Canterbury 'Growing for good' Workshop, 7 February 2005

Key Take-home Messages

This section lists the key take-home messages from the Canterbury workshop only.

The Importance of Farming to New Zealand's Wealth

- Risk is medium to high and needs immediate action.

Effects of Intensification on Natural Capital

- We have some tools to monitor the sustainability of agriculture, but how effective are they? One difficulty is that outside drivers affect the sustainability of agriculture
- We need to be able to measure natural capital so it can be included in the economic and accounting models. Triple bottom line accounting and reporting are needed
- Farmers want to run a sustainable system
- Helping individual farmers to understand their own farm's impacts would be useful – develop information systems to allow this
- Understanding true costs is very important and there has been a lot of work done on this in the UK. Internalising externalities.

Understanding the Impact of Economic and Social Drivers

- Need wider understanding of wider economic system and drivers.

Drivers – Economic

- Have to use economics to effect change. However economics alone is not sufficient to effect change
- Farm businesses – need adequate income for return on capital
- Lack of 'green investment' opportunities in New Zealand (triple bottom line)
- Productivity and sustainability mutually exclusive – must include business sustainability – triple bottom line
- Economic efficiency is often the sole driver of sustainability
- Economics – consumers want it cheap – farmers need to live
- Main driver on farm is economic sustainability
- Some sectors at present focused (still) on commodity mindset.

Drivers – Social

- Urban political pressures will drive final decision (e.g. sustainable logging on West Coast).

Incentives To Change

- Whatever is done has to be economic otherwise it won't happen
- Change cheap food perception by educating consumers to pay for higher cost food including its environmental cost
- Society attitudes are the drivers of our current model with demands for better food at a cheap price. When consumers are prepared to pay a premium for environmentally safe food then there will be 'pull through' for more change at the farm level. This would also be reflected in urban environmental behaviour re energy, waste management etc
- Change perceptions from commodities to quality products (high value)
- Need to cherry pick the most discerning markets

- Retain better control of value chain including supermarkets (farm profitability)
- The right message/incentives from (e.g. milk companies) to encourages good practice. Carrot not stick.

Markets
- Need to brand New Zealand food as sustainable and prove it
- Marketing created it. Marketing can solve it
- Product integrity (justification and differentiation) all important
- We need to demonstrate that we make safe and environmentally sound products.

Performance of Research on Delivering Needs
- How was Kruley of the 1960s lost? Need to learn from this
- Research on nitrogen – optimal application rates of water
- Communicate research better particularly the economic implications
- Research – needed: holistic/soil biology/clear benefits/processes
- Funding for research and education
- Science hasn't got all the answers: not science for science's stake/listening to nature. Investment in studying natural systems
- Research must be focused: all GRI and private working together co-operate
- New Zealand needs to invest more in research because we are one of the only world countries who rely largely on agriculture for our wealth
- Must have new technology available: GM etc
- Sustainability: what does this mean for farmers on the ground? (Need good science).

Understanding Redesign
- Need to understand whole system before suggesting solutions including systems research. Redesign is complex
- Urgent remodel needed to protect the environment. (Minority view of group that action was needed and current practices could not be allowed to continue. Remainder in the group considered that steady progress was needed)
- Joint modelling/practical programme important: need 'practical things for practical people'
- 80/20 rule – 80% already have good systems – and are sustainable. Redesign of whole system is too ambitious – be pragmatic
- Redesign – terrible word: redesign suggests – top down
- Start again: Should or could be evolution as – changes generally based on accurate knowledge – happening continuously already
- New path? No, more likely to be a gradual process (little new paths)
- In farming it can take a long time to make changes e.g. to improve plants, animals and soil. Need to break into many small changes and to start today
- How to manage water better: storage, use, quality
- There has to be incentives and supports to help farmers redesign their farms.

Education Models for Farmers
- Farmers need better access to information/education
- Information transfer needs to be proactive and farmer friendly
- There are lots of people processing lots of information – distribution of this information is important – so as people can make appropriate choices
- Education and hard data: farm consultants, farm discussion groups, expanded Landcare groups
- Funding for education.

Team New Zealand

Education and Communication

- Rural/urban awareness – linkages are vital
- 'Information exchange' needs to be properly done (producers ↔ others) Education of consumers – need to start this
- Positive side of farming – should be communicated to the urban population
- Improved education awareness of all rural issues is important
- Education and information for public and farmers, international too. Win-win solution – independent information/verification
- Improving communication will help a lot
- Education required: school/farmer/community/consumer. Some being done: more required
- Education: delivery and support and land users (education of producers and consumers)
- Need to educate consumers about sustainable/unsustainable products – links to cost of product.

