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Lifting the veil on voluntary management standards

What is underneath? A case of dairy farming in
Canterbury, New Zealand

EIANZ conference 2014

Shannon Coghlan (M. Na.R.M.E&E)

Michaela Balzarova, Wendy McWilliam & Rainer Haas

A photograph of a herd of cows in a grassy field. The cows are of various colors, including black, white, and brown. The image is semi-transparent, allowing text to be overlaid. The text is in a clean, sans-serif font. The word 'Background' is in green, while the rest of the text is in black. The background shows a line of trees in the distance under a bright sky.

Background

- Image of dairy farming and the environment
- Media attention
 - Water quality
- Pressure on farmers

- So what is being done?



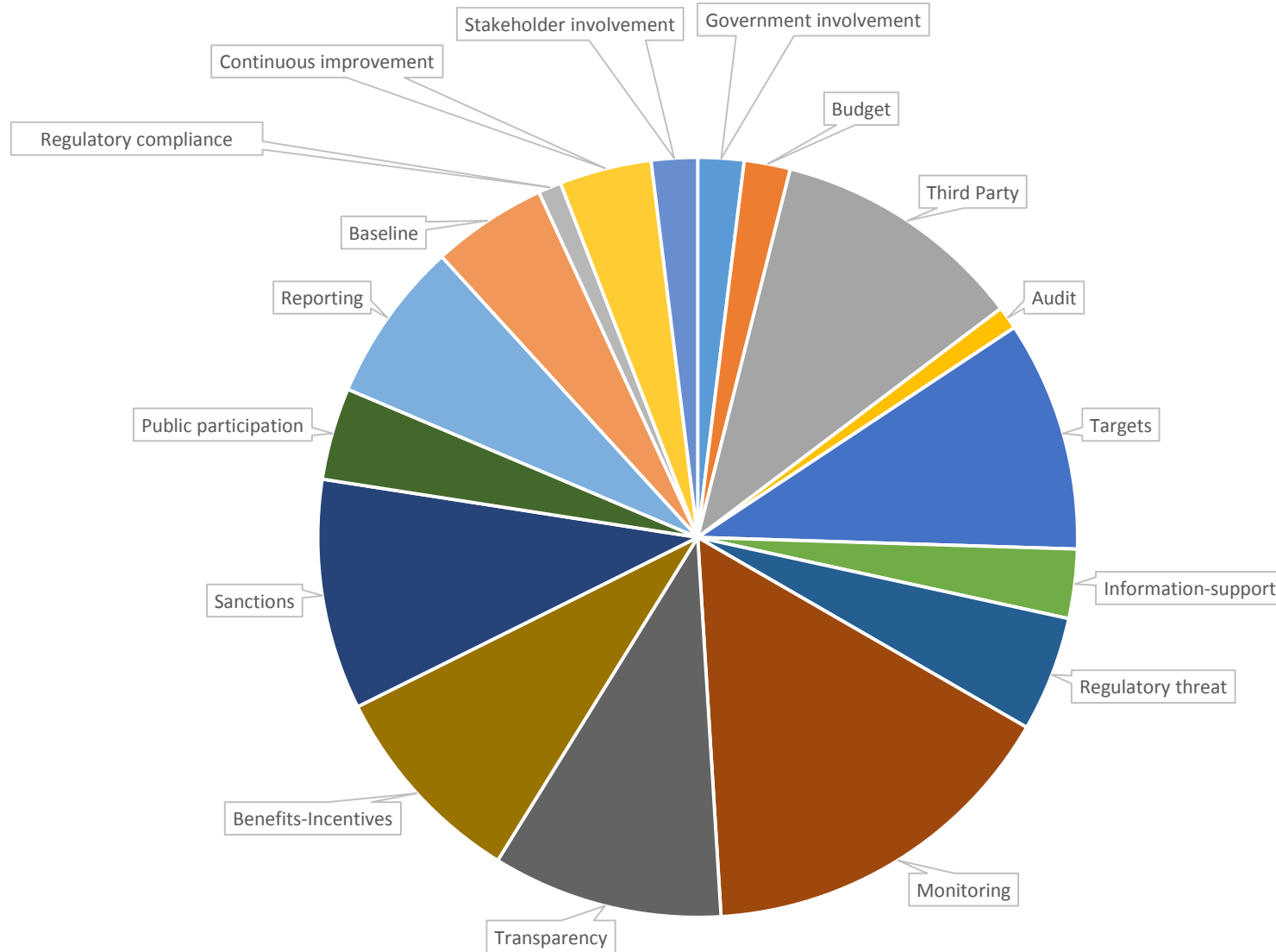
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Voluntary Approaches

