

# Implementation of the Organic dairy Dashboard



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## Which indicators can we use?

Detailed analysis and comparison of overseas dairy sustainability frameworks in order to find relevant indicators of this sector

**SAI:** Sustainable Agriculture Initiative and the Dairy Sustainability Framework

**MOTIFS:** Monitoring Tool for Integrated Farm Sustainability

**TSC:** The Sustainability Consortium

**PG:** Public Goods

**RISE:** Response Inducing Sustainability Assessment



### Getting people involved



- ✓ Sign-off from the ODPG executive
- ✓ Invitation sent to all organic farmers

### Get information out

- ✓ BioGro's e-news in August
- ✓ OANZ's e-news
- ✓ Asking OrganicNZ magazine

## Introduction

The organic dashboard's main purpose is the sustainability assessment and monitoring of organic production systems. It will provide farmers with added value tools for their day to day farm management, and with pathways to lower impact farming while maintaining or even increasing profitability. The dashboard will also improve information flows to farmers, regulators and the market and will provide a user friendly and innovative way to demonstrate the actual sustainability outcomes of organic agriculture.



## Organic dairy sector in New Zealand

- Organic milk production = 0.3% of Fonterra's milk volume
- 73 organic dairy suppliers (40% drop in the last 5 years)

### Organic dairy exports

- The second largest export category of NZ Organic products : 17%
- The value category of exports has grown 33% since 2009

**Markets?** South-East Asia, China and the US

**Product?** Milk powders

### Milk powder at market



Organic up to 2.5 times the price of non-organic

### Fonterra backs organic milk again

- Renew contracts
- New brand : Anchor Organic



### Farm gate prices

Increase the organic premium on top of standard pay-out : Add 45c taking it to \$1.50 kg milk solids (MS) from 6/1/15

## Organic milk: Clean, green and profitable?

### Comparison of organic and conventional dairy farming systems



- Production : Quality & Quantity
- Financial performance
- Soil properties : physical & biological condition

### Key facts

	Conventional	Organic
Production kgMS/ha/yr	Higher production 999	Lower production 594
kgMS/cow/yr	359	323
Animal health cost \$/yr	26,000	2500
Profitability	Similar	

→ Per cow basis, the gap is smaller

Potential for emitting GHG is half that of non-organic farms



Only 50 to 60% of the quantity of N that is lost from conventional farms



## Which sustainability measures to focus on?

### Method

#### 1. Contextualization

Spatial scale : Farm

End users: Organic farmers

To begin the project: focus on the environmental dimension

#### 2. Understand the environmental Impacts of dairy farming

- Eutrophication potential
- Acidification potential
- Global Warming potential
- Use of energy and land

#### 3. Identification of the main issues in New Zealand

#### → The impact of nutrients on water quality

Caps on the amount of both nitrogen and phosphorus that can be leached are implemented : opportunities for organic production systems to provide pathways to lower impact farming while maintaining profitability

## Next steps

- Workshops with organic dairy farmers are being organised
  - To explain the project in more details
  - To discuss which of the key sustainability areas the end users wish to focus on

### Comparison and evaluation of indicators

Relevance and practicability

Means-based indicators VS Effect-based indicators

### Classification of environmental indicators

#### Input management

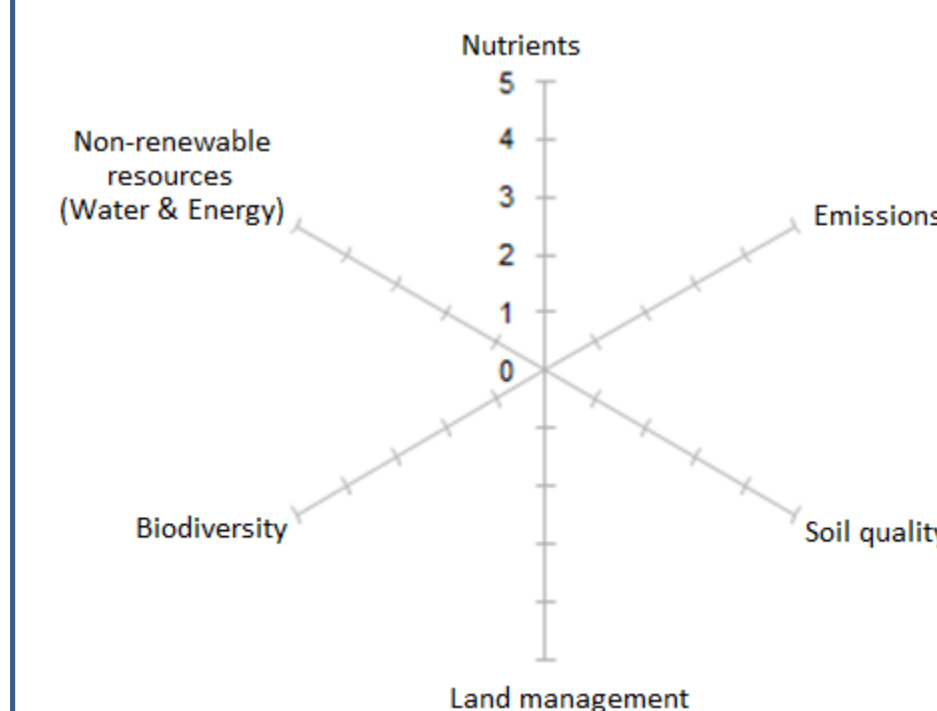
- Nutrients
- Non-renewable resources
- Land management

#### Quality of natural resources

- Biodiversity
- Emission of greenhouse gases and acidifying substances
- Biological, physical and chemical soil quality

### Online interactive assessment tool

→ To develop a pilot dashboard and to conduct initial trials



CRITERIA	Nutrients	Land management
Measures	Nitrogen Surplus kg N/Ha of UAA	% of bare ground/UAA % of monoculture
Value		
0		0
1	80 to 100	1
2	60 to 80	2
3	40 to 60	3
4	20 to 40	4
5	< 20	5