

*“Human Capital is the most important form of capital”*

**Managers:** Matt and Sam Bell

**Align Longfield:** 283 ha dairy farm on stony Lismore and stony Balmoral soils

**Shed:** 70 Bail rotary with cup removers and in-shed meal system

**Irrigation:** Fully irrigated with MHV water and groundwater (pivot and long line sprinklers)

**Supplies:** Westland Milk Products

**Supplementation:** 600kg per cow

- 1,100 cows at peak milking (4.0 cows per ha) with milk solid production of 464,500kgMS or 1,689 MS/ha
- Stock grazed off platform with 5 ha of transitional fodder planted annually
- Current pasture sward is rygrass/white clover, transitioning to include plantain/red clover
- 2016-17 N Loss - 46 kg N/ha/year (OVERSEER) ; Baseline - 56 kg N/ha/year (OVERSEER)

## Staff Management

Align uses Five Key Principles:

1. Quality Farm Infrastructure
  2. Quality Housing
  3. Good Pay and Working Conditions
  4. Good rosters with flexibility—capacity in FTE units allows for this
  5. It is important to invest your time in your staff
- Monthly environmental stewardship and health & safety awards encourages staff to come up with innovative ideas which are shared
  - Staff are nominated by other staff recognising efforts on various aspects
  - Staff training through ITO programme with refund of course costs on completion
  - Infrastructure design allows for quality job to be done first time
  - Use of *WhatsApp* streamlines communication between staff.
  - Screen in cow shed continually rolls with messages and information
  - General farm meetings every Monday
  - Highly staffed to provide roster flexibility
  - Good housing, pay and working conditions

## Planting for Biodiversity

Plantings started in 2013, with plans to plant one or two fence lines a year. Species are selected based on aesthetics and shelter. Toe toe and flax bulk out and provide good wind breaks and do not require ongoing maintenance such as topping.

**Planting Benefits:**

- Shelter for the animals
- Animal Welfare
- Privacy from the road
- Aesthetics
- Very little maintenance after the first two years. There is weed maintenance for the first two years.



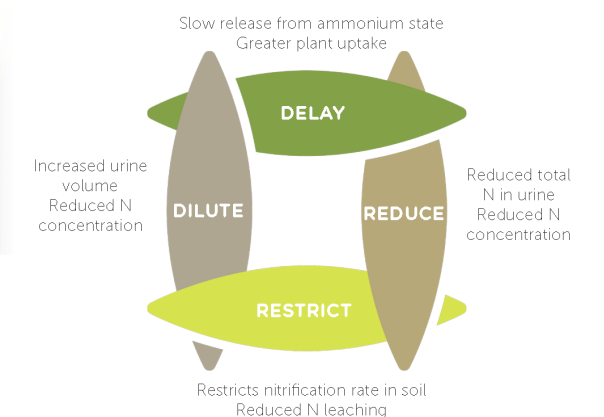
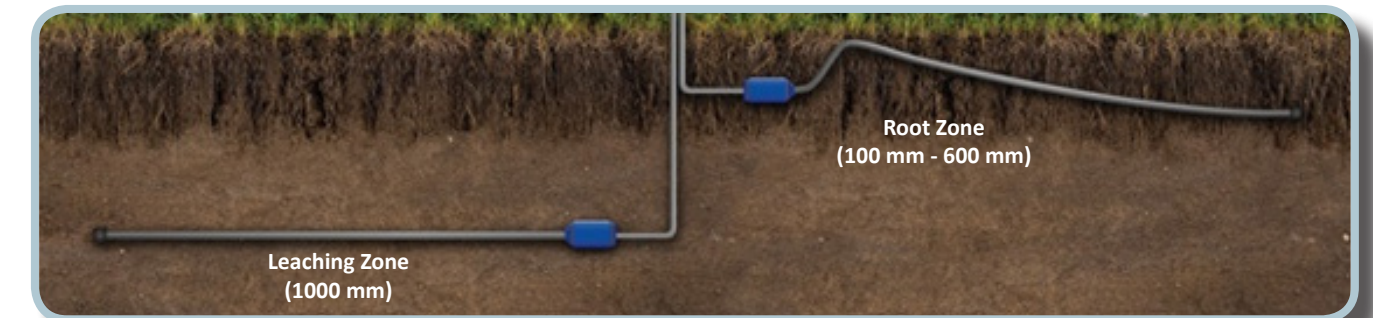
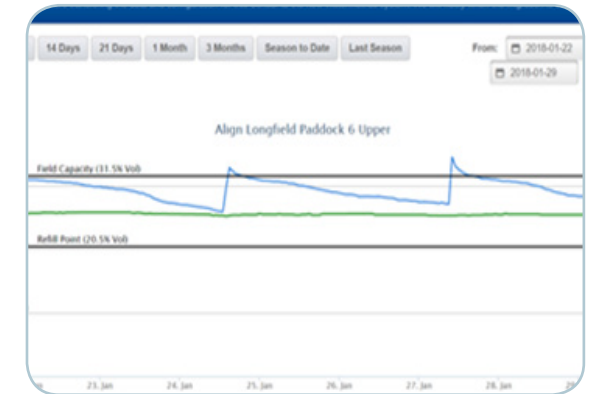
## Soil Moisture Monitoring