- Shift away from traditional command-control
- Through the use of voluntary schemes
- Advantages
 - Cheaper
 - More effective
 - Provide benefits to producers
 - Increase innovation
- Design attributes or characteristics



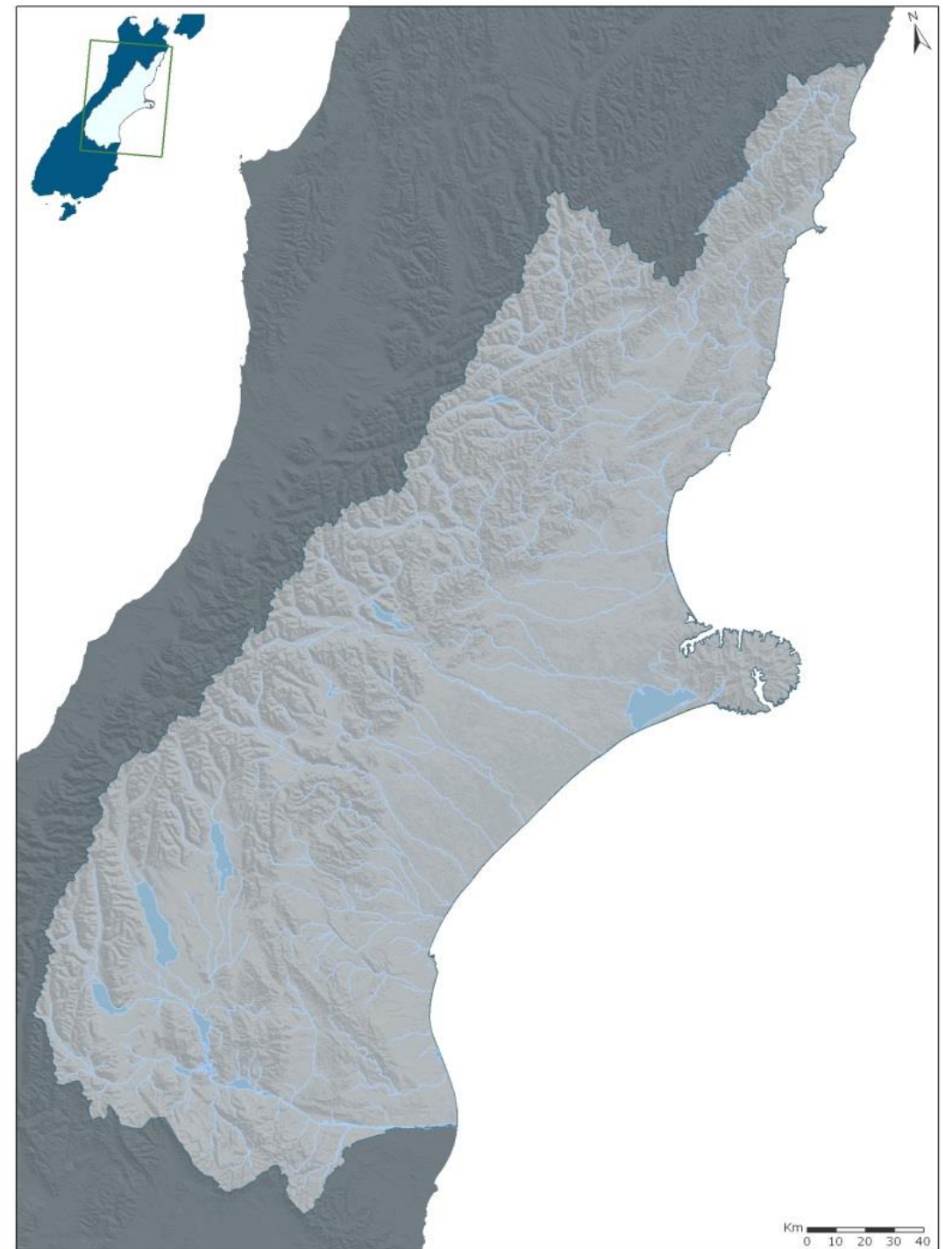
Literature Review Findings





Study Area

- Canterbury Region, New Zealand
- Reasons
 - Accessible to researcher
 - Dairy intensive region
 - Faces environmental issues



Voluntary Approaches in the Dairy Industry



- Rapid increase of environmental voluntary schemes (MfE, 2003)
- Shift away from command-control approach
 - Voluntary agreements
 - Voluntary initiatives
 - Supply contracts
- Clean Streams Accord 2003
 - Scientific evidence
 - Public concern
 - 'Clean green' image

