



# Evaluation of an activity and rumination monitor in dairy cattle grazing two types of forages.

**Juan Molfino**, Cameron Clark, Kendra Kerrisk, Sergio García.

Dairy Science Group | FutureDairy

School of Life and Environmental Sciences



THE UNIVERSITY OF  
**SYDNEY**



Dairy  
Australia

 **DeLaval**

# Background

- **Behavioural activities are used as indicators related to cow health and productivity**
- **Precision technologies allow the monitoring, recording and reporting of cow activity**

## AIM

**Evaluate the accuracy of SCR HR-LDn Tag by comparing the electronic data against direct visual observations for **grazing, ruminating** and **resting** in cows grazing **two different types of forages.****



# Methods

- **8 non lactating Holstein cows**
- **10 days of observations: 5 ryegrass - 5 Chicory**
- **2 trained observers - 2 observations sessions / day**
- **Behaviours: grazing, ruminating , resting**

**Accuracy was investigated at two levels:**

1. **At 1-minute interval (n=6977)**
  - **GLMM - Binary variable**
2. **At Session level (n=206)**
  - **Pearson correlation**
  - **Concordance correlation coefficient (CCC)**

# Results

## At 1-min level

		Predicted rate of agreement (GLMM)
Behavioural state	Resting	80%
	Rumination	87%
	Grazing	98%
Type of Forage	Chicory	94%
	Rye Grass	90%

## At session level