Soil Moisture Monitoring is a management tool which helps to ensure every drop of irrigation water is used efficiently and stays within the soil profile accessible to plants.

Align Longfield – has two soil moisture monitoring locations using Aquaflex Tapes. These tapes are installed under the two main soil types on the farm at two depths. The information from the tapes are used to ensure the right amount of water is applied at the right time to maximise efficiency.

Right: Watermetrics information

Below: Soil Moisture Monitoring system underground



### HOW IT WORKS

Ecotain® combines not one, but four modes of action that work together to significantly reduce N leaching from the urine patch.

- 1 DILUTE** Ecotain environmental plantain increases the volume of urine animals produce, which means the N being excreted is in a more dilute form, resulting in a reduced N load in the urine patch.
- 2 REDUCE** Ecotain reduces the amount of dietary N which is excreted in urine, compared with ryegrass. This reduces the amount of N released into the soil via the urine patch.
- 3 DELAY** In urine patches from animals grazing Ecotain, the conversion from ammonium to nitrate is delayed. Slower conversion allows plants a greater opportunity to uptake N, significantly reducing the potential for leaching.
- 4 RESTRICT** The presence of Ecotain plants in the soil reduces nitrification, likely through the effect of a biological nitrification inhibitor.

BROUGHT TO YOU BY:



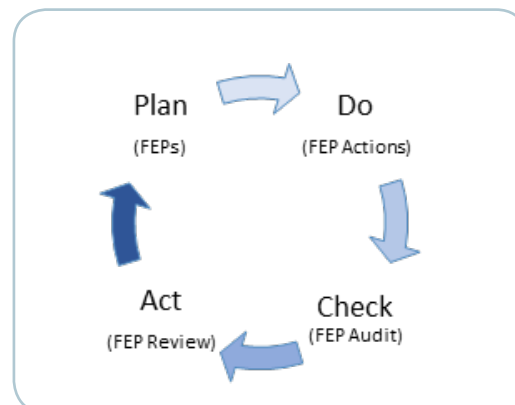
Thank you to our generous supporters....