(Blackett & Le Heron, 2008)





LEAF - Linking Environment And Farming



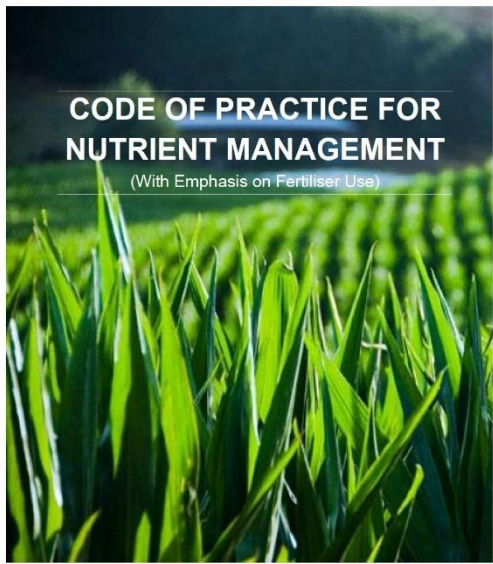
LEAF Marque Global Standard 2008

The LEAF Marque scheme aims to give consumers confidence in the care farmers take to produce food and other products. It confirms that the product has been produced in an environmentally responsible way

LEAF Marque farmers care for the future of
Our Environment
Our Wildlife
Our Countryside

www.leafmarque.com

LEAFmarquestandard2008final.doc Page 1 ©LEAF Marque Standard 2007 12/10/08



CODE OF PRACTICE FOR NUTRIENT MANAGEMENT

(With Emphasis on Fertiliser Use)



© Fertiliser Association 2013 ISBN 978-0-473-28349-2

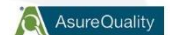


SUPPLIERS' HANDBOOK 2013/2014

THE SUPPLIER'S HANDBOOK CONTAINS THE TERMS AND CONDITIONS OF SUPPLY APPLYING FROM 1 JUNE 2013.



