

Article for Press Perspective  
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## **Farming on the Plains: what are the choices?**

*Arable farmer Andrew Gillanders says that irrigating the Central Canterbury Plains will improve the prospects for cropping, horticulture and fresh vegetable production.*

Everybody thinks New Zealand farmers are good at producing meat and dairy products. The fact is we're actually good at growing grass, but little is known of the cropping side. While we may not have the scale, Canterbury croppers are world-leading producers of cereals per hectare.

The Canterbury Plains are one of New Zealand's largest arable agricultural areas, producing 80% of the nation's grains and seeds. Canterbury's consumer food, animal feed and grass and vegetable seed sectors are worth \$160 million in export earnings and \$4 billion to the economy as a whole.

Of exports, \$30 million is from vegetable seed (50% of the world's radishes and carrots are grown from New Zealand seed), \$15 million from white clover and \$20 million from other grass seeds.

On top of arable crops, Canterbury farmers grow and export a wide range of vegetables, including onions, potatoes, squash and carrots. Add in the actual and potential earnings from viticulture and horticulture, and you can see the prospects for high value use of irrigated land are attractive.

The central plains offer significant advantages for export crops – proximity to the international airport and the South Island's largest seaport; the alluvial soils allow early harvesting even after a boggy winter like the last, which means produce can get to market earlier; and the partnerships with agricultural science at Lincoln, where new crops are always being bred for our conditions.

Alternative crops are likely to thrive in the climate and soils of Central Canterbury – crops such as alfalfa and bean sprouts, sunflowers and industrial hemp. Their uses are in established, higher value markets – cosmetics, health food and natural health remedies.

Then there are the opportunities to provide enhanced animal feeds. Arable farming has proved essential in assisting local livestock farmers during this winter's cold snap with extra feed. Regardless of forage availability, we are developing a market in providing grain for high quality meat producers. On the horizon is a 'smart' cereal that will give our animal feed a competitive advantage. Researchers have identified fungi called endophytes that make the grass healthier for animals and give better animal growth performance.

New Zealand arable farmers have shown the knack of picking the best technology in the world and adapting it to our uses. We are always striving to

do better. If we had reliable water supply, we would increase the area growing higher value products and have less dependency on commodity crops, or grow commodity crops that have specialised use.

However, without irrigation arable farmers take a lot of risk. Arable farmers can wait 12-18 months to be paid an economic return from the crop. In some cases the lack of water is the difference between a good and a bad year.

Irrigation provides farmers with the certainty to grow a wide variety of produce. The unique thing about the proposed Central Plains Water Scheme is the fact that it incorporates water storage distributed through surface water channels, for use in dry periods and to prevent drawing groundwater to unsustainable levels. That makes the difference to farmers by providing them with a certainty of supply that supports investment in a much larger variety of crops.

My family has farmed the same block near Darfield for 140 years and our history is defined by the constant search for new water supplies. My property can yo-yo from less than 4 tonnes of cereal production one year to 8 tonnes per hectare the next, and back again, depending on rainfall among other factors. There's little certainty at the best of times – but at least with irrigation you take the rainfall risk element out of it.

I also believe that an irrigation scheme such as proposed by Central Plains Water will transform places like Darfield. There will be larger schools, pools, sporting and recreation facilities, new medical and emergency facilities and food processing factories. The Darfield Seed Cleaning Company has been one of the successes and it's only a start. People in rural areas want the same services as city-dwellers and, while they prefer living in the country, they don't necessarily want to drive all the way into town to get the benefits of an urban lifestyle.

I've heard concerns that intensive cropping will increase nitrate levels in the soil – these concerns are addressed by the scheme's Sustainable Management Agreement, which identifies best practices to be adopted by users of the scheme. They're also addressed by the cropping industry's Code of Practice, which includes the use of certified fertilisers and spreading machines.

Nitrogen is expensive to the farmer and we want to minimise its use and, by good management, avoid loss to groundwater. We can accurately test how much nitrogen is in the soil and how much that plant will convert before adding more fertiliser.

In the same way, we need to ensure water is not wasted but delivered efficiently to the plants. Irrigation equipment is far more sophisticated than even five years ago, and the technology changes all the time. There are systems now for monitoring plant requirements, checking evapo-transpiration rates, soil moisture holding capacity. We now have weather stations we can

log onto so we can time our water application to avoid flushing nitrates into the soil as well as water wastage.

So sustainability is not an issue. The issue is whether we continue on this current path, remain vulnerable to climatic conditions, and stay dependent on supplying what we know best – commodity products. Or do we change and meet the needs of our customers. My view is that nothing can stay the same. If you try to stay the same you are going to get left behind. The rest of the world will move on. Other grain-growing countries are as good as us at producing commodities and are better resourced to gain effective economies of scale.

In the end, I want to grow good products that processors can turn into tasty, nutritional food for New Zealand's and other country's healthy lifestyles.

For my family's health and well-being, I want to be able to buy New Zealand-grown product, processed in New Zealand and available fresh every day. Why would I not want the same for all New Zealanders?

*Andrew Gillanders is Chairman of the Grains Council of New Zealand, the arable industry group of Federated Farmers of New Zealand. He is also a member of the Ritso Society, a group of Selwyn District farmers and business people interested in realising the vision of nineteenth century Malvern County engineer GF Ritso for an irrigation scheme for the central plains.*

*"The arable farmer will use specialist knowledge at all stages of the chain to develop and successfully market innovative, customised products that satisfy consumer needs for: health and well-being lifestyle food products; high value plant and seed extracts; specialist seed services; high value white meat products; consistency of quality from the paddock to the plate." – Extract from 'A strategic framework for the arable food industry' July 2004.*