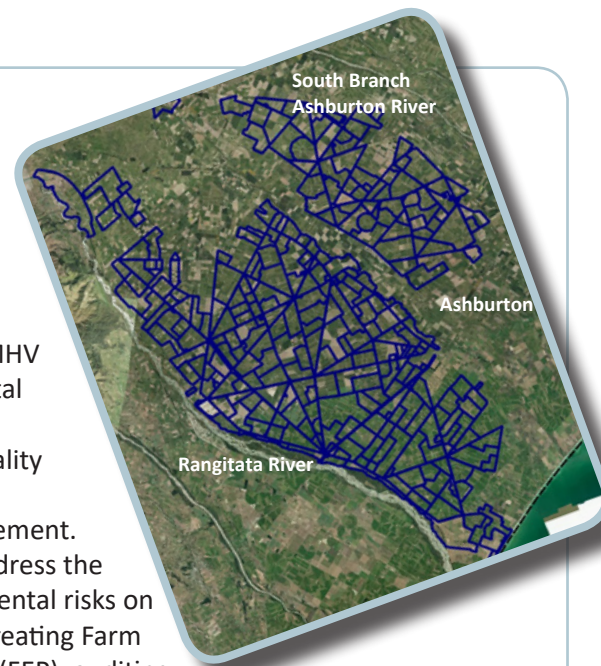


## MHV Water Environmental Programme

MHV Water delivers up to 21.4 m<sup>3</sup>/s of water to 204 shareholders located between the Rangitata River and the South Branch of the Ashburton River.



All shareholders are required to participate in the MHV Water Environmental Programme, which improves water quality through a cycle of continuous improvement. We identify and address the potential environmental risks on each property by creating Farm Environment Plans (FEP), auditing them and providing on-going advice and support.



## Farm Environment Plan (FEP) Audits

An FEP audit is an independent on-farm assessment to check the risks identified in the FEP are managed effectively and that the Good Management Practices (GMP) are being implemented.

Seven management areas are assessed in the audit, of which two are Irrigation and Effluent.

### Irrigation

*GMP 1: Justify irrigation on basis of soil moisture data, climatic information and crop requirements*  
*GMP 2: Irrigation systems are maintained, calibrated and operated to apply irrigation water at the optimal efficiency*

Align Longfield use soil moisture monitoring tapes and monitor the weather to assist with irrigation decision making. They also:

- Complete a full service or WOF annually
- Have a weekly checklist "Maintenance Monday"
- Complete bucket and pressure tests annually

### Effluent

*GMP 1: Apply effluent to pasture and crops at depths, rates and times to match plant requirements*  
*GMP 2: Sufficient, suitable storage effluent is available*  
*GMP 3: Equipment for spreading effluent is well maintained and calibrated*

Align Longfield have invested in high quality dairy effluent infrastructure and are able to meet the above GMP's by:

- Low application rate method
- Large effluent irrigation area
- Dairy Effluent Storage Calculator used to calculate storage requirements
- Soil moisture monitoring used to assist when to apply effluent
- Effluent maintenance included in "Maintenance Monday"

## ALIGN LONGFIELD

### OPEN GATE FIELD DAY



## Programme

*Mycoplasma bovis is confirmed in Mid-Canterbury. Please respect the biosecurity measures of this property and scrub your boots on arrival.*

**9.30am** Arrival & Morning Tea

**10am** Introduction and MHV Environmental Programme  
 - Eva Harris, Environmental Manager, Irrigo Centre

**Welcome to Align Longfield; Induction; Health & Safety; Biosecurity**  
 - Matt Bell, Farm Manager, Align Longfield

**Background; Key Facts; GMP; Staff Management Policy**  
 - Rhys Roberts, Head of Operations, Align Farms

**11am** Farm Walk  
**Biodiversity**  
 - Matt Bell, Align Longfield

**Soil Moisture Monitoring sites**  
 - Andrew Curtis, CEO, Irrigo NZ

**Ecotain**  
 - Glenn Judson and Leanne Clemens, Agricom

**11.45am** The Audit Process; GMP; What are Auditors looking for; What impressed the Auditor about Align Longfield.  
 - Alison van Polanen, Director, Enviro Plan

**12.15pm** Wrap Up / Conclusion  
 - Eva Harris, Irrigo Centre

**12.30pm** BBQ Lunch  
 - join us for lunch courtesy of Synlait and Westland Milk

*"ko te wai te oranga o ngā mea katoa"*  
*water is the life giver of all things*

**Accountable**

**Learning**

**Integrity**

**Growth**

**Nimble**

**Family**

**Accessible**

**Respect**

**Motivated**

**Sustainable**

Align's ethos puts the social and environmental responsibilities at the forefront all commercial activities. Their aim is to be leaders in industry while reducing their environmental footprint.