265



AsureQuality Organic Standard For Primary Producers



Version 5 January 2013



bio gro Organic Standards

Module 1 Introduction

04 MAY 2009



I LEAD WITH PRIDE

CERTIFIED BEST PRACTICE DAIRY FARMING



ENVIRONMENTAL

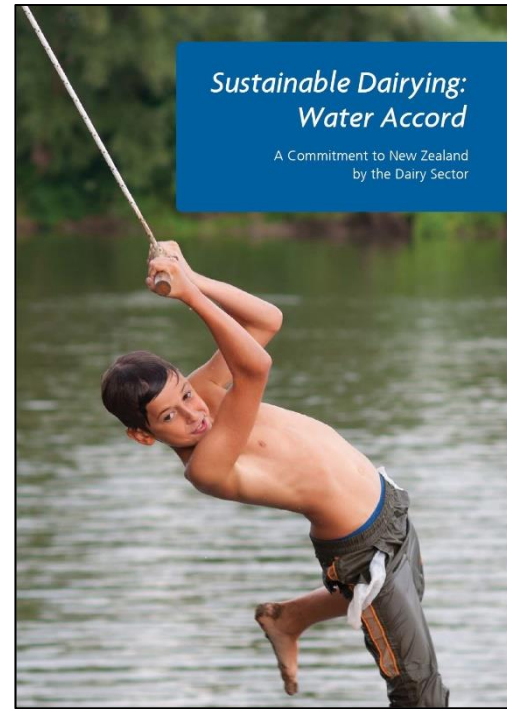
Code of Practice

2011

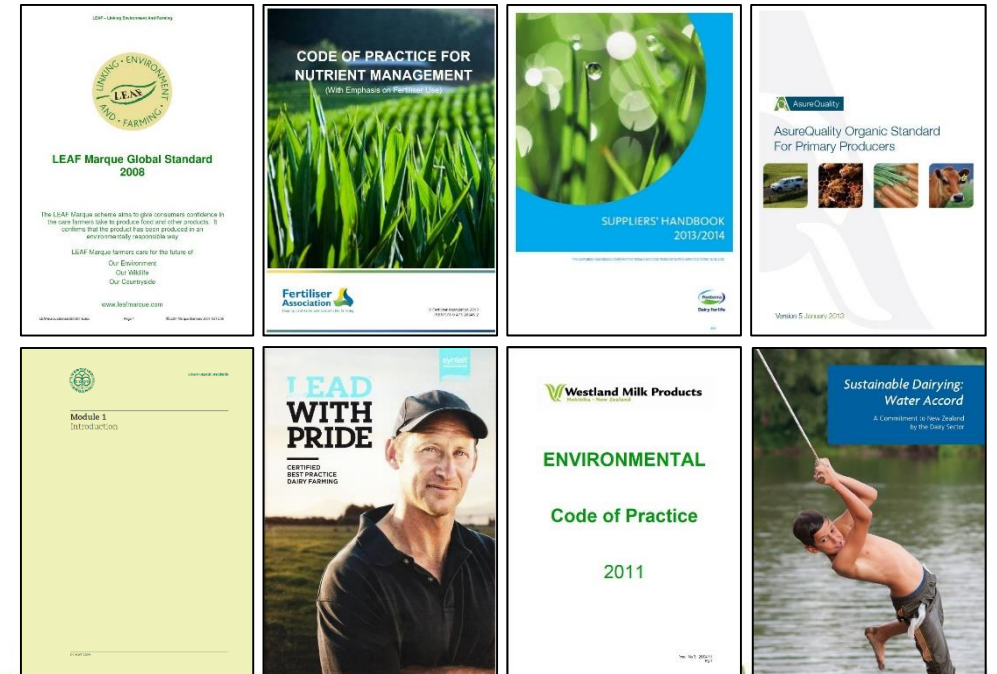
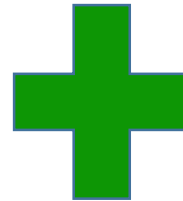
Ver. No 3, 20/04/11 Pg 1

Sustainable Dairying: Water Accord

A Commitment to New Zealand by the Dairy Sector



What is the current design of voluntary dairy schemes in respect to attributes of an effective scheme?



Methods



- Scheme documents only
- Design framework
- Content analysis
- NVivo 10 (QSR International)



NVivo 10 Qualitative Software



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The screenshot displays the NVivo 10 software interface. The main window shows a document titled "Evaluation of dairy schemes.nvp - NVivo" with the following text:

to enhance soil fertility levels and soil structure.

c. As the commercial livestock farm situation may result in net export of some nutrients in the products, replacement of nutrients from external sources may be required. The timing and method of application of approved fertilisers should be determined according to soil type, stock type, climate, and weather conditions.

d. Where the land is suitable, mixed farming is encouraged where livestock are run as part of an organic mixed farming rotation that includes crops and grazed pasture.

4.2.3 Requirements of the Standards

a. **Soil management plan**
The management plan must include plans to minimise damage to soil structure and to minimise soil compaction.

b. **Soil testing**
Regular soil testing, as specified below, is required to:

- monitor fertility levels to ensure that the overall fertility of the farm's soils is maintained and enhanced; and/or
- determine whether mineral supplementation is necessary and appropriate; and/or
- determine the need for restricted fertilisers.

Herbage testing may also be used to evaluate the need for nutrients such as trace minerals, but is not an alternative to soil tests.

Soil test(s) from at least one productive area on the farm are required annually for C0, C1, and C2 properties. Annual tests thereafter are not obligatory, but may be required at the auditor's discretion if there are concerns regarding fertility levels.

Soil tests must always include tests for organic matter levels.

Soil and herbage/foliar testing must be carried out under an ISO 17025 accredited laboratory test, where available. If an ISO 17025 accredited laboratory test is not available for that type of test, then BioGro written approval for the test to be carried out is required for acceptance under these standards.

On the right side of the interface, a coding scheme is visible with the following categories:

- Regulation requirements
- Biorecovery
- Compliance with regulations and industry standards
- Nutrient Management
- Erosion and soil structure
- Water Quality
- Nutrient Management
- Water Management
- Maintenance of soil health
- Soil Management
- Sub-goal
- Third-party auditing
- Complacency
- Monitoring & Measurement
- Animal Welfare
- Socio-Economic Factors
- Environmental Factors
- Goals & Objectives
- Scheme Focus
- Objectives
- Outcome-based objectives
- Practice-based objectives
- Coding Density

The bottom status bar shows: 1 Item, Nodes: 41, References: 656, Read-Only, Page: 1, 100% zoom.