Working Together

- The whole community has to be part of any changes to sustainable agriculture. Many of the key drivers of change are at the societal level e.g. land values and product processing
- 'Sexual' context: dislocation of 1980s/1990s needs to be corrected (?) – effects still significant
- 'Capacity building' in preference to (communities and catchments) 'regulation' e.g. Fraser Basin
- Managing change: catchment/natural
- All work together and understand each other: whole community.

Question of Strategy

- Need to set own levels and take the lead: decide our own future: BE PROACTIVE
- Need to be able to compete as a nation internationally
- What are our expectations? Whole community/strategically/income ± environment
- Disconnection between what farmers and consumers want: lack of signals in both directions
- Public good vs. private good: who benefits and who pays?
- Farmers can (if all farm costs are priced into food) survive on lower production but can the nation?

Leadership

- 'Top' needs to be involved and educated. Ministers, Parliament, central government
- Why aren't Federated Farmers taking a key role?
- More government assistance required if sustainable farming to be achieved
- Leadership with trust? Or get things in perspective. We don't always trust our 'leaders'. Not a separate body. Real concern about what constituted leadership in this area and that some people might put themselves forward as leaders without the right values and respecting the need for participation in this area. Our group felt that a separate body to pursue this was further bureaucracy and not appropriate. Let's use existing structures to really get some education and publicity going. Education: public, consumers, farmers. There needs to be an ongoing education programme to change behaviour
- Setting up non-government organisation to bring people together
- Carrot or stick approach (educate or regulations).

Other

- Rate of population growth will change what we call economic efficiency.

Canterbury Small Group Discussion Notes

This section lists all points of discussion recorded from the Canterbury workshop small group discussions. The questions used to prompt small group discussion are listed under each of the seven key themes.

The Importance of Farming to New Zealand's Wealth

The PCE talks about the risks of losing important overseas markets if issues like the environmental impact of farming become important to those markets.

1. How much risk do you think there really is? (high, medium, low)
2. What kinds of things do you think would make that risk higher?
3. How immediate do you think that risk is?
4. Do you think farmers and the farming industry have a good understanding of this risk and the impact it might have on their farm income?
5. What are some of the ways farmers and the farming industry can improve their understanding about the risk of losing important overseas markets?

How much risk do you think there really is? (high, medium, low).

- POV #1 Risks from markets: medium – UK, high – US, BSE. Med – Asia more important (they are less sensitive to environmental issues than Europe or North America)
- POV #2 Low Med High (attempt to get people to commit to the scale of the problem. In the end most said it was important and needed action)
- POV #3 Not as bad as many countries so risk is lower
- POV #4 Risk huge – but there is conflict between economic *and* sustainability
- POV #5 Different risk for high value vs. low priced products
- We need to be watching trends overseas. Need to be thinking about sets of standards to bring in future
- Border controls are an important means of managing risk from pests and diseases
- Risks are very difficult to manage because there are many of them all varying over time in different patterns
- Agriculture has some very different characteristics to industry general e.g. the ability to change is less, the activity is extensive use of land
- Public not prepared to accept environmental degradation.

What kinds of things do you think would make that risk higher?

- Contamination of groundwater by agriculture may take hundreds of years to reverse. Recharge of depleted aquifer could occur more quickly for most
- Non-point source discharges are difficult to manage/control
- If we continue to abuse our environment overseas tourists will take this home
- Examples of poor environmental management in the press
- Political – non tariff barriers
- There are a wide range of markets, some are discerning /high value – risk if we are ejected from high value markets, and NZ is forced to stay in commodity market
- Aware consumer will boycott markets

- Govt level – governments may use farming practices to cut out NZ practices: create market/trade barriers.

Do farmers and the farming industry have a good understanding of this risk and the impact it might have on their farm income?

- POV #1 90% of farmers understand and 40-50% are doing something about it
- POV #2 Most farmers aware of current risk but economic drivers will push farmers to move out of sustainable practices
- But red necks or rope sandals brigade get the publicity
- Very hard for an individual to identify all the risks and react to reduce them. Farmers tend to be busy with current issues whereas many risks are some time off into the future.

Moving Forward: Risk

- Need more stories in rural press
- We need to monitor trends in factory farming overseas and how that may affect our ability to dispose of animal effluent
- Important to involve powerful players: food industry/supermarkets/customer
- Marketing message: has to include sustainability: differentiate markets
- There has to be compatibility between message and actual practices to minimise risk
- There is a culture of quality standards for agricultural products. Similarly standards need to be developed for environmental sustainability of agriculture
- Understanding the customer's wants and needs is very important
- Can aim to produce premium quality products but the costs of doing that are much higher
- Education – is there one group who can pull this together – what are the messages – who targeted at?

Effects of Intensification on Natural Capital

Research in New Zealand and overseas has demonstrated that intensification of farming can lead to pollution of surface and ground water. Some farmers have responded by building bridges, fencing off waterways, and riparian planting.

