

# **ECPA 2017 Satellite: Precision Management of Grassland & Grazing Livestock**

*The satellite meeting runs from mid-day Tuesday 18<sup>th</sup> July to late afternoon Wednesday 19<sup>th</sup> July 2017*

## **Invited speakers**

Ian Yule (Massey University): Pasture and soil monitoring techniques for use with grazing ruminants.

Christina Umstatter (AgroScope): Tracking and control of livestock in extensive systems.

Bob Rees (SRUC): Prospects for smart soil management techniques in grazing systems - techniques and implications of spatial management of grassland soils.

Mark Rutter (Harper Adams University): Precision monitoring systems for the performance and health of grazing livestock: remote and animal-mounted sensors for monitoring the feeding, performance and health of free-ranging animals.

## **Offered oral presentations**

Profitability of controlled traffic in grass silage production – economic modelling and machinery systems.

Potential for Controlled Traffic Farming (CTF) in Grass Silage Production: Agronomics, system design and economics.

A review of Precision Agriculture as an aid to Nutrient Management in Intensive Grassland Areas in North West Europe.

Estimating pasture biomass with active optical sensors.

Development of methods for remotely sensing grass growth to enable precision application of nitrogen fertiliser.

Aerial Imaging for Grassland Yield Estimation.

Interactions between landscape defined management zones and grazing management systems.

Capability of crop canopy sensing to predict crop parameters of cut grass swards aiming at early season variable rate nitrogen top dressings.

Proximal sensing for monitoring the productivity of a permanent Mediterranean pasture: influence of rainfall patterns.

Soil electrical resistivity in different water levels in an integrated crop-livestock-forest system in Brazil.

MitAgator - a GIS based spatial tool to manage nitrogen, phosphorus, sediment and E.Coli losses from pasture.

Pastures from Space® Plus for teaching precision pasture management.

Cultivar Selection by Cattle Grazing Tall Fescue Infected with Novel Endophytes.

Low-Cost GPS Collars: An Alternative to Commercial Collars for Tracking Cattle During Rangeland Research

The application of a weight-based targeted selective wormer treatment (TST) strategy on hill and upland sheep flocks

Evaluating precision management of sheep in a hill farming system

Evaluation of the RumiWatch technology for measuring detailed grazing activities of cows

Effect of climatic conditions on nocturnal behavior of dairy cows grazing on Alpine pasture

Opportunities for live tracking of sheep and cattle in grassland systems

## **Posters**

A preliminary evaluation of a simple model for the estimation of mountain forage biomass using Sentinel 2 data.

Calving behaviour monitoring through DigitalAnimal platform in dairy cows: Preliminary results.

Grasscheck: weather and grass growth monitoring to improve grassland management in Northern Ireland.

Potential for Controlled Traffic Farming (CTF) in Grassland.

Soil electric resistivity in different water levels in an integrated crop-livestock-forest system.

Evaluating critical nitrogen dilution curve in grass seed production using images from unmanned aerial system.

Towards the estimation of vole damage on grassland by aerial multispectral imaging.

Non-destructive monitoring of grassland canopy height using a UAV.

Prediction of grass dry matter intake in grazing ewes using infrared thermal imaging.