Pathways to a more resilient kiwifruit industry:

What has ARGOS told us so far?

A conversation please between your industry and the whole research team!

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Review of Drivers and Responses

1. Business management and resource use efficiency
2. Market drivers
3. Regulatory drivers

Business Management and Resource Use Efficiency

- Insights into strategies for resource use optimisation – based on economics, energy
  - Opportunity for improved fertiliser management?
- Insights into potential ecosystem services – potential economic contribution to production and alternative income – eg bird bio control, earthworms for Carbon storage

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Market Drivers

- Monitoring data eg soils, energy, biodiversity useful to address any concerns regarding kiwifruit performance and impact.
- Potential value as competitive points of difference.
- Identify areas for possible improvement

Regulatory Drivers

- Kiwifruit production - impact on the wider environment
  - Weeds into gullies
  - Supporting bird populations

Pathways for Industry Adoption

- Understanding of level of kiwifruit growers support for environment and specific environmental issues eg birds
- Understanding of indicators valued by growers including environmental
- Segmented growers by their orientation to and attitude to environmental management
- Identified possible non-financial approaches to encourage adoption of environmental best practice

Conclusions: you have a resilient industry!

- Zespri & pack houses are actively building resilience and controlling what they can control!
  - Single desk, but diversity/competition from packhouses
  - Sense of collective purpose and membership
  - Leadership
  - Confidence
  - Fast, far-reaching information and marketing networks
  - Monitoring and research capacity
  - Active facilitators and innovators
  - Trust of the growers, public and politicians?

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Conclusions

- Comparitively Kiwifruit industry has a good environmental report card
- Multiple drivers for improved performance – they will intensify
- Recognise the diversity of grower performance, motivations and attitudes
- Multiple pathways to achieve industry sustainability
- Some excellent exisiting operations – opportuties to learn from these

Recommendations

1. Industry strategic focus
2. Monitoring
3. Risk management and preperation
4. Organics a key opportunity
5. Future research priorities

Broaden Industry Strategic Focus

- Narrow focus just on production - a key blocker to change?
- Shift to focus on profit focus rather than production alone
- Resilience model to guide industry focus on sustainability

Industry monitoring priorities

- Scale-up (beyond ARGOS?) long-term monitoring of selected effective and affordable indicators
  - Soil Quality; Earthworms; Birds using DISTANCE sampling methodology; Small insectivorous birds (fantail as ‘flagship’ and ‘indicator’)
- Social, economic, management indicators

Organics – a key opportunity

- Improved biodiversity and environmental orientation –natural and social capital
- Fainter environmental footprint on the land
- Less reliance on ecological subsidies eg. fertilisers
- Less reliance on agri-chemicals eg. Hicane
- C sequestration

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Organics – a key opportunity

- Local eco-citizens unite!
- Emergence of an indigenous ‘land ethic’
- Local and national support
- Local markets are more important than their market share

Organics – a key opportunity

- No evidence of financial penalty
- Could be much enhanced by active facilitation of added environmental care under the organics banner
- Innovation, risk takers and higher adaptive capacity at the individual orchard and at the wider industry level

Organics – a key opportunity

- KF the darling sector for organics nationally
- But still only ca. 5% of the KF orchards are organics
- Industry level resilience increased by encouraging more into organics
  - How can this be done? Improved premium? Conversion assistance? Industry strategy statement?

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Escalating battle for the hearts and wallets of the consumers

- Let’s get to 10% organic by 2025???
- Strengthen KiwiGreen non-organic production streams
- Score off and support each other
  - Premium benchmarked off the IM base
  - “Clean Green” and NZ Inc.
  - The single desk

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Future Research:ARGOS 2

- Accent on shocks and drivers as seen by the orchardists
- Resilience, adaptation, transition
- Exploiting best practice within panels rather than constantly comparing the panels
- Consolidating data streams

Research for risk management and adaptation

- Elimination of Hicane
- Peak oil and energy costs
- Loss of the single desk?
- Continuity of inexpensive ecological subsidies
  - Minimisation of fertiliser input
  - Addition of fertiliser protocols to KiwiGreen

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Future Research priorities

- Modelling to get smarter
- Quantifying ecosystem services
- Focus on increasing concerns
  - Energy
  - Carbon
  - Water
  - Climate change
  - Waste!

Improved efficiency and reduced reliance on ‘ecological subsidies’

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