

Butter, milk and cheese, fundamentals of our diet, are costing more. Last month price increases were 23, 4 and 11%, respectively. Headlines in the press, echoing The Listener's October cover, ask 'Why soaring food prices spell the end of the age of plenty...?'

In developed countries we pay less than 10 % of discretionary income for food, but with demand for biofuel, increased protein requirements in developing countries, and ever increasing regulations on food production systems... and no more usable land..., predictions in the UK are that future food bills could take 25% of discretionary income for food.

Combating the escalating costs will take ingenuity. It will take innovative and creative research at all stages of the production system, and it will require efficient uptake of advances by farmers, growers, processors and marketers.

The New Zealand Grasslands Association annual conference was held in Taupo this week. Under the general theme of 'Future proofing profitable farming', discussions on fertilisers and traits of particular plant species and cultivars were high on the agenda. Farmers and researchers are focused on finding a better way to produce quality food in sustainable fashion.

Nitrogen management, for instance, is being addressed by scientists, industry personnel and farmers working together to evaluate options. These include new grass cultivars with high sugar (so that more of the nitrogen in the grass is used within the cow), supplements such as maize or lucerne (again to 'sop up' extra nitrogen), and chemical inhibitors to slow down losses of nitrogen from the soil.

At the same time, legislation is being imposed on farmers (e.g., caps on nitrogen use, particularly in sensitive areas such as Taupo) to limit the amount of fertiliser which can be applied.

The trouble is, nitrogen fertiliser drives productivity, and as land prices increase, the debts farmers are servicing are increasing. They need to use nitrogen to create profit. Mike Barton, a farmer and Chair of Taupo Lake Care, agrees that in New Zealand the environmental costs of production have not been internalised by farmers, but points out that New Zealand will not be able to achieve 4% productivity gains under a nitrogen cap. Of further concern is that primary production competitors such as Argentina, Australia, China and Pakistan are not capped and so will be able to achieve higher efficiencies, higher yields and greater profitability – New Zealand will not be able to compete.

Research has already produced some tools for farmers, but many more are needed if New Zealand's economy is to continue to grow. It is sustainable management of grasslands in New Zealand that determines the country's productivity as well as its tourism and film production potential.

It also determines the food bill.

Since the 1930s, expenditure on food for a household has fallen steadily from 25% of discretionary income to its present level of just under 10%. Although the swing could be mitigated at the personal level by buying less (50% of food is thrown away in UK and USA) and shopping wisely (the Consumer Institute suggests hunting for bargains – presumably by foot to save fuel), the biggest difference, particularly in sustainable production systems, will come from research.

Advances in understanding and technologies behind the farm gate and at all stages on the primary production processing chain, adding value at every stage, are required to prevent unwelcome increases in costs to the household.

Dr John Caradus, President of the New Zealand Grasslands Association, summed up the feeling of the meeting “We must increase the value of the output and decrease the costs of the inputs. This will take increased funding for excellent research leading to innovation. It will also take the implementation of technological advances to enable farmers to produce more from less. Only then will New Zealand regain its leadership in sustainable production of high quality food.”

*Professor Jacqueline Rowarth, Director, Massey Agriculture, is a member of the New Zealand Grasslands Association's Executive Committee.*