1. Is this enough to fix the problem? If no – what more needs to happen?
2. Can farms in New Zealand survive with less synthetic fertiliser?
3. How does a farmer know that his/her farm is sustainable?
4. What kinds of information does a farmer need to know that his/her farm is sustainable or unsustainable?
5. Is this information readily available to farmers at the moment? Is this enough?
6. How well do we understand the impact of nitrogen on our natural capital?
7. How well do we understand the impact of irrigation on our natural capital?

General Comments

- Soil and water, air, climate, people, flora and fauna, insects etc
- We don't have a holistic picture of natural capital and our role in it
- Do we understand the effect of intensification on natural capital?
- Natural capital is a vague term
- What are you aiming for? Planning systems don't capture desired outcomes
- There has been a failure to achieve integrated management.

What kinds of information does a farmer need to know that his/her farm is sustainable or unsustainable?

- Farmers need solutions, need research and monitoring
- Information not readily available. It is there but how to find the information?
- Monitor farms – farmers very receptive to this approach
- But monitoring costs money
- Need to better understand potential impact of activities e.g. 40-50 year lag between land use and effect (at Taupo)
- Can't wait for perfect information – therefore precautionary
- Can fix things but demand for cheap food still there – answer is with consumers
- There are difficulties in understanding environmental impacts/measurements.

Water

- Water – doesn't blow away! i.e. under irrigation the previous problem of wind erosion is overcome. That is seen as a huge step forward by many dry land farmers
- Soil health and structure is difficult to manage (e.g. wet winter, dry summer)
- Irrigation is becoming more efficient
- Are there further acceptable sources of water? i.e. surface water, groundwater, impoundments? Is water in our rivers running to waste?
- How much pollution is being created?
- Dairy not the problem – there is plenty of advice
- We are heading in right direction to achieve good water quality
- Effects on waterways are less apparent to the farmer.

How well do we understand the impact of irrigation?

- Not well
- A lot to learn, price of water determines use.

Nitrogen

- N – grossly under-publicised
- Don't know if real cost is embodied in price of N fertiliser. No its not – as N outflow cost of reducing not included
- Time frames are long – N inputs from decade ago still moving through system
- Need to identify all sources of N in system
- No one is talking about 'stop using urea'
- Farming – in Canterbury – 90% of dairy farmers nutrient budgeting
- Tax on urea?
- Economics drive urea – where to from here?
- Rebates for nitrogen inhibitors?
- Catchment approach positive.

How well do we understand the impacts of intensification overall?

- POV #1 Intensive farming systems may be more sustainable because they are more efficient. Extensive hill country may be less sustainable because they are less efficient
- POV #2 Efficiency is not necessarily sustainable
- Efficiency – minimum input – maximum output, can degrade natural capital or sustain natural capital
- Have to assess cumulative effect of 'efficient' operation: may not be sustainable
- Redesign – don't know enough about what this means

- Need to bring in extensive systems as well.

Can farms in New Zealand survive with less synthetic fertiliser?
- Yes farmers can, but can consumers?
- But grass/clover sward can't produce as much because of clover root weevil
- NZ is breeding grasses that need artificial N
- It will result in lower production.

Moving Forward
- Nutrient budgeting
- Measuring and monitoring ground water
- Need controllable irrigation methods e.g. centre pivot instead of rotor rainers
- Put a price on tradable water rights
- More efficiency if water limited and more expensive
- Re-using water within one farm
- Waterways – have started fencing off – it is expensive – who pays? Benefit is to consumer and public so farmer shouldn't have to pay it all
- If we can get 90% of farmers to manage well will the environment tolerate the excesses of the last 10%?
- Water harvesting required.

Other
- The greater the intensity of production the greater the potential waste products that may contaminate the environment.

Understanding the Impact of Economic and Social Drivers

1. What are the key drivers behind the intensification of farming in New Zealand?
2. Do we have enough understanding of these drivers?
3. Are too many of our farming/food business models incompatible with long-term maintenance of our natural capital?
4. What are some of the ways these drivers can be addressed?
5. What will it take for farmers to become 'price makers', rather than 'price takers'?

What Are The Key Drivers Behind The Intensification Of Farming In New Zealand?

Economics
- Increased capital expenditure requires increased borrowing and an increased return to service it. This requires more intensive production
- Debt servicing – financial driver for the younger generation which manages debt better than previous generations
- Farm business: need income/profit (as other businesses) to get reasonable return of capital
- Lack of green investment opportunities in New Zealand: No triple bottom line
- Single bottom line ($$) – need triple
- Poor economic returns – hard to be 'green'
- Corporate/absentee farm owners: problem or opportunity?
- Lots of investment companies buying lots farms: they don't care – mainly interested in money
- Pendulum has swung too far to economic and now back to social

- All commodities decline in price in long-term – pressure on suppliers to increases efficiency
- High value market is prepared to pay for environmentally sound food. The rest are not and price is the principal determinant of sales. So an organisation like Fonterra will never have all of their output in the high value area
- Declining commodity prices. These place continued pressure for intensification of land use.
- High New Zealand dollar/input costs.

Land Values
- Driven by alternative use e.g. lifestyle blocks
- Tenure review is driving intensification on lower land. Set aside is putting pressure on to increase productivity e.g. DOC, government policy
- Farmers sell out to high prices if land is scarce resource – 2 incomes: production/land value increase
- Urban people are driving land use – want access to rural land.

Markets
- International buyers are cherry picking at the moment
- Products – specifications higher
- Prices – organics vs. commodity food
- Perception that products should be cheap at end market. Markets driving prices down
- Need 'responsible' labelling
- We can't regulate prices at the supermarket
- New Zealand production is high compared to local/domestic consumption: farmer markets may only apply to small part of market
- Who will pay extra for 'better' food?
- Too late to educate consumers?
- Farmers do not get paid enough compared to end price/market
- Exports from in NZ – non-level playing field
- Seasonal fluctuations in price and supply. 12-month year: premium quality – market place expects that. There are costs to this kind of supply: huge factor: consumers need to be educated.

Supply Organisations
- One standard milk price from producer organisations: no incentive to monitor inputs/outputs carefully to obtain a premium price
- Too much further production is offshore
- Dairy industry 'cooperative' demanding efficiencies e.g. bigger factory
- Marginal land production is subsidised e.g. cost of cartage of milk from new (unsustainable) areas (Twizel).

Costs of Production
- Farm costs are going up: compliance costs/rates/ACC.

Social/Political Drivers
- Everyone blames the farmer – not the fertiliser company
- Political influence: social driver: environment drivers from the urban population
- Following the leaders (track cutters)
- Improvements in equipment/technology/knowledge
- Sense of achievement (values driven)
- Regulation (positive and negative)

- Response to national direction
- Population density
- Expectations – wealth, environment
- Farmers enhance reputation through increasing production/profit. Increased productivity is a measure of farm success.

Food Industry
- Supermarket or end consumer who controls it? Consumers may want environmentally friendly food but the supermarkets are the gate keepers and manipulate consumer demand
- Supermarkets: Tesco set organic standards auditing farmers
- Undermining of connections – farmer/processor/market e.g. overseas buyers of processing.

Moving Forward: Economic
- Natural capital needs to be given an economic value and be built into accounting models
- Should there be a charge for water reflecting its economic value and a charge for polluting discharges?
- Financial outcome: Meat Company QA programmes
- Incentive: price premium for a product, rather than standard price
- Disincentive: not meet quality standard – downgraded
- Credit system – for changes in farmers' attitudes: will increase awareness/increase income. On the flipside farmers may buy credits but not change practice/attitude
- Regulation is inefficient: market mechanisms are more efficient
- Any solution has to be financially viable to farmers
- As a farmer you have to be able to afford a sustainable system
- Product sold at a price that embodies good environment practice.

Moving Forward: Markets
- A challenge to educate people when they don't perceive there is a problem: need to change behaviour – make the right thing to do easy
- Can fix things but demand for cheap food still there – answer is with consumers
- Trust the market: consumers supporting farmers markets and talking to the growers
- Need to lead the way in high value niche markets.

Moving Forward: Govt
- More flexible zoning: ½ acre instead of 10 acre for rural life style
- Need 'better' Govt involvement
- More community and personal responsibility e.g. production chain 'disconnected'.

Moving Forward: General
- Issues: 'passion' farmer vs. 'corporate'
- Existing work is 'all there': don't reinvent
- E.g. organics – tell the subsidy story – in Europe organic production was heavily subsidised, then once the food was produced they switched the subsidies to marketing in order to sell it
- Carrot vs. stick required.

Moving Forward: Issues with Verification and Auditing
- Food safety and standards useful
- Taxing bad operators to remedy environmental damage
- Is too late, damage is done

- Paperwork huge
- Don't believe get more $: farmers don't prescribe
- Keep it simple
- Can be labour intensive
- Put $ into education instead
- Overall scale should be focus
- Good data useful.

Constraints to Moving Forward
- Dairy – can it position to be 'value added'? – (Answer from one farmer in the industry – 'not in my lifetime')
- Environmental a cost? Will not do it if costs money
- Economic premium (this is essential for farmers)/sustainability but are consumers prepared to pay a premium? Big question!
- Fonterra: monopoly: can be seen as heavy handed by some members with regard to environmental standards if implemented too quickly. Producer organisations have their own internal tensions and politics, which can hamper progress.

Performance of Research on Delivering Needs

"Soil is one area where there are a number of issues which require better understanding if soils are to continue to have the capacity to support farming" *Growing for good* pg 184.

General Comment
- Elite soils going to urban development drives land prices up, rates too.

Research Areas
- SLURI: excellent idea
- Soils resilient, will bounce back if treated right, 80% doing well
- Researchers – need to work with bottom 20%
- Organic content of soils vital
- Soil biology knowledge of farmers limited
- Need independent advice on products
- Matching farming type to catchment?
- How it's done rather than type?
- Farmers need info to help decide how to manage
- Need to know why
- Need to link research and farm practice
- Compost/ waste industry – can rural sector use? Co-ordination
- Management of urban sewage – biosolids – land – research
- Mixed, do more cropping? Info
- Use research as marketing tool
- Future problem of finding markets
- Organic farming (Mike Brosnan)
    - Working with nature
    - Needs financial input into research.

Understanding Redesign

1. How necessary do you think it is to redesign New Zealand farms?
2. Do some farm types need to be redesigned more than others?
3. What kinds of things make it difficult to redesign a farming system?
4. What kinds of information or assistance would help farmers redesign their farms?
5. Is it necessary for the whole system (refer to diagram below) to be redesigned to achieve sustainable agriculture in New Zealand?
6. What changes are essential to achieve sustainable agriculture?

General Comments

- Redesign pretty ambitious, would require industry-wide approach
- If there are fundamental changes, some may lose out
- Do we need to re-design farming?
- Is there a need for a shift?
- Are we getting dirty water?
- Lots of people say 'you are not sustainable' but where are indicators? You tell me why this is not sustainable?
- Much is already happening: stream margins, bush/forest being fenced
- Lots happening, eco-n (nitrogen leaching prevention).

What Changes To Farming Are Needed?

- Efficient use of water inputs important
- Riparian management critical: intensification provides opportunity to do this
- Need to be more efficient in terms of use of inputs, e.g. water, nutrients
- Select plants suited to natural environment e.g. will require less fertiliser/water
- Redesign has to be whole production chain e.g. finishing systems and breeding systems: a lot of work to be done
- Role of trees? Should there be some discussion on role of trees in sustainable production?
- Restoration programme possibilities: green corridor – birds
- We may need more radical changes than on-farm e.g. price signals
- We face risks if we don't.

Constraints to Redesign

- Cost of sustainability hidden e.g. dairy
- Short term economic drivers
- Limit nitrogen = limit grass = limit production
- Cost of upgrading systems e.g. effluent discharges
- Compliance, paperwork
- Monitoring: inputs, outputs – 'farmers are farming intuitively'
- Information: majority not using all this information
- Farmers have a wide range of abilities.

Education Models for Farmers: Are They Leading To Change?

1. What kinds of farmer extension/education programmes are happening in your area?
2. What is the main purpose of these programmes? (e.g. increasing production, addressing sustainability issues, animal health)
3. What kinds of things are farmers changing as a result of these programmes?
4. What kinds of learning opportunities would help farmers to redesign their farms? (e.g. Monitor farms? Field days? Web sites?)
5. What kinds of things encourage farmers to adopt new ideas about sustainable farming practices that will not necessarily increase their income or save them money?

General Comments

- Don't blame farmers – need better education
- Environment awards – profiling good environment practice
- Farmers have a wide range of abilities
- Information: majority not using all this information
- Education telling us what we can't do – important part of process
    - more and more compliance issues
    - may need to be more strategic in our approach
    - doing things now because you may not be able to do them later
- The relative importance of maximising income or choosing a lifestyle varies greatly among farmers
- How did it happen that the knowledge of the 1960s wasn't applied? Now forgotten?
- Need continuity of knowledge, 'information exchange'
- Commercial knowledge transfer vs. impartial 'one on one' info transfer
- Commercial involved by 'invitation' can be withdrawn
- Good corporate citizens: Farmers want to be seen as good corporate citizens.

Current Extension or Education Models

- SI dairy event – successful
- Large herds – successful
- Quality info – relevant
- Lincoln focus farm
- Trust – who provides info?
- Thinking through all outcomes
- Riparian strips example
- Changing multiple objectives
- Private consultants – problems
- Silo interests
- Of urban people – vital.

Types Of Extension Models

- Monitor farms – production
- Farm discussion groups
- Lincoln Dairy Monitor Farm – big turnouts, key in mid SI – production + environment
- Landcare Groups – sustainability nitrate – weeds and pests
- Waihora Ellesmere Trust
- Living Streams (ECan) programme – surface water (not ground)
- ECan catchment working groups – water allocation issues; all community vs. negative approach

- Environment awards – awareness, demonstration, information; Best practice – both environmental and production
- Merino benchmarking project provides a good example
- Suppliers industry e.g. Fonterra
- Schools
- Resource consent process – surprises, this is often where farmers need and get a lot more information
- Polytech
- Young Farmers Clubs – human resource
- FITT Workshops/on farm research for farmers
- Fish & Game
- Biological Husbandry Unit: Lincoln.

