



agri-nutrients
Ballance

Together,
Creating the Best
Soil and Feed on Earth



PC1 submission support material

10th April, 2019

Primary Growth Partnership

Between Ballance and MPI

- 7 year Research Programme
- ~\$19.5 million
- Focus Nutrient Management

Key outputs include:



Ministry for Primary Industries
Manatū Ahu Matua



Nutrient Mgmt workshops

Agreed messages / Posters / Workbook
Collaborative / Farmers co-present
To Date
33 Nutrient workshops
Over 580 attendees



UNDERSTANDING FARM NITROGEN REPORTS

JOIN US TO LEARN HOW TO RECORD, INTERPRET AND ACT ON YOUR FARM NITROGEN REPORT EFFECTIVELY.

The information in your farm nitrogen report (produced annually by your dairy company) reflects what's happening on your farm and indicates where changes could result in improvements.

Presented by Ballance experts, this workshop is designed to give you practical guidance for managing nitrogen on your farm. It will cover:

- 1 The numbers – finding the data you need and interpreting the results you get
- 2 Taking control – the five factors of nitrogen loss and how you can influence them
- 3 Top tips – practical ideas for improvement

Join us and receive your own resource workbook, where you can record your nitrogen management goals.

Questions are welcome – at lunchtime you'll have the opportunity to talk with a Waikato Regional Council representative about the proposed Healthy Rivers plan. The Ballance speakers and Fonterra Nitrogen Management team members will also be available for a chat.

