

Soils and Nutrient Management

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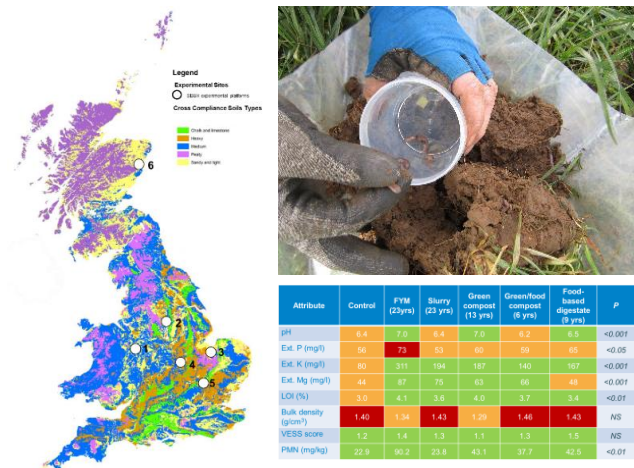


Rotations Partnership



- Two 5 year soil projects
- Trials
 - Long term experiments
 - Rotations and interventions e.g. OM, cover crops
- Monitoring, measurement and assessment
 - Soil biology, chemical and physical indicators
 - Scanning and imaging techniques
 - Productivity and economics

Soil Biology Soil Health Partnership



Cultivations and compaction – Terranimo UK

www.terranimouk.com

Terranimo® is a model for prediction of the risk of soil compaction due to agricultural field traffic

Select machine | Describe site | Results: Contact stress | Results: Profile soil strength and stress

Select machine

- Big tractor
- Medium tractor
- Small tractor
- Big tractor with tracks
- Medium tractor with tracks

Big tractor **Slurry spreader**

Click tyre icon to change tyre
Hold mouse over a tyre icon or axle icon to see specification

- Beet harvester
- Big baler
- Fertilizer
- Four wheeled straw wagon
- Mounted fertilizer
- Mounted sprayer
- Potato harvester
- Slurry spreader
- Slurry spreader
- Slurry spreader
- Two wheeled straw wagon
- No implement

Type the technical name of the tyre you want to use (e.g. 800/50R34). The system will display the options available in the data base.

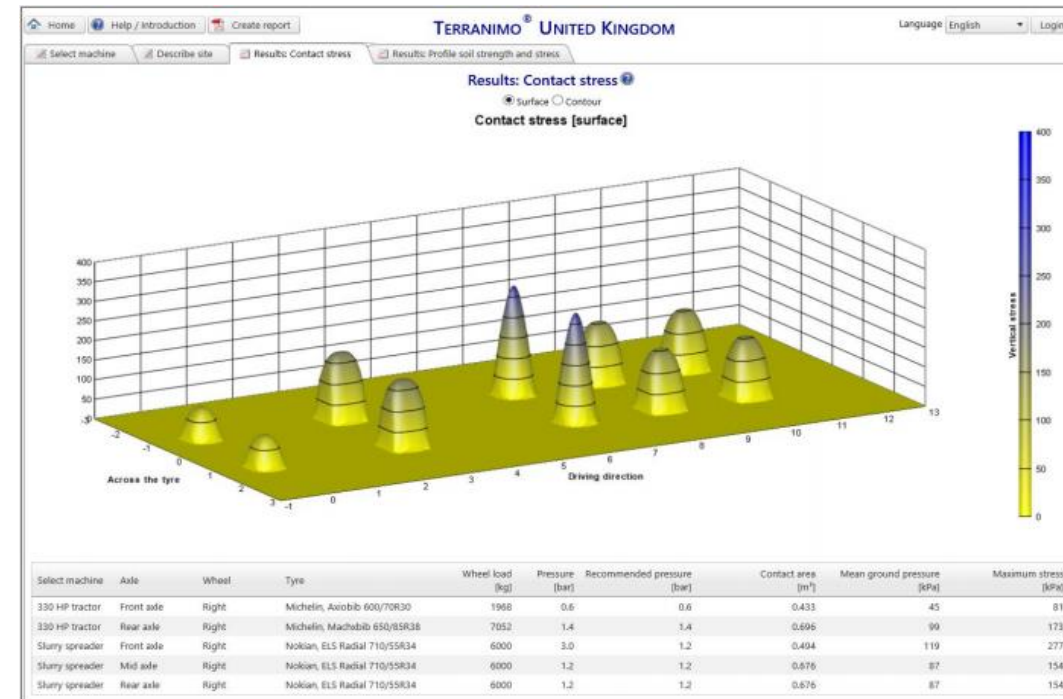
Traction Implement

Select tyre:

Recommended pressure [bar]

Pressure [bar]:

Load [kg]:



Developing and validating indicators of soil biology and soil health

- Visual assessment of soil structure (VESS)
- Penetrometer resistance
- Bulk density

- pH
- Routine nutrient analyses (P, K, Mg)
- Soil organic matter / loss on ignition
- Total N
- Potentially mineralisable nitrogen

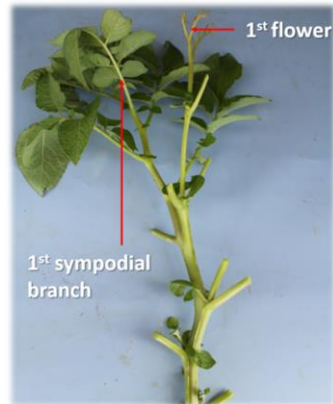
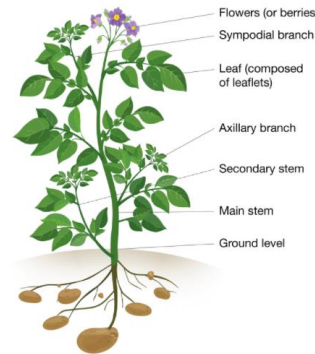
- Earthworms
- Mesofauna
- Nematodes
- Microbial biomass carbon
- Respiration: Solvita® test



- DNA measures of pathogens and soil health

Nitrogen (determinacy) groups

- Practical method of assigning N groupings by counting potato leaves on the main axis
- Better grouping of varieties will improve N recommendations
- Updated N groupings will be published in the Nutrient Management guide RB209



The proposal:

