

Ballance Nutrient Management Award

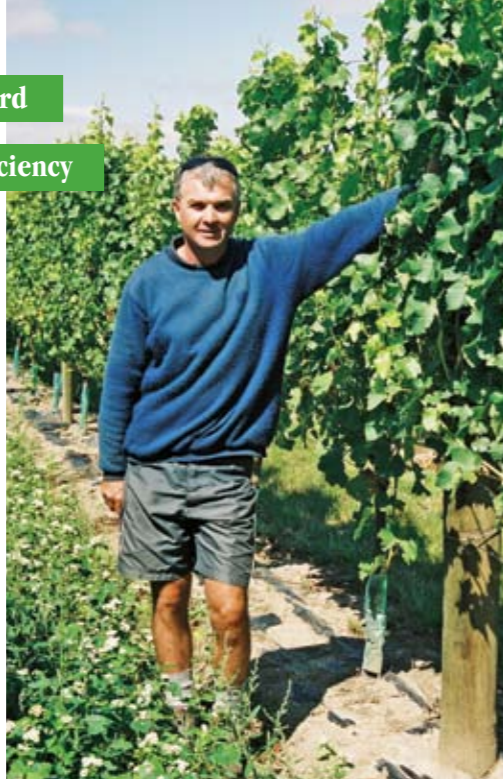
Environment Canterbury Water Efficiency

Jean-Luc & Sarah Dufour

Meticulous attention to water and nutrient management has been a feature of Jean-Luc Dufour's work as viticulturist at Canterbury House vineyard at Waipara. The vineyard is established on a largely frost-free site on stony soils which have little water retention and are poor in nutrients and organic matter.

Under his careful management the vineyard has gone from strength to strength and Canterbury House wines have won a number of top awards at the prestigious annual Air New Zealand Wine Awards. Irrigation is from artesian water; a resource that is used sparingly. "Because water is not retained in the soil profile we have to have close control of the water status of the soil and the plants" he says. The trickle irrigation system is designed to deliver up to 12 litres a day to each vine, but on average Waipara vines need about 6 litres. "We have to monitor it very closely. In January the vines may lose 8 to 10 litres a day, and we have to compensate for that."

A neutron probe is used to measure soil moisture, and a leaf testing technique, PMS, is used to test the moisture status of the vines. Equally close control is maintained over the nutrient status of the vineyard. Soil nutrient is measured in winter, while leaf analysis is done in December and at grape ripening. Jean-Luc says the vineyard requires very small amounts of added nutrient, mainly lime and some phosphate. The vineyard follows a sustainable viticulture scheme, aiming



at best management practice for the soil, the environment, employment, and the wine. However, Canterbury House has gone beyond the minimum guidelines, and is aiming for biological control of pests. "We haven't used insecticides for the last three years" he says. Buckwheat is planted in the vineyard as a source of nectar for a wasp that is a predator of the leaf roller caterpillar. Work is underway to find native plants that perform the same function. "Grapes are very much a monoculture and we are really concentrating on bringing biodiversity into the vineyard."

Ballance Nutrient Management Award: What the judges said...

- Fertiliser needs are based on accurate and extensive soil and foliar testing.
- Incorporates fertiliser into the irrigation system.
- Does nutrient budgeting.

Environment Canterbury Water Efficiency Award: What the judges said...

- Has a deficit irrigation system to maximise crop quality and minimise water use.
- Measures both soil moisture and plant leaf moisture stress.
- Restricts irrigation to minimise disease and canopy management.

Finalists - Why?

Alan and Alison Grant

A feature of this property was sound commercial management underpinning long term sustainability.

Pat and Bill Foster

Excellent teamwork has resulted in a well run property which continues to challenge existing systems.

Jens and Anne Ravn and Steve and Josie Sterne

Large scale operation led by a partnership of families based on progressive husbandry and commitment to people.

Mark and Simon Wilson

Application of best management practice to continue a strong legacy of sustainable farming practices.

David Jones

Passion for pasture management and high quality stock has led to excellent production performance.

Cara and John Gregan

Matching their farming policy to the opportunities and constraints of their physical environment.

Graham and Eleanor Marr

Over five generations of love of the land in a challenging environment has led to a top producing sustainable property.

Jean-Luc and Sarah Dufour

Desire to craft high quality wine that is produced as a result of careful monitoring and measuring of the inputs and outputs.

Peter Handyside

Combination of farming with tourism and bush protection provided for a sustainable operation.

For more information on the Ballance Farm Environment Awards in the Canterbury region contact the Canterbury Coordinator. Ph: 03 353 9711 Email: bfea@ecan.govt.nz web: www.ecan.govt.nz/bfea.html

BFEA 2006 Where are we?

