



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?