REGISTER NOW 0800 656 568

This is a FREE event, with morning tea and light lunch provided



SPEAKERS

Ian Power, Josh Verhoek, Ian Tarbotton

6
APRIL

TE KAUWHATA

Te Kauwhata Rugby Sports Club
Te Kauwhata Domain

7
APRIL

CAMBRIDGE

Avantidrome
15 Hanlin Road, Cambridge

10
APRIL

MORRINSVILLE

Top Pub
2618 State Highway 26, Morrinsville

12
APRIL

REPOROA

The Woolshed Tavern
3820 Broadlands Road, Reporoa

TIME

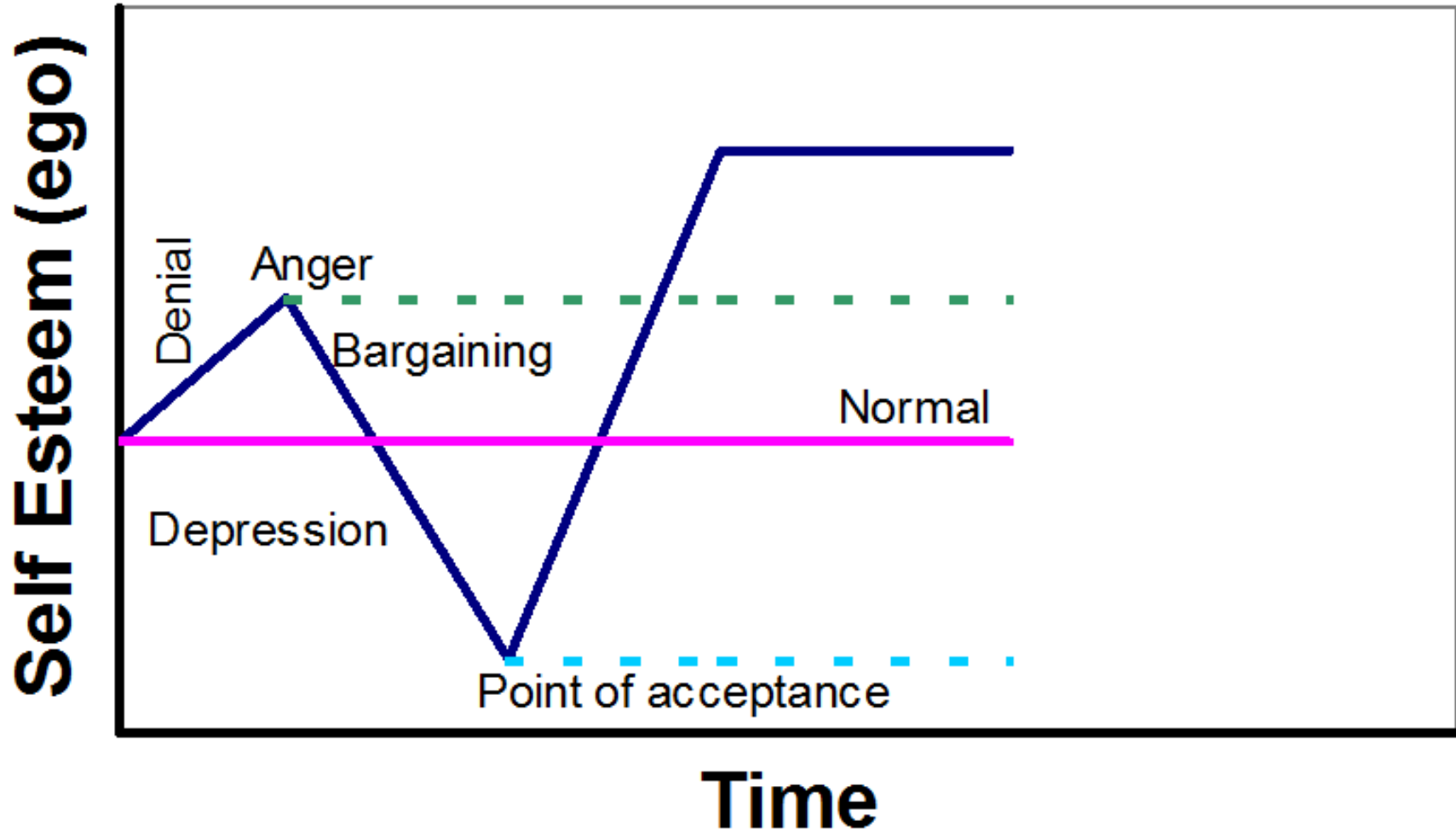
- 9:45 am Registration
- 10:00 am Start
- 1:00 pm Workshop concludes/lunch
- 1:00 pm Optional one-on-one session and/or discussion with regional council representative
- 2:00 pm Finish

Practical ways to reduce nitrate leaching

Category	WHAT'S ITS IMPACT?				CAN YOU INFLUENCE IT?
	LOW	LOW-MODERATE	MODERATE	MODERATE-HIGH	
DRAINAGE				Soil type, properties, slope	✗
				Rainfall	✗
				Irrigation	✓
ANIMALS				Stocking rate	✓
				Animal species	✓
EFFLUENT				Wintering cows off farm	✓
				Effluent management	✓
FERTILISER				Effluent nitrogen	✓
				Fertiliser nitrogen	✓
FEED				Amount of supplement imported	✓
				Type of supplement imported	✓