Ted Coats - National Judging Coordinator

2006 is another exciting year for the Ballance Farm Environment Awards with farmers taking part in eight regional council areas. Taking a national view, there have been some visible trends.

Diversity of entries

While at one time most entrants were sheep, beef, dairy or arable, and were easy to put in the right pigeon-hole, now it is much more difficult to categorise them. We have more horticulture, and tourism, more integrated systems such as pigs or poultry in combination with arable. In short, there is a great deal more variety. While this brings challenges for judges, needing a broader base of knowledge, it shows that the entrepreneur is alive and well in NZ agribusiness.

Acceptance of debate

Over the past year or so the case for care of the environment has been proven in the minds of many more farmers. It is now a subject for discussion, not one to be avoided, and future-proofing the production base in agriculture is seen as sensible - even essential.

We are moving from

- Seeing environmental protection as a cost to
- Seeing it as reinforcing our present marketing position internationally, with all the benefits that it brings.

Promotion of good practice

The case for environmental protection may be accepted, but there is now a need for guidance, solutions, and advice on a host of topics - mitigation strategies, nutrient use efficiencies, shelter types - the list is enormous.

The role of the Ballance Farm Environment Awards in providing farmers and their advisory networks with examples and information has never been more pertinent. The Ballance Farm Environment Awards' role is now more relevant and urgently required than ever.

The value to New Zealand of progress in environmental management is very high - a win-win for the public on the one hand and market value for farmers on the other.

Field Day

Come and visit David Jones's award winning Farm.

Thursday 27 April 2006
Strathcro Farm, 130 Achray Road Rotherham

Watch your local newspapers for further details or visit www.ecan.govt.nz/bfea.html or email: bfea@ecan.govt.nz

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FARM ENVIRONMENT AWARDS

2006 Canterbury Supreme Award Winner

Supreme Award and Livestock Improvement Dairy Farm Award

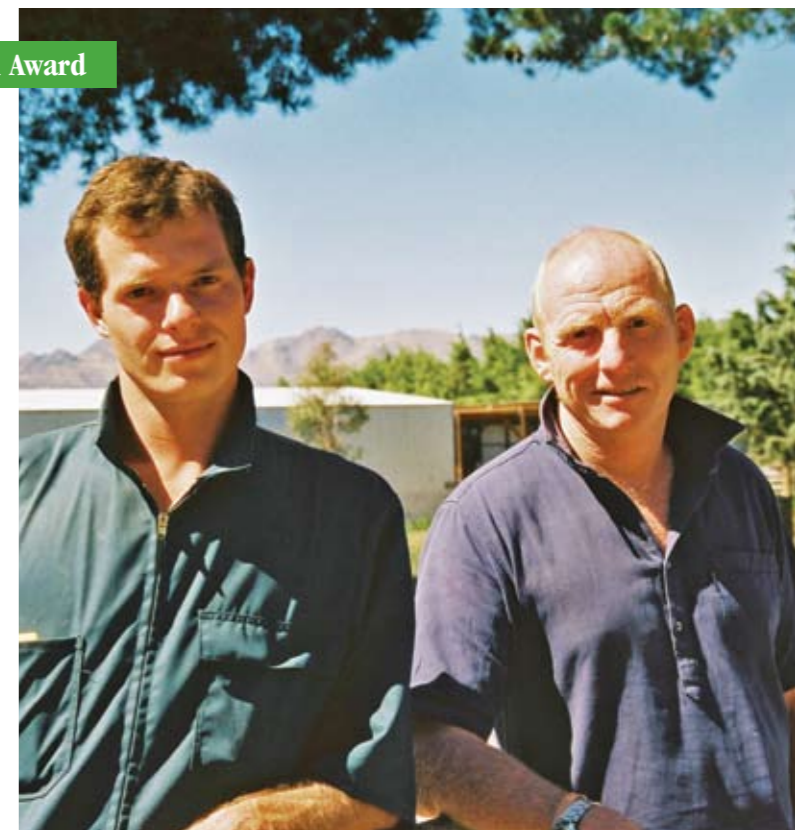
David Jones

For this year's supreme winner, dairy farming is about running top quality cows on high performance pasture without damaging the environment. David Jones's dairy farm at Rotherham in North Canterbury milks 500 cows and produces 230,000kg of milksolids a year off 178ha of land of which 160ha is effective. David, who also won the Livestock Improvement Dairy Farm Award, is not a man just chasing top milk production. He also aims for sustainable land management, strong animal welfare practices, sound employment conditions, and an attractive property to live and work on. "It's a fairly simple operation which I believe is sustainable. I think we've got the scale about right, and it's a pleasant, very profitable, but also sustainable operation to be involved in."