Main Purpose of Programmes
- Efficiency
- Tech transfer
- Thriving farming community
- Productivity: higher returns from less inputs
- Sustainability
- Shared environmental awareness.

What kinds of things are farmers changing as a result of these programmes?
- Use of inputs: how/where/when
- On-farm and point issues/non-point
- Irrigation monitoring
- Sustainability: improving on-farm environment
- Farmers constantly change: uptake technology/cost.

Enabling Change
- Workshops like this (PCE) are very important
- Free exchange of ideas
- Web-based technology transfer: huge area but has its limitations. Many people would rather read articles. Most schools are linked to web – simple exercises needed
- Help everyone see where they sit in the puzzle. Real feeling that we needed to have the facts and put together the big picture for people
- Need to educate (positively) about real issues/solutions
- Understand the need for integrated environment management at a local level and right across the community
- Taking responsibility for actions and consequences – but how do we achieve this?
- The market can fix some problems but there are other relevant issues. Reputation
- Environmental sustainability needs to be unthreatening
- Leaving a legacy – driver for sustainability – long-term
- Need incentives before education
- Drivers – costs and rates of return
- Internalise costs
- A few rules can be helpful (e.g. Otago)
- Trading ‘N’ (Waikato)
- Closing the system loop requires understanding

- Link environment to price signals
- Farmers respond well to price signals
- Internalising and price signals: externalities/true cost
- Dairy farmer 80% environment neutral or positive, need to focus on the 20% that are not for whatever reason
- Increase profit
- Increase production
- 'Good' tidy farm. But some need more
- Good environmental outcomes
- Sustainable land practices
- Clear understanding of consequences of actions
- Change in mindset
- Self-start, not prescriptive regulation
- Extension models need to demonstrate downstream benefits. Otherwise why do you do it?
- Potential for lots of education programmes. Requires coordination, time, facilitators (paid)
- Environmental awards are a good way to encourage changes towards more sustainable agriculture
- Modelling – practical/'on the ground' – outcome
- 'Practical things for practical people'
- Learning models to help farmers redesign farms
- Peer-based, neighbours, farmers learn from other farmers
- Fertiliser companies
- Resource consents for effluent
- It's not good to mix negative (enforcement) with attempts to educate (e.g. don't have compliance officers also discussing other ideas of sustainability)
- Info source for dairy farmers – in groups
- Web
- 'Dairy Exporter' pub
- Lincoln Model Farm.

How To Encourage Changes In Farming Practices Not Related To Cost Saving Or Profit Making

- Nothing – it's a business
- OK if cost neutral/or minimal cost
- Business has to be sustainable
- Non farmers – 'feel good factor'
- There could be more incentive on energy
- Much potential saving via solar and head exchanges, adds value to farm and is sustainable
- Sustainable farming: can gain a lot of personal satisfaction from it.

Barriers to Change

- Understanding regional resource plans is costly for farmers e.g. a 300 page report is too much for a tired farmer after 12 hours manual labour.

Other Comments

- Does Federated Farmers promote/educate?
- Reactive
- Disappointed – less positive, proactive.

Moving Forward: Making the Transition from the Production to the Sustainability Era

- New Zealand is the only 'first world' country relying on agriculture

How important do you think it is to move from the production to the sustainability era?
- Extremely important
- Most farms (80%) are sustainable
- 10% – modest cost – could solve problems
- 10% – difficult and expensive to solve problems.

Are We Being Strategic Enough In Our Development Of Our Farming Systems – Pulling Together As 'Team NZ'?

Problems with Strategy
- Lack of 'alignment', but enthusiasm, passion there but no leadership
- Difficult message to take out politically
- Barriers – RMA – number of people involved
- Not enough cross-pollination between community at all
- Protecting vested interests
- We are heading in two directions
- Have we decided as a country whether we protect environment or promote agriculture?

Moving Forward: Suggestions for Strategy
- We need to stand up as a nation and say we are sustainable: A 'NZ Position' – move away from the rest of the world
- GE debate: could have been a good opportunity to position as 'GE free'
- New Zealand needs to be most efficient in the world and compete in the world by being ??
- Need a national net gain rather than sector improvements: can we actually get this on to the ground?
- Need to set standards around sustainability
- Rules and regulations? We need same bottom lines
- Need greater input from central govt: more support for regional councils, consistent standards across the country
- Farms respond to a shock → adapt systems.
- Need to show lead-in phase, everybody needs to know the ground
- Key performance indicators are needed to reverse decline of water quality – link sustainable management to indicators?
- Need branding for premium markets
- Environmentally aware – to grow business and market in New Zealand
- Marketing created the problem, marketing can solve the problem (could cost big money)
- Way forward: new technologies to protect environment
- Maybe need to clarify the issue: this requires some form of interaction across community collaboration. Use local level collaboration of existing industry and stakeholders to address these issues (use existing organisations).