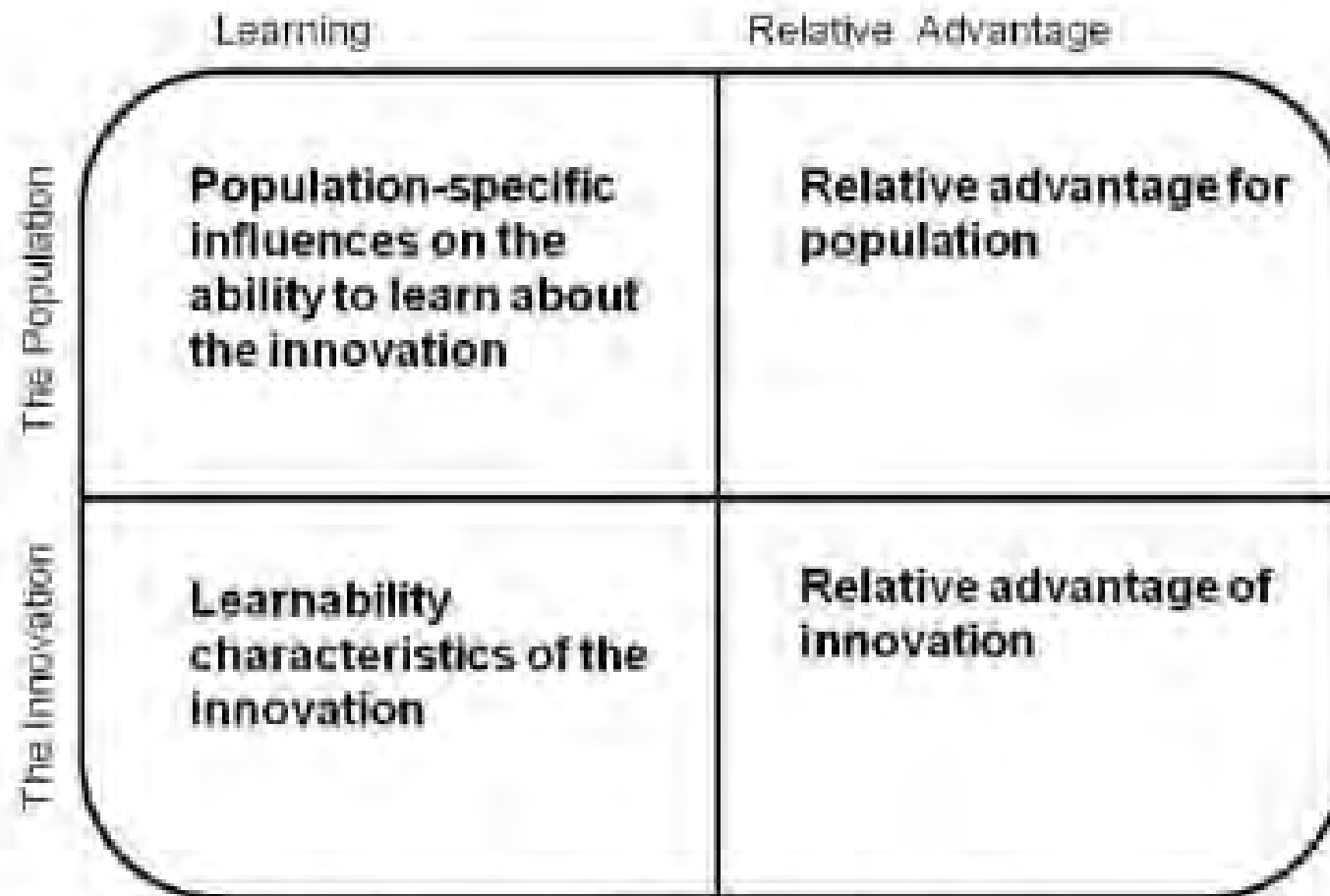
Kubler-Ross – “Grief cycle”



ADKAR change model



ADOPT – model to predict innovation adoption



The four quadrants of the ADOPT model

Relative Advantage for the Population

- 1 Profit Orientation
- 2 Environmental Orientation
- 3 Risk Orientation
- 4 Enterprise Scale
- 5 Management Horizon
- 6 Short Term Constraints

Learnability Characteristics of the Innovation

- 7 Trialable
- 8 Innovation Complexity
- 9 Observability

Relative Advantage of the Innovation

- 14 Relative Upfront Cost of Innovation
- 15 Reversibility of Innovation
- 16 Profit Benefit in Years that it is Used
- 17 Future Profit Benefit
- 18 Time Until any Future Profit Benefits are Likely to be Realised
- 19 Environmental Costs & Benefits
- 20 Time to Environmental Benefit
- 21 Risk Exposure
- 22 Ease and Convenience

Learnability of Population

- 10 Advisory Support
- 11 Group Involvement
- 12 Relevant Existing Skills & Knowledge
- 13 Innovation Awareness

