Do orchardists walk the talk?

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The plan

• Bringing together findings from across ARGOS to explore orchardist’s orientations.
• The data.
• What’s been done with it and what happened then.
• Some thoughts on what it might mean.
ARGOS

- To date – study of comparisons between management/audit systems
- Last year – started to look at linking the social data to the data from the other objectives via farmer/orchardist orientations
- Orientation – propensity to focus on a particular outcome or lean towards a certain attitude
- For example:
  - Productivity
  - Tidiness
  - Environmental and social breadth of view
Unthinkable and thinkable practices?

• What are unthinkable practices for orchardists?
• Leads to study of ‘good’ orchards/orchardists
• Linking orientations to practices – is there an ‘on-orchard’ consequence of particular orientations?
Data sources

• Attitudes from surveys

• Outcomes of farm practices
  – Financial data and calculations (Glen)
  – Environmental data – soils (Peter), bird counts and water measurements etc. (Grant and others), cicadas etc. (Jayson)
  – Orchard management data – production etc. (Jayson)

• Interviews
Data sources – farmers/horticulturalists in general

- 2008 sector survey of attitudes and opinions – sheep/beef, horticulture, dairy, BioGro, AssureQuality
- Asked for:
  - importance of indicators of financial, production, environmental and social performance of farm/orchard,
  - approach to management
  - farming factors
  - emissions trading
  - bird diversity and farm management
  - benefits of trees and shrubs.
- 120+ variables
Data sources – ARGOS orchardists – outcomes of practices

• 5 years of financial data from accounts

• Soil measurements (3), bird counts

• Orchard management

• 50 variables for kiwifruit

• Demographics – age, family, education
Methods: drawing up measures of orientation

• Categories from interviews and observations
or
• Indices from questionnaire responses – either taking averages or from factor analysis – then using cluster analysis to form groups of the like-minded
then
• Analysis of the other attitude questions to draw up pictures of attitudes of people in these groups/categories
Methods: associating orientation with outcomes on the orchard

Analysis corrected the data for:

• orchard location
• management system (gold, green, mixed, organic green).
• girdling practices – for 2008 production data only

Also accounted for:

• effective orchard area (because there could be efficiencies due to size even though analysis is per ha).
Breadth of View (BoV)

Observation during interviews.

- Differing awareness of how widely orchard impacts on social wellbeing –
  family → local community → nation → world - Social BoV

- Awareness of how far afield orchard practices impact on environment –
  within farm → locally → regionally → nationally → globally
  – Environmental BoV
BoV Results

- Broader Social BoV (self assessed) – lower soil measures (AMN & Soil C), fewer birds, produced more
- Broader Social BoV (our measure) – spent less (on some things), produced least, higher financial returns (COS/ha), older vines (and older people), could name more birds but didn’t have more
- Environmental BoV (self assessed) – very few differences
- Broadest Environmental BoV (our measure) – spent more (fertiliser, vehicles and fuel, OWE, communication/ha)
Tidiness orientation

• Underestimated, normative?
• Few consequences but important?
• For those with greatest emphasis on tidiness: OWE and Pollination costs higher. Soil AMN lower.
Production focus

Normative – as expected?

Kiwifruit

• Low production focus produced higher DM fruit (more stressed plants?).
• High production focused orchardists who strived to be good citizens produced more.
• High production orchardists who were most focused produced the most but also spent the most. Highest AMN and soil C.
• High production orchardists who focused on tidiness, produced less, spent more on pollination.
Orchard type

- Wild/tidy orchard – smallest fruit, more cicadas, fewer spiders
- Challenging orchard – fewer mites on leaves, higher soil AMN, more earthworms
- Needy orchard – more spent on fertiliser
- Passive – biggest fruit, higher Olsen P.
Discussion/interpretation

- Social breadth of view (as assessed by us) could have implications for sustainability.
- Some orchardists have a broad environmental consciousness but the consequences of this do not show up in our data so far.
- Spend more to produce more but do not make more $s.
- Focusing on production does mean producing more but it does not mean better quality fruit.
- Focusing on tidiness may have a cost.
- Making meaning could have social, environmental and economic consequences.
- Attitude counts sometimes?