David and his late wife Cathy started developing the property in 1999. Gradually they changed the borderdyke irrigation system to more efficient spray irrigation. Gun irrigators are used rather than a centre pivot so that shelter belts can be retained. "Spray irrigation enabled us to move on to a completely new plane" he says. "It gave us much more control and opened up new opportunities on the farm." In particular spray irrigation has enabled him to utilise a range of the newest grasses, and much of the farm has been regressed for a second time using ARI ryegrass. "We used ARI because we became increasingly aware high endophytic grass was damaging the per cow performance, and that was putting a ceiling on our summer performance." He believes he has developed a relatively simple operation which is sustainable. "My real interest is high performance cows on high performance pasture. It's possible to do without damaging the environment simply by following good practice."

Over the last two years he has planted 4500 trees on the property for shade and shelter. "I'm happy spending money on the environment, but will only be able to do that with a strong, profitable business." David says dairy farming is not just about milking cows. "I enjoy the whole ethos of farming, especially the people side of it. Canterbury's been such a melting pot of dairy farmers from all over New Zealand and indeed the world. I'm excited to be part of it."

Farm manager Sasha Shulyak is in day-to-day charge of farming operations, but David says he still has his finger on the pulse of the farm. Close monitoring of water use and nutrient budgeting are important aspects of the operation. A nitrate inhibitor is used across the farm to reduce nitrate leaching through the soil, and where effluent is sprayed on



Sasha (farm manager) and David (owner).

to paddocks no additional nitrogen is used. Effluent is seen as a resource on the farm, and is strategically applied to poorer land and to shelter belts to stimulate growth. David Jones says that he has always enjoyed farming, but his wife's illness and death was a big setback. "Entering the award helped me rediscover what an enjoyable and rewarding business farming can be."

What the judges said...

- Passion for pastures and livestock is strongly reflected in production.
- Applies best scientific research in a practical manner.
- Works collaboratively to address local industry issues.





Hill Laboratories Harvest Award

Graham and Eleanor Marr

Soil protection is crucial to Graham and Eleanor Marr's arable farming operation on the high Canterbury Plains inland from Methven. The area is at the outside limit of arable farming in Canterbury, but careful soil husbandry on the family-owned farm since 1878 has allowed a sustainable growing regime to be maintained. "The prime motivation for us is the protection of the soil" Graham says. The 375ha farm is between Methven and Mount Hutt. It has good rainfall, but the biggest factor influencing production is the strong nor'westers which blow out of the Rakaia Gorge.

The Marrs specialise in cocksfoot seed production, which the family has been growing since 1913. Most of it is exported. This year the tried-and-trusted cocksfoot made up about 40 per cent of the arable area, while 45 per cent was in cereals, 9 per cent in peas, and small areas were planted in vegetable seeds and red clover.

Cocksfoot is grown for five to seven years and then is spelled for at least three years when mainly barley and peas are grown. The Marrs buy in up to 2000 lambs and sell them on winter contract. They also graze 400 dairy cows during the winter.

Having cocksfoot in the ground for a long period aids soil retention in this windy environment, as does the tree planting that has been done over the generations to provide shelter from the nor'wester. The time of crop planting is also geared to minimising soil erosion. Crops are not sown during the winter months to avoid wind damage to exposed soils due to frost lift.

What the judges said...

- Developed soil conservation techniques to suit their environment.
- Cleverly places shelter and paddocks.
- Highly respected Cocksfoot seed harvest and drying system.



Wrightson Habitat Improvement Award

Peter Handyside

A combination of farming and tourism is allowing the Handyside family of Conway Flat to run a productive farm while at the same time protecting its stunning natural features.

Peter is largely responsible for the farming side of the Medina property, while his parents David and Sally are commercially involved with the successful Kaikoura walking track, which runs across several farms in the area.

The property has been in the family since it was established as a soldier-settler block by Peter's grandfather. Peter took over the farming operation from his parents in 2001. Of the 580ha about 380ha is in grass and much of the rest is in native bush and scrub. Some of the bush has never been logged, and is among the best remaining examples of coastal bush in Canterbury. In 2003 38ha of bush was put under QEII covenant.

About one-third of the farm is flat and the rest is rolling downs. Production has been focused away from significant native habitats. The farming operation runs about 1800 composite breeding ewes and is calving about 70 angus cows.

Because the property is summer-dry they try to sell their lambs before Christmas as store lambs. Peter says there is a lot of potential to lift production. He says that being part of the Kaikoura track enables his parents to continue to make an income off the property. About 15 per cent of the total farm income comes from the track.

What the judges said...

- Has a diverse well blended range of native and exotic plantings for amenity, timber and shelter.
- Successfully integrates tourism and farming
- Has three generations of native planting and management of trees.