NVivo 10 Qualitative Software



- Data Collection (pdf, websites, .docx)
- Coding text (node = attribute)
- Storage & Organisation
- Making Queries





Scheme Focus



Goals &
Objectives



Monitoring &
Measurement



Communication
& Involvement



Incentives &
Support





Scheme Focus

Environmental aspects
Socio-economic aspects



Goals & Objectives

Scheme Goals
Objectives
Regulation requirements
Industry Standards



Monitoring & Measurement

1st party monitoring
2nd party monitoring
3rd party monitoring



Communication & Involvement

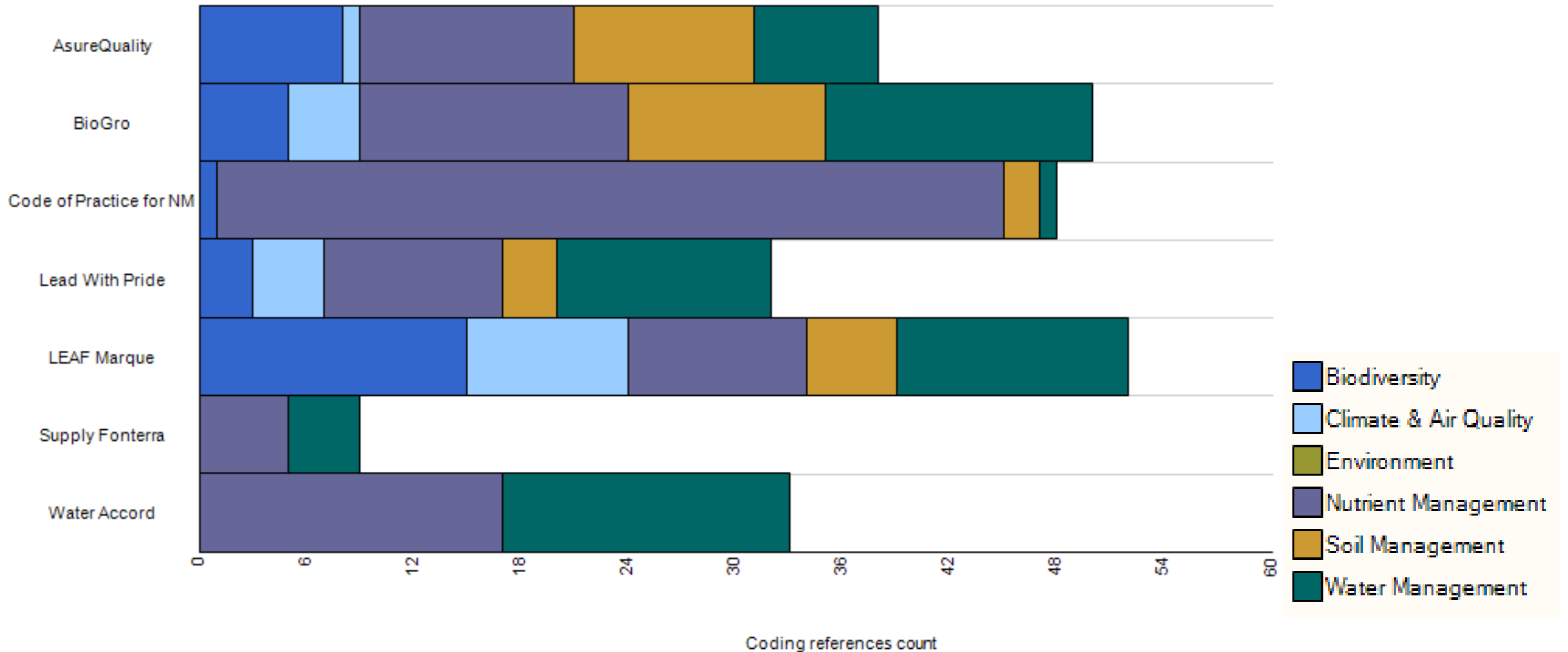
Communication
Involvement



Incentives & Support

Direct Incentives
Indirect Incentives
Support

Environmental Focus

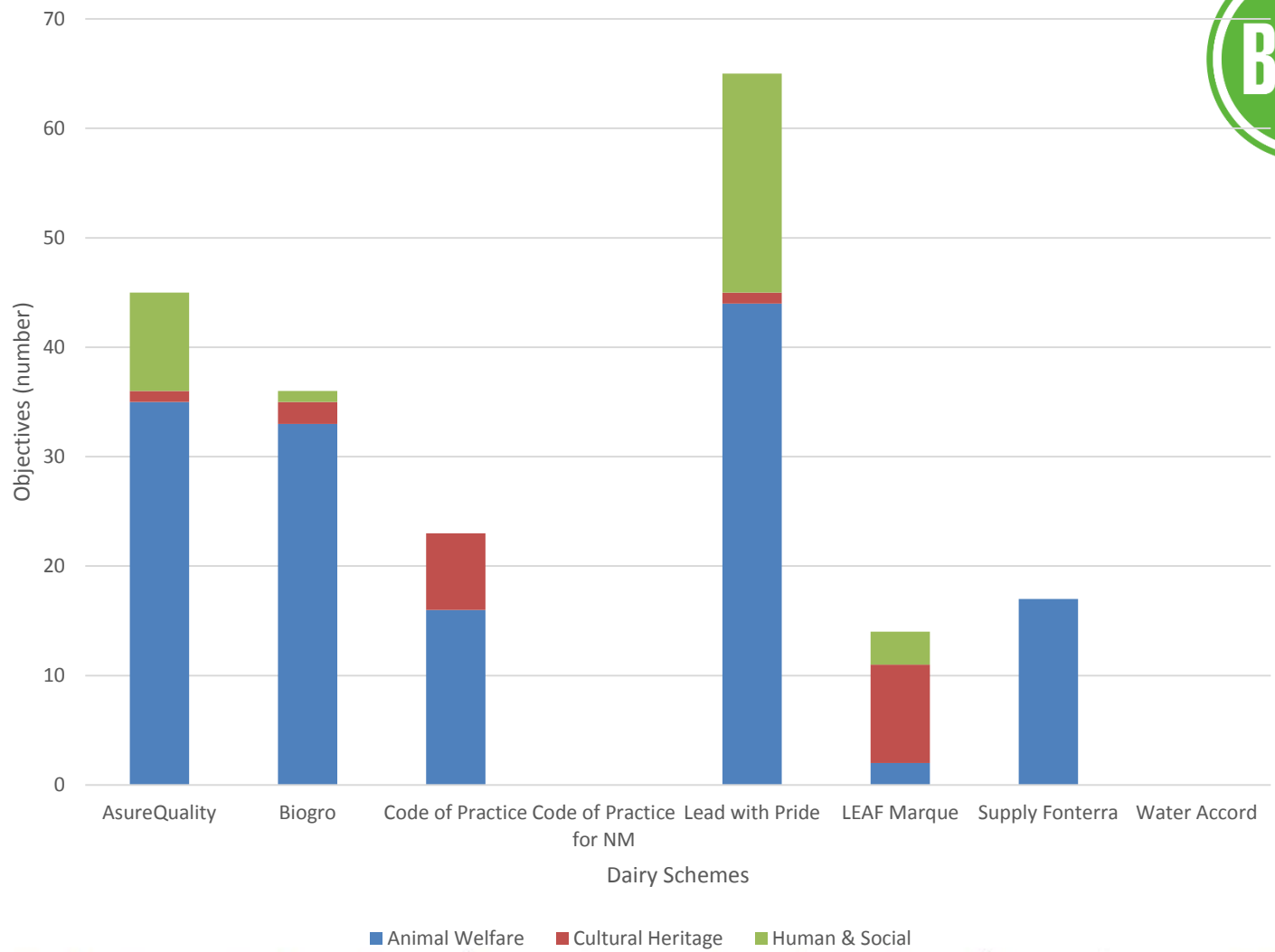