Is there enough understanding of growing urban/rural tensions, re environmental expectations, in our politically urban dominated society?
- Differences in urban/rural perceptions – currently the two are miles apart

- The new generation has no concept of source of product. Many kids think milk comes from a bottle. This influences their view on rural issues
- Debate needs to be bigger than farming sustainability: it needs to include housing development and urban issues etc
- Web-site: important link for urban people to understand rural issues
- Lots happening in urban sense e.g. sustainable households
    - hardest thing is water
    - doesn't cover farming
    - people not making link between what farmers do and their lives
- City kids want to learn about sustainability not farming
- Sustainability is a fringe thing – need to be more mainstream
- Lots of people overeat: food coming out our ears
- There are a lot of mixed messages: milk comes from bottle/all you hear about is greedy farmers
- Need for equity across rural and urban communities: fair e.g. pay for water everywhere
- Consumers need to understand pressures they each pose: 'up-stream impacts'
- School education and activities.

Working Together

- Need to work at regional landscape e.g. Fraser Basin
- Central government – assist – with $$ and support, need 'teeth'
- 'Capacity building' rather than total 'regulation'
- Community will respond – if there are drivers – 'environment' too low on agenda of NZ
- 'Top' needs to be involved and educated
- How we manage agriculture affects the whole country
- Yes they need to get together
- All benefit
- Compromise
- Distrust – pegs get wider apart
- Middle ground can be obvious but neither party may go there
- All work together and understand each other/all need to sing off the same hymn sheet
- Needs to be more open communication with other groups e.g. not just within each sector
- Organisations need to work together.

Pan Sector Organisation

- Good thing: needs to be seen as a positive thing
- Unconvinced
- Good idea but not sure whether good for farmers
- Useful but would need to ensure that it doesn't become anti-farmer – in the long run you need to be realistic
- Agree with concept but how efficient is it going to be – we have had so many committees.

Other

- Loss of white clover from system: GM would fix clover root weevil problems
- The GM argument is hijacked by the environmentalists
- Attitude to GM in ten years will be completely different
- Dairy picked on because visual/emotional e.g. photo of cow in stream.

Feedback on Report

- Over emphasis on nitrogen in report: went away from this because not sustainable
- Lot of words without much understanding.

Comments from Canterbury Evaluation Sheets

This section lists regional-specific comments gathered through workshop evaluation sheets.

Positive

- Well done PCE team
- It's an excellent starting point – hope the concepts get carried through into the future
- Lots for thought
- A tragedy a meeting of this type with developed action plan did not occur 15-20 years ago. We are still delighted that these meetings are taking place now
- Future focused
- A further opportunity to achieve a win-win situation rather than an either/or
- Raised the urgency needed
- Better understanding of where some of the key players are coming from
- An excellent workshop. A great contribution to the discussion and to mapping the route to a sustainable farming future
- Useful, stimulating debate
- I hope the discussions about the way forward will continue beyond these workshops and reports. The report is timely and provocative. It is pleasing to see questions being asked of our current system. It is good to see some of the ? that have/are being made are recorded
- Well done on this effort and all the best for encouraging everyone to go forward with the next step.

Feedback on Process/Workshop

- Group dominated by one person and facilitator should have controlled more
- Ask people to turn off their cell phones
- We could not get points across in Group 14 as it was take over by one politician – facilitator needed to be stricter
- Our discussion group was dominated by one person, which affected the group dynamic/all contribution. Plenary session after morning tea more worthwhile
- 1 hour (less ¾ intro) is not nearly enough time to have a constructive discussion and debate about such an important issue.
- Mostly this was a positive coming together – it is not appropriate in such a forum for people with political/ideological barrow to push? Good facilitation by Landcare Trust person
- Need to be careful about attendee mix, not a lot of farmers in attendance. If these workshop become a ? for change here we been listening to a balanced stockholders group
- Hard to hear discussion
- 1) The questions we were given to discuss seemed directed to eliciting certain answers. 2) Which with saying some issues were 'dropped down' to specific focus and other issues need to be ? 3) The debate needs to ?
- Questions 2 & 3 are very leading questions for a survey
- Too short. Inclusion of SLURI interrupted flow of our subgroups discussion in what was already too little time.