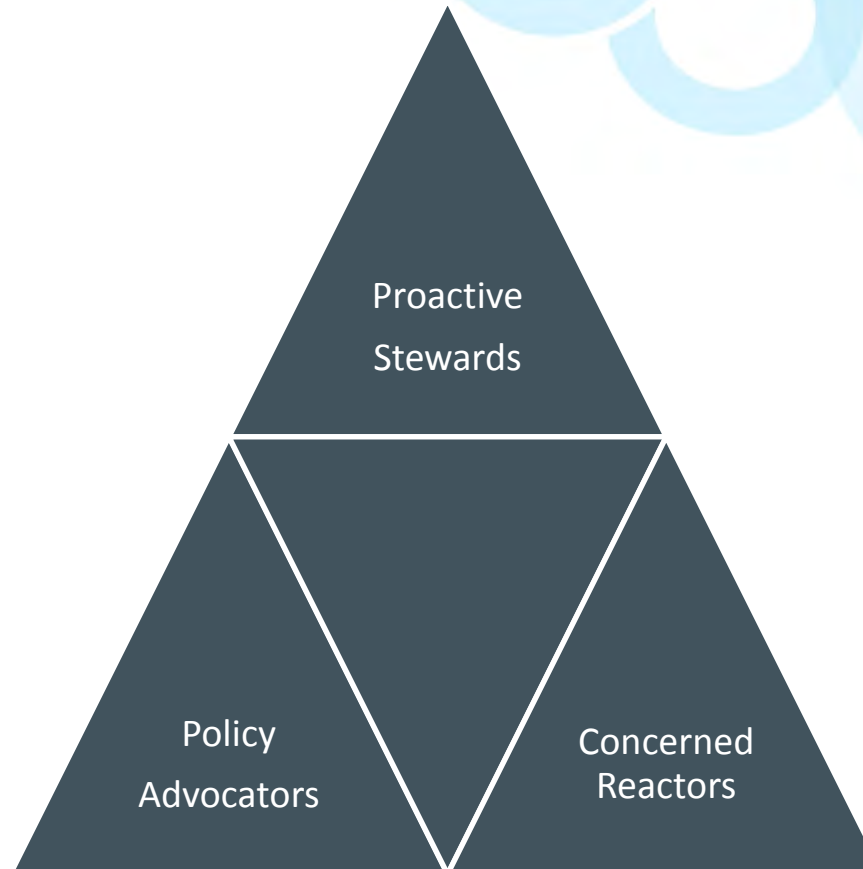
Group Development Stages - Tuckman



Southland Catchment Research

- Semi-structured questionnaire developed
- 26 interviews completed of Catchment Group Leaders (farmers), Industry Orgns, Regional Council Reps
- Interviews were completed by a local consultant who had involvement in one Catchment Group
- The interviewer was already widely known and respected

The three Catchment Group types from our research



Critical Success Factors expanded

- Networks to experts & RCs
- Energy to motivate
- Teamwork from a core group
- Workshops facilitated
- Objectives defined and agreed
- Reliability to get stuff done
- Knowledge growth
- Sharing actively between meeting

Successful Catchment Groups

Must be

- Dynamic “Networks”

Two of the groups had formal mission statements:

To raise awareness and protect the future of farming, water quality and community. To preserve and enhance water quality in the catchment. To focus on the unique environment in our catchment

We have a desire to maintain/improve water quality in our catchment. We will operate a proactive, collaborative approach to achieve economically and environmentally sustainable farming in our catchment

You will benefit from accessing great “Facilitation skills”

- A facilitator is a guide to help people move through a process together

Facilitation focuses on:

- *how* people participate in the process of learning or planning
not just on
- *what* gets achieved

Top Tips

1. Be inclusive but farmer lead
2. Invite, invite, invite
3. Tap into well established Catchment Groups / Catchment Group Leaders
(Southland is a wonderful source of these)
4. View and celebrate wins
5. Do not make unrealistic promises
6. Accept change takes time
7. Do yourself out of a job – role succession
8. Be open to “novel solutions” eg leasing land for a Catchment wetland

Catchment Leader – “Change” Workshop



Digital Delivery – a way to leverage impact

- Webinars
 - Completed first one with Ian Power on N Loss and Mgmt
 - 65 Ballance Nutrient Specialist (either via laptop or phone)
 - Farmer webinar being finalised
 - Aim to produce these quarterly

- E Learning modules (part of Foundation Training)
 - Enable self directed learning

- Video clips
 - internal (case studies with marketing) and
 - external (Rotorua Lakes work)

- Podcasts
 - Audio only suited to listen to when driving
 - 22 completed mainly quite seasonal

Collaborative video series

The screenshot shows a web browser with several tabs open, including 'Yammer : Ollie Knowles', 'wayne allen farm consultant n...', 'Auckland City » NZ Young Far...', and 'Lake Rotorua Primary Prod...'. The website header features the title 'LAKE ROTORUA Primary Producers Collective' and the tagline 'Sustainable Agriculture'. A search bar is located in the top right corner. The navigation menu includes links for Home, About us, Our partners, Our stories, News, GMP Videos, Events, Nutrient rules, Resources, Join us, and Contact.