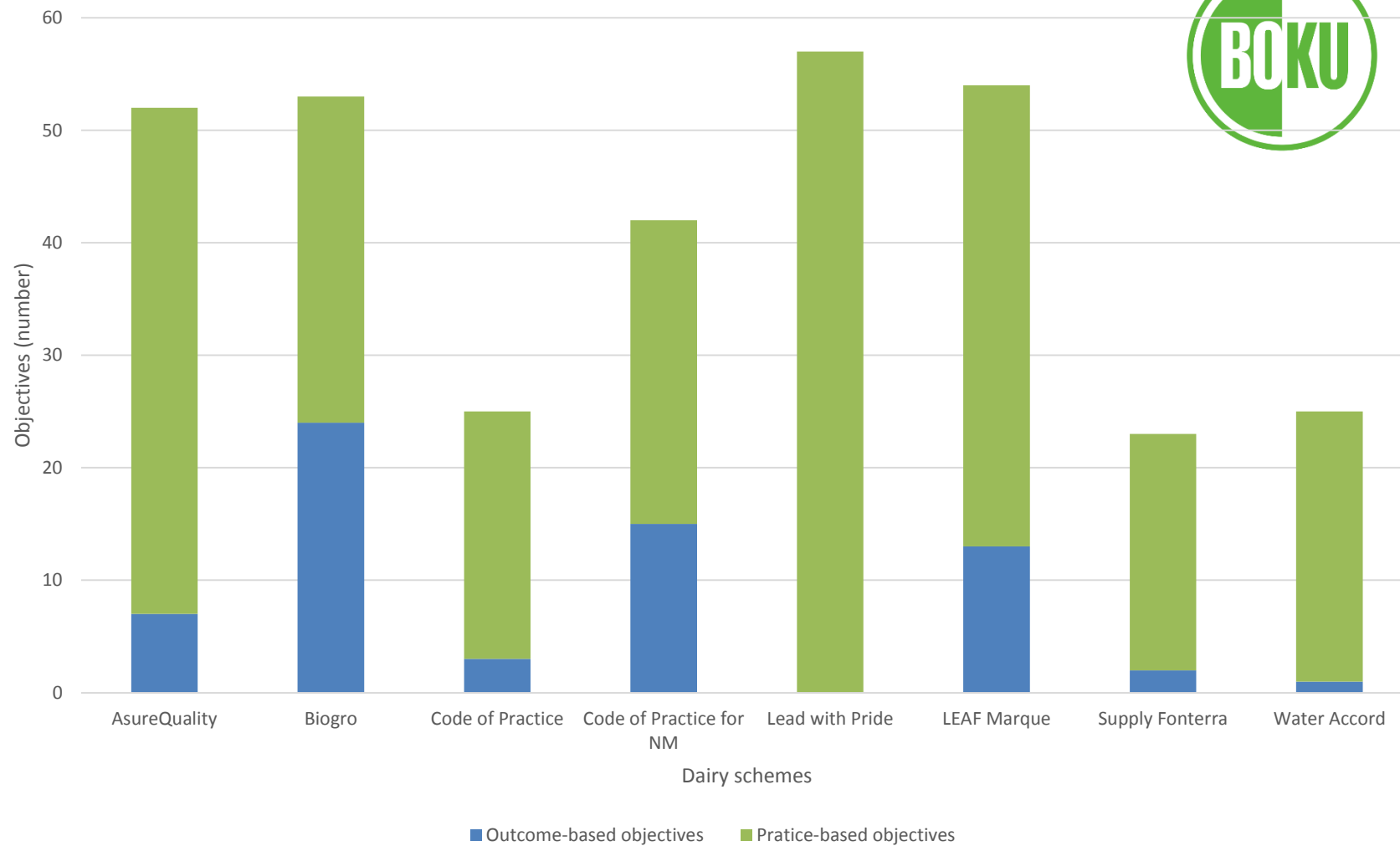
Environmental aspects



- Nutrient Management
 - Effluent, fertiliser and general nutrient management
- Water Management
 - Water quality, water efficiency, stock exclusion, riparian planting
- Soil Management
 - Soil health, erosion and structure, contamination of soil
- Climate & Air Quality
 - Energy use and efficiency, pollution to air, CO₂ emissions
- Biodiversity
 - Maintenance of ecosystems, protection of native vegetation







Industry & Regulatory Requirements



	Regional Rules	Resource Management Act	Regulatory Requirement	Industry Standard
AsureQuality	✓	✓		
BioGro	✓		✓	✓
Code of Practice	✓	✓		✓
CoP for NM	✓	✓	✓	✓
Lead With Pride	✓		✓	✓
LEAF Marque	✓		✓	
Supply Fonterra	✓		✓	✓
Water Accord	✓		✓	



Monitoring



Monitoring	First-Party Monitoring	Second-Party Monitoring	Third-Party Monitoring
AsureQuality			✓
BioGro			✓
Code of Practice		✓	
CoP for NM	✓		
Lead With Pride			✓
LEAF Marque			✓
Supply Fonterra		✓	
Water Accord			✓



Incentives & Support



- Direct and indirect incentives to farmers
 - Incentive payments
 - Increases in production
 - Access to export markets
- Support for farmers



Communication



Communication	Farmers	Public	Scheme	Stakeholders
AsureQuality		✓		
BioGro		✓		
Code of Practice	✓			
Lead With Pride		✓		
LEAF Marque		✓		✓
Supply Fonterra	✓		✓	
Water Accord	✓		✓	✓



Involvement



- Government
 - LEAF Marque
 - Sustainable Dairying: Water Accord
- Stakeholders
 - LEAF Marque
 - Sustainable Dairying: Water Accord