Challenges

- I think we need to sort out how to address catchment issues. Easy if small catchment since few landowners. Much harder if large
- Unless consumers are prepared to pay extra for the price of their food, it is going to be difficult the level of change required at the farm gate
- This meeting showed that the government is not providing (?) finance for soil biology research (Bugs etc that take out contaminants in soils)
- Is NZ looking at the broader question of 'how sustainable' is relying on tangible products that need to be transported even more heavily while approaching peak oil supply? Are these concrete limits as to how many animals can be raised on a certain size farm and still be sustainable?
- Farmers can be in a system of commodity prices driving intensification. But to intensify production it is often necessary for them to incorporate major debt. Which in turn drives further intensification. Debt also. Means that a farmer may be unable to modify unsustainable practices even if they know it is unsustainable
- But it is a society consumptive issue as much a farming issue.

Moving Forward

- Farmers aren't afraid of change, but only if there is no financial cost and ? concession
- Raised debate but needs fundamental institutional. Very clear where to go next
- Do we need limits on stocking? We need some to manage, monitor limits. Regional councils need to step up (regulate) don't approve. Border immigration not effective. Education is the key, farmers need information on what they need to do. If everyone did sustainable practices maybe there wouldn't be a problem
- Very dangerous to interfere in the 'market' for food in order to clarify – or change – signals that growers/farmers receive. Redesign is not needed – just get better at what we are already doing: education, research, extension. Results of market working. Comparative market for cheap food. Good for consumers. Good from an export perspective. But there is a disconnect between what consumers want and what is happening. Signals are not getting through. Science is not getting through and we can change this through education. If we want to value 'so called true' value natural capital we have to accept lower income
- Please drop the word 'redesign', farmers won't buy into this, means completely different systems, means top down should be bottom up, means all agricultural production is faulty. Adopt something like 'evolution/building on what we know'
- Absolutely critical that concept of sustainable agriculture be given a much higher profile. Use exciting avenues to spread the word – profiling successful farmers i.e. Ballance awards
- There is a much wider impact than we think. Also a much wider buy in required i.e. produce to consumer
- Convinced me of the need for modelling to integrate systems indicators
- The answer to the problems must be a community (NZ wide) solution and contributed to by all NZers directly and indirectly, financially and other ways
- Farming is not only industry to target. The associated fertiliser companies etc are part of the picture and they persuade farmers to use their products. Also the marketing businesses pressure farmers to produce more. It is everyone's problem; we consume more and throw away more. Everyone needs to live sustainable
- I think the suggestion of having a non-governmental trust that will bring key people together of interested and diverse groups should be ??
- Need to get urban NZ in touch with sustainability
- Inspect for the earlier intellectual culture in NZ in whole farm systems research teaching and farm practice. In short it neglects our past understanding of the issue

- Many more please.
- Need sustained follow up and 'runs on the board'
- Report should be abbreviated to gain track with the wider community
- Not sure that the message was accepted by the farming retrospectives. You will have to continue to advocate/communicate this issue to government and wider community. Thanks for taking this issue on. Stick with it
- Needs to be practical and economically sustainable. Needs more research into effects; keep up the water monitoring and funding; regionally based not general information based on for regions
- Education is key to any change, not just at schools but in our community
- 1) The key to such workshops is what happens as a result of them. 2) Gelling the findings and presenting and advocating them to the appropriate body. 3) Obtaining, coordinating and focusing farmer support is also key
- Work on the remedy and mitigation, farm systems redesign, 'whole systems redesign'
- Need to keep up the momentum for change towards greater sustainability, not just talk about it
- Don't let it gather dust. Keep pushing the cause it's very much an evolution, not a revolution.

Feedback on Report

- It would be great to have *Growing for good* put some positive emphasis on farming and raise its profile in a positive manner as the urban population and mainly what they hear is negative
- Formal comments from organisations would be useful so that everyone can have their say. Should have focused more, not on history, but on what needs to happen to solve the issues of say nitrogen. Leadership and ownership is now required. This needs to happen now. Need to have forum for where a mix of viewpoints come together
- Not enough farmer representation. Big misconceptions i.e. farming practice
- It is my view that the document has failed to look at these industries which have had significant improvement ? of ? and locked to see what worked for example better the most and whole industry have been able to move formed outside of the ? agency
- Report has brought together much of the information surrounding sustainability but failed to adequately acknowledge that change has begun within the farming and primary industry sector
- The collection of overseas research information is important and should be done
- The report indicates to me that it had been written to show that NZ farming is non-sustainable and has based on ? and studies selected to show this. A ? review would be worthwhile
- Not always factual e.g. recent (1990s) research indicates nitrate doesn't cause blue baby syndrome
- Not the complete picture, reflects to a degree what is happening but personally I think we are well along the way to resolving issues though increased industry awareness regulations etc.

Other

- Not provided a clear direction ahead
- Contracts for future research use.