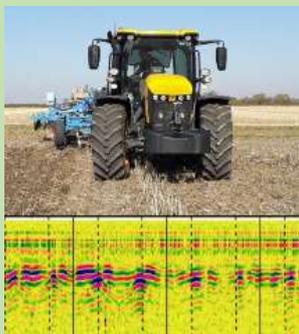


### Guillaume Blanchy

#### Hydrogeophysics for agriculture: capabilities and limitations

The presentation will showcase some of the uses of electromagnetic imaging (EMI) in different situations including; comparing root water uptake of different wheat varieties, simultaneously phenotyping above and below ground crop growth through the growing season using the Rothamsted Scanalyzer, and imaging compaction effect and tillage effects on arable soils.



### Prezmek Dolowy

#### Assessment of soil compaction and effect of traffic management on crop performance

Establishing whether soil compaction can be detected using remote and proximal sensing methods, such as electroconductivity and ground penetrating radar. Experimental setup consists of plots maintained under contrasting traffic regimes and cultivation depths. Crop performance is monitored too. GPR has shown tentatively promising results.

### Magdalena Dolowy

#### Controlled traffic farming delivers higher crop yield a result of improved root development

The experiment focuses on soil properties and crop development resulting from 3 traffic systems (random with standard tyre inflation pressure - STP, random with low inflation pressure tyres - LTP and controlled traffic farming- CTF) contrasted with 3 tillage depths (250 mm, 100 mm and zero tillage).



### Dimitris Mallis

#### Landmark Localisation as a new approach for Animal Monitoring

Animal monitoring in Agriculture can improve both production efficiency and animal welfare. Current image analysis techniques detect animals through bounding boxes or pixel masks and have limited ability to infer body part correspondence. I will discuss the use of landmark localization as a new approach in estimating high level animal behaviour.

### Joe Martlew

#### Quantifying and alleviating deep-seated compaction in arable soils

This project aims to improve methods for quantifying and alleviating subsoil compaction. Utilising a combination of laboratory research and NIAB's long-term field experiments, the effect of subsoil compaction on soil properties and crop performance will be quantified and potential solutions assessed to provide practical information for growers.