Gallagher Innovation Award

Steve and Josie Sterne and Anne and Jens Ravn

Two families who set up a big pig farming operation in North Canterbury believe pig farming is best suited to large farms in remote locations. They set up Patoa Farms Ltd eight years ago on flat terrace country with poor soils near Hawarden. Jens and Steve had known each other from childhood, and both had established small pig farms not too far from Christchurch. "We were both independently looking to get bigger farms" says Jens. "One day we said why don't we do it together. "We were both looking to move further away from Christchurch. I think pig farming is much better done on large farms and in remoter areas. You can manage them better."

In 1998 the two couples bought 416ha, and last year added another 118ha. They run 3300 sows, and finish the progeny for bacon. In all about 65,000 pigs are slaughtered annually from the farm. Jens says free-range pig farming is best practiced on free draining sites where there is no mud in winter. It is a system that minimised adverse environmental effects and animal health issues.

"Keeping sows outdoors has many advantages including animal welfare. Provided you have correct stocking rates and the land is spelled periodically it is sustainable on light ground." Another important feature of their operation is the use of a straw-based finishing system. This produces usable compost at the end of the operation, and the pigs love living on straw. The used straw is windrowed and then sold as compost.

He says other goals include modifying the finishing system to reduce costs. "We want to be here long term." The operation is a big employer for North Canterbury, employing 50 full time equivalents. "In terms of being sustainable we had to learn quite a bit about managing people and helping them to develop and work as teams" Jens says. "That's been a very significant part of the operation for the last two years."

What the judges said...

- Innovatively approaches the development and management of staff in a large scale rural business.
- Provides a healthy straw based farrowing hut environment for their pigs.
- Combines an auto-sort system with purpose built barns to gain more carcasses in the optimum weight range.

Rabobank Land and Life Award

Mark and Simon Wilson

Strong family involvement and intelligent ways of managing the constraints of their North Canterbury farm are strong features of Mark and Simon Wilson's livestock operation. On the 830ha farm near Hawarden they run 5500 coopworth-texel breeding ewes, and fatten cattle. In recent years direct drilling has been a major push on the farm. It is seen as a way of increasing productivity without damaging the fragile environment. "We have quite productive hills, but we were so nervous about soil erosion that we didn't want to touch them" Simon says.

Direct drilling has allowed them to re-sow a much larger area of grass and grow crops to increase performance of the ewes. They found a cross-slot drill was needed on the range of soil types to give consistent and high yielding results. Direct drilling has led to better moisture retention and improved soil structure, as well as time and fuel savings. Family involvement in the farm and in the local community is important in the way the Wilson's operate. Simon and his wife Sam, and Mark and his wife Helen, and their children are all involved, as are Mark and Simon's parents Jo and Bill.

"There's so many people on the farm we can bounce ideas off each other". "We are involved in the local community in a big way. I guess that stemmed from Jo and Bill" Simon says. The Amuri St John Ambulance has benefited greatly over the years from the Wilson's involvement, as has the Hawarden A & P Association and local sports organisations.

What the judges said...

- Commitment to the longevity of their community is evident from the families intergenerational support of a wide range of local causes.
- Manages the physical constraints through good shelter, fodder conservation, breed selection and direct drilling.



PPCS Livestock Farm Award

Cara and John Gregan and family

John and Cara Gregan's South Canterbury farm is a top producing livestock operation with an underlying ethos towards sustainability. They farm sheep and cattle on 330ha of freehold and 370ha of leasehold land. The main focus of their sheep operation is as a breeding partner with Rissington Breedline's Sheeplink Programme. This means they breed ewe lambs from their breeding flock of 7500 Highlander composite ewes to sell to Rissington as ewe lambs for breeding stock. The ram lambs are sold as prime lambs, and they trade cattle.

The dryland farm has an easy contour, and is subdivided into small paddocks making stock shifting easier, and allowing for better stock management and grass utilisation. Regrassing is carried out using direct drilling to conserve soil moisture and reduce erosion. "We haven't ploughed a paddock for 10 years" John says. Wood lots and plenty of shelter belts have been planted, and they recently fenced off 5ha of wetland and are planting the area in native trees and shrubs to encourage wildlife.

They hope a lot of the run-off from the farm will be filtered through the wetland, which should improve the quality of water downstream. Cara has a strong interest in recycling and was responsible for starting a local recycling station. John says they monitor the operation closely and will continue doing that. "Hopefully that will ensure we are doing things sustainably and the long term viability will continue.

"It's a family farm. My grandfather and father were here, and hopefully we'll leave it better than when we arrived."

What the judges said...

- Refencing and access lanes allow for ease of stock and pasture management.
- Has fenced out a wetland and created a planted fenced off seepage runoff.
- Uses high performance Highlander sheep with intense management and a sound marketing plan.