HOME / USING NITROGEN EFFICIENTLY WITH STUART MORRISON

Using Nitrogen Efficiently with Stuart Morrison

Stuart and Heather Morrison have been dairy farming in Rotorua for almost 35 years. In this video Stuart talks about how he optimises nitrogen efficiency to maintain profit and reduce nitrogen losses to groundwater.

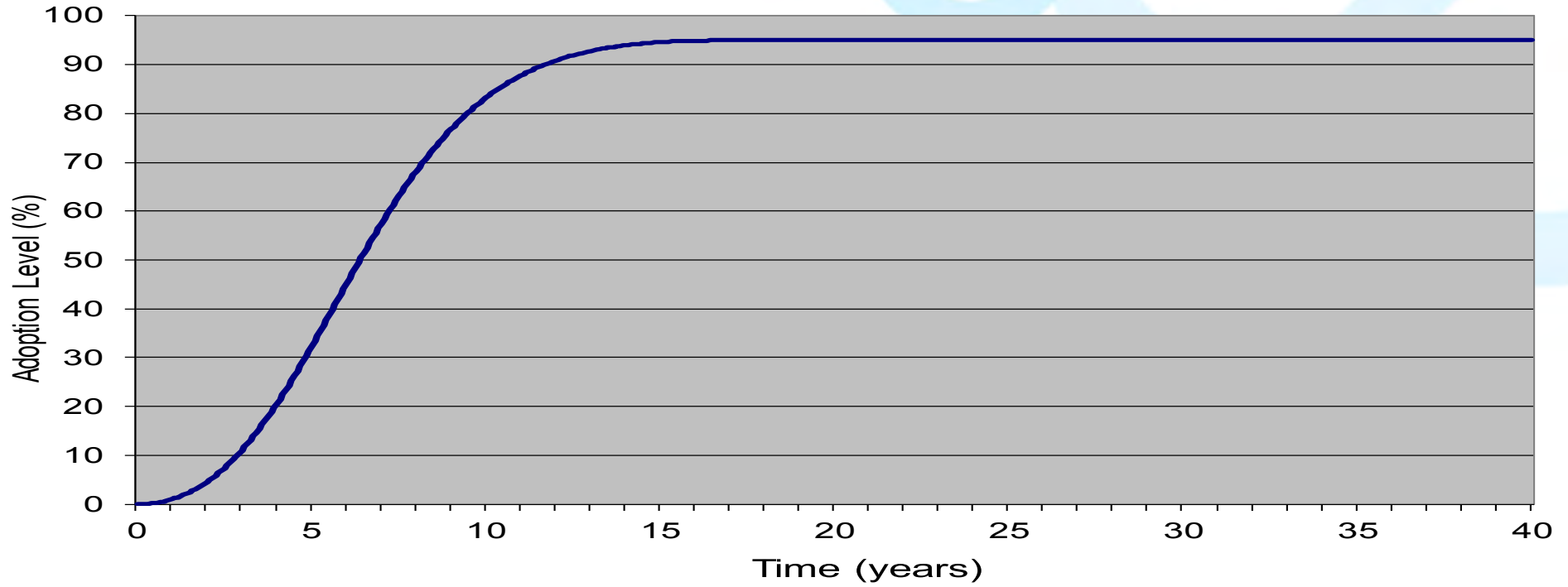
Below the video thumbnail are social sharing buttons for Facebook (Share), Twitter (Tweet), and Email (Forward).

WATCH MORE VIDEOS IN THIS SERIES
Click on the images below



ADOPT curve – fast example

Adoption Level S-Curve





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Thank you