a farm, but as a family business.

supply is being seriously tested at present, with urgent development required.

Vegetation: The native vegetation on the farm has been surveyed as part of the Marlborough District Council's Natural Areas Project. In their original approach to Kevin the Council wanted him to fence off a large area of recently acquired land. Kevin questioned why they needed to fence off so much, given that the scrub has developed in the presence of grazing animals over the last 150 years. The focus is now on fencing off some of the more special areas (including a gully containing silver fern specimens) and monitoring the effects of grazing on scrub in other areas.

Social: The picture has changed over time, with Kevin's wife and family becoming a lot more involved. He sees their operation not as a farm, but as a family business. His wife is chairman of the board, taking responsibility for the underlying mechanics of the business and Kevin the general manager doing the forward, visionary, planning. They have four adult children, a daughter and three sons. His succession philosophy is that he started in a dinghy, which leaked a bit. He thought the way of curing it was to get a bigger dinghy, which still had holes. He eventually got a yacht, found a way to plug the holes and repaired the pumps by the fact that the children are now educated. Now that it is up and sailing all the children need to do is tell him which way to tack.

Main climate features and challenges

There has been less reliability with the weather in the last 12 years. Three years out of four there is no seasonality any more in terms of the timing of rain.

Wind: Northerlies (NE to NW) and southerlies prevail at different times of the year. Southerlies are no longer a reliable source of rain and north-easterlies hadn't brought rain since 1996 until autumn 2005. The main effects of wind are related to prolonged dry conditions, which are having serious consequences for all farmers in the area in terms of wind erosion.

Rain: There is a lack of rain. Kevin takes the approach that the farm halves in size when the rain stops. Everything that faces the north is in negative growth during these times. Prolonged drought has been a serious problem over the last seven to eight years. Recent rains have helped but some faces remain severely challenged.



Historical development and influence of climate and weather extremes

Period

Production focus and major changes
Climate and weather effects

1905

Kevin's grandfather purchased the farm, which was originally part of Flaxbourne Station, South Island's first sheep station.

1950s-60s

Kevin's father and uncle owned the farm during this time and were running Romney-cross sheep and Shorthorn-cross cattle.

There was major drought in 1958. They sold all their stock. In the period up to 1960 they restocked with high quality Angus cattle and Corriedale ewes. This was one of the first experiences of destocking and not losing out.

1970s

An all-cattle policy was developed by Kevin's father and uncle to simplify management. They were very progressive. A fertiliser regime was well established, new plant species were introduced, they were breaking in land and cropping kale etc. on the flats. Kevin took over in 1979. He created a ewe flock with a 60 percent sheep, 40 percent cattle, balance, mostly because he couldn't afford the cattle when he started.

Kevin began farming in 1973 during a drought. Survived off silage.

1980s & 90s

A lot of fencing was done and a rotational grazing system introduced. Kevin started to question what he was doing. He shifted to a greater weighting of cattle and became more flexible in stocking movements. He found cattle to be more flexible than sheep. Flexibility is the key. During this period there were also many unsuccessful tree plantings (for shade and shelter) – which became soul-destroying work. Kevin realised that in this country it was cheaper for him to buy an acre next door than to develop an acre of existing land. He has developed a philosophy of 'do nothing unless you are going to get an obvious result'.

There were lots of droughts, plus the removal of SMPs. Droughts are the cruel ones. A lot of lessons were learnt during this time.

1980, Cyclone Allison. They had 380mm of rain in a week (200mm in 12 hours, which is huge for them). About 28ha of slips were re-sown by helicopter.

Present

During the current prolonged dry period Kevin has observed his immediate environment – his family, staff, the land, animals – and everything is so relaxed. His approach is to keep things as simple as possible. He would love his children to have another go at tree planting (for shelter and shade), which he got quite burnt out with.

They have experienced prolonged drought since 1996, up until November 2005. There was 11 months' respite in 2001. The ground water table isn't being replenished throughout eastern Marlborough. They need a prolonged wet winter and spring for this to happen.