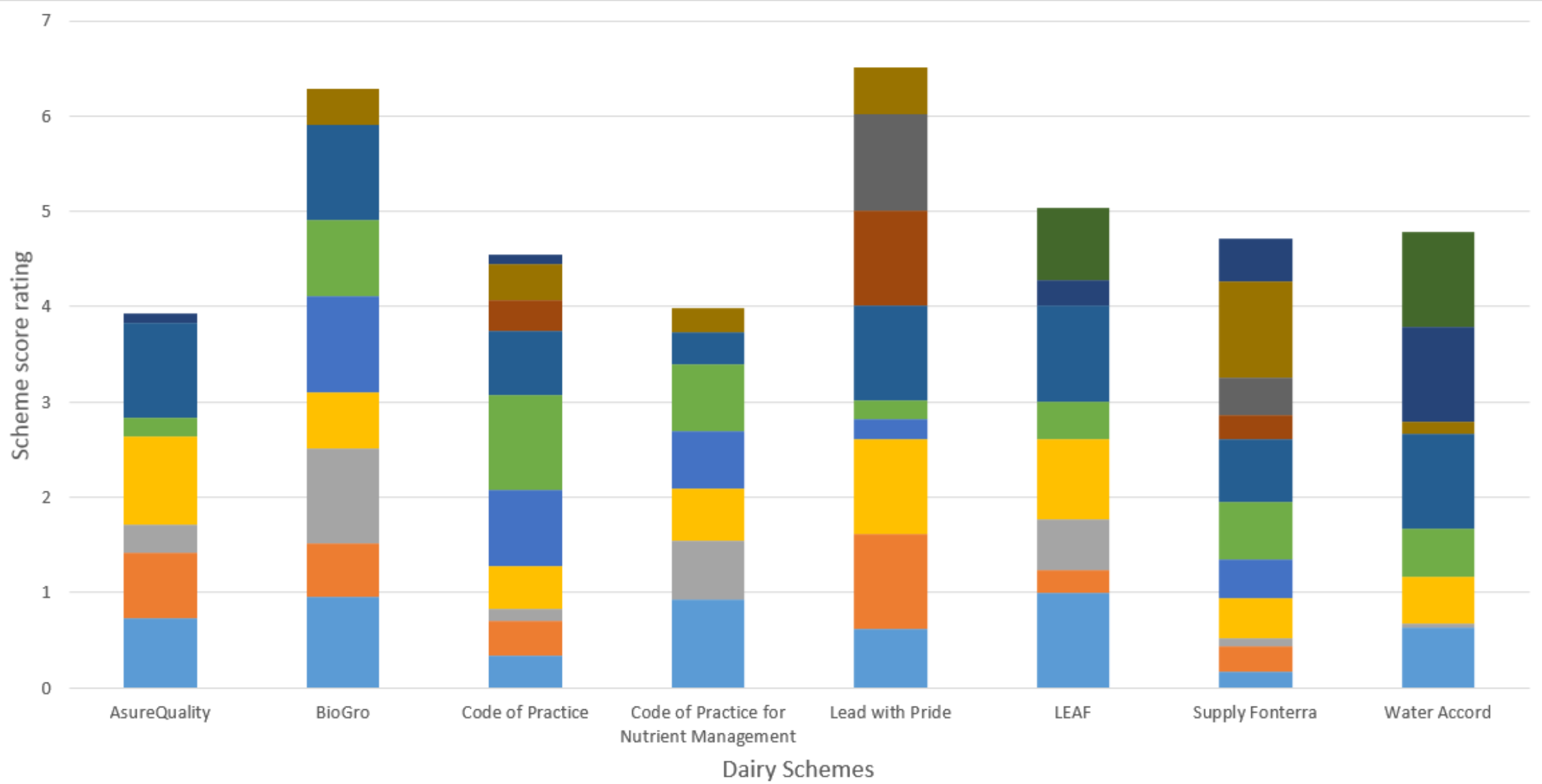


Design Attributes



- Dairy scheme score system
- Used previous findings from NVivo 10 analysis
- Quantitative comparison the schemes





- Environmental focus
- Industry standards
- Indirect Incentives

- Socio-Economic factors
- Regulation requirements
- Support

- Outcome-based objectives
- Monitoring
- Communication

- Practice-based objectives
- Direct Incentives
- Involvement

Key Findings



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- Over half the schemes used a third party to conduct the monitoring
- Nutrient Management was the main environmental focus
- Schemes included little information on the development and communication methods used
- Some incentives and support were provided



Outcomes



- Increased understanding of voluntary schemes used in dairy farming
- Determine what the current environmental focus is
- The dairy industry's response to addressing environmental issues
- Determine the gaps of these schemes



Thank you!

Shannon Coghlan

M. Na.R.M.E&E candidate

Agribusiness and Commerce

Lincoln University

New Zealand

Email: Shannon.Coghlan@lincolnuni.ac.nz