Adaptations to develop the resilience of the farm

Kevin and Carol have learnt their lessons from droughts and adjusted their ecological and economic picture. They have evolved towards a more ecological approach to farming by identifying and working with the limits of their land and climate. Their capital is land and people. Kevin no longer refers to 'capital stock' as he has seen too many farmers eroding their capital by holding on to them and bearing the cost of feed. Production can be maximised from the farm in the July/August period. They concentrate around this period, then move stock through, with lower stocking rates through the summer months. The ecological management picture has been enhanced through involvement with Marlborough District Council in its ecological areas project. An ecologist has been over the farm and ecological areas are being fenced off. Over time they have learnt the value of native scrub species – where trees have failed, scrub succeeds.

The family has farmed successfully through a prolonged drought period and so there is plenty of optimism for the future. Kevin has identified that the biggest climate resource he has is plentiful sunshine, which he is working to take maximum advantage of.

Forestry/trees: They have planted some trees successfully, principally as windbreaks, but overall had a lot of failures with tree plantings in the 80s. They have learnt the value of native woody scrub, including tauhinu and matagouri. Reversion to scrub accelerated during the extended drought from the mid to late 1990s and has been found to be beneficial. They are working with the Marlborough District Council to manage the native vegetation, which is well adapted to the dry climate and is thus an asset to the farm as a whole. Some native areas with special features are being fenced, while extensive scrubby areas are being managed as part of a whole farm ecological management picture.

Benefits: The scrub provides a number of benefits – soil protection and enhancement, low shelter, moisture retention, biodiversity.

Information/support: The Marlborough District Council ecological zones project.

Constraints: Wind (and probably dry conditions) has been the biggest constraint to successful establishment of trees, particularly in the more exposed coastal part of the farm.

Water: The farm has a number of natural springs, most of which are used to feed troughs. Some springs have dried up as a

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They are presently tidying up the spring systems on the farm.

result of prolonged drought, but generally they are well supplied with water. They are presently tidying up the spring systems on the farm. Stock numbers are varied to match with water availability as outlined below.

Diversification: Aside from the sheep and cattle farming, the family has diversified into breeding Polo ponies and is involved with developing eco-tourism ideas. The latter is presently focused on development of a coastal Cape Campbell walkway in conjunction with a neighbouring property.

This is due to open in October 2005. Kevin is involved with a group of farmers and business people in developing a simple, integrated, total farm business information system (FarmHQ). The purpose of this is to assist with farm monitoring, planning and for quality assurance.

Soil: Wind erosion is a big problem, particularly on the coastal part of the property where prolonged drought and persistent dry winds from north and south have taken their toll. They are working more to protect the soil reservoir. To retain some soil

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moisture you need some ground cover. This is where the value of native woody scrub is being recognised, along with careful pasture and stock management.

Pasture: A low-input approach is taken to pasture management. The main concern at present is the decline of clover populations as a result of prolonged drought, and the ecological consequences of that, for example, in terms of effects on bee populations. Kevin has been trying to get a good seed set of clover for the last two years and will be continuing to work on this over the next few years.

Stock management: Flexibility is the key. About 80 percent of New Zealand stock is in summer-wet areas. They have learnt to take advantage of this in the dryland Marlborough climate, with an emphasis on higher stocking rates in July-October (main grass production on the farm) and destocking in summer.

Benefits: Working with the land ecologically. Matching the biological harvest to the capacity of the land. Animals are treated as energy units moving through the farm.

Information/support: Kevin challenged conventional thinking.

Energy: You need to factor human energy into the ecological management picture.

Infrastructure: A low-maintenance approach is taken to farm infrastructure. The rationale is to be smart in terms of what gives the best economic and ecological returns. This is achieved by managing energy flows.

Meso connections

Kevin observes others and recognises that different people approach things differently. You can't clone people.

The demand for coastal property is an increasing pressure. They are currently addressing this through working with neighbours to develop a commercial walkway.

Water rights are an issue in Marlborough. Kevin would rather have no water than fight everyone jumping in. The local community, through the local Settlers' Association of which Kevin is chairman, has formed a Flaxbourne water enhancement group. They recently applied to the SFF and Marlborough District Council for funds to investigate potential sources of water for stock, domestic supply, and irrigation to meet the present and future needs of the whole community. SFF turned them down but the District Council has picked it up and is funding a full evaluation.

There is a positive attitude towards the Marlborough District Council. The Council staff who are working with Kevin are very intrigued by what he is doing on his farm and are proactive and supportive. Kevin believes in working with people, whereas many put up a block (for example with council rules). 'We can only influence policy by being proactive and being prepared to learn together.'

