

Key Staff

Thomas Mayr, Head of NSRI, Principal Research Fellow in Pedometrics, t.mayr@cranfield.ac.uk

Ron Corstanje, Theme Leader – Spatial Geosciences, Lecturer, roncorstanje@cranfield.ac.uk

Stephen Hallett, Theme Leader – Soil Spatial Informatics, Principal Research Fellow in Soil Resource Informatics, s.hallett@cranfield.ac.uk

Jane Rickson, Theme Leader – Soil and Land Management, Professor of Soil Erosion and Conservation, j.rickson@cranfield.ac.uk

Karl Ritz, Theme Leader – Soil Systems, Professor of Soil Biology, k.ritz@cranfield.ac.uk

Mark Kibblewhite, Professor of Applied Soil Science, m.kibblewhite@cranfield.ac.uk

Guy Kirk, Professor of Soil Systems, g.kirk@cranfield.ac.uk

Mark Tibbett, Professor of Soil Ecology, mark.tibbett@cranfield.ac.uk

Pat Bellamy, Principal Research Fellow in Statistics, p.bellamy@cranfield.ac.uk

Tim Brewer, Senior Lecturer in Resource Survey, t.brewer@cranfield.ac.uk

Jacqueline Hannam, Senior Research Fellow in Pedology, j.a.hannam@cranfield.ac.uk

Iain James, Senior Lecturer in Sport Surface Technology, i.t.james@cranfield.ac.uk

Caroline Keay, Senior Environmental Information Scientist, c.keay@cranfield.ac.uk

Abdul Mouazen, Senior Lecturer in Agricultural and Environmental Engineering, a.mouazen@cranfield.ac.uk

Robert Simmons, Lecturer in Soil Erosion and Conservation, r.w.simmons@cranfield.ac.uk

About Cranfield University

Cranfield University is a wholly postgraduate university with an international community and a truly global reputation. Ranked first in the UK for staff and student ratios and with a top five ranking for student employment on graduation, an excellent rating for teaching, and exceptional facilities, Cranfield makes an ideal destination for advancing careers. All courses are designed to meet the training needs of industry and have strong input from experts in their sector. Our focus is on applied research and developing industry's future engineers, managers, consultants and entrepreneurs.

The National Soil Resources Institute (NSRI) at Cranfield University exists to support the sustainable management of soil through research, development, education and information services. NSRI has acted as the national centre for investigation of soils within England and Wales for over seventy years and is the UK National Reference Centre for Soil to the European Environment Agency. It has a national and international reputation for scientific research, consultancy and training. NSRI's success depends on effective and efficient delivery of these services, meaning that they are fit for purpose in relation to clients' requirements. NSRI and its management are committed to providing clients with services that meet their requirements fully, through excellence in science, design, project management and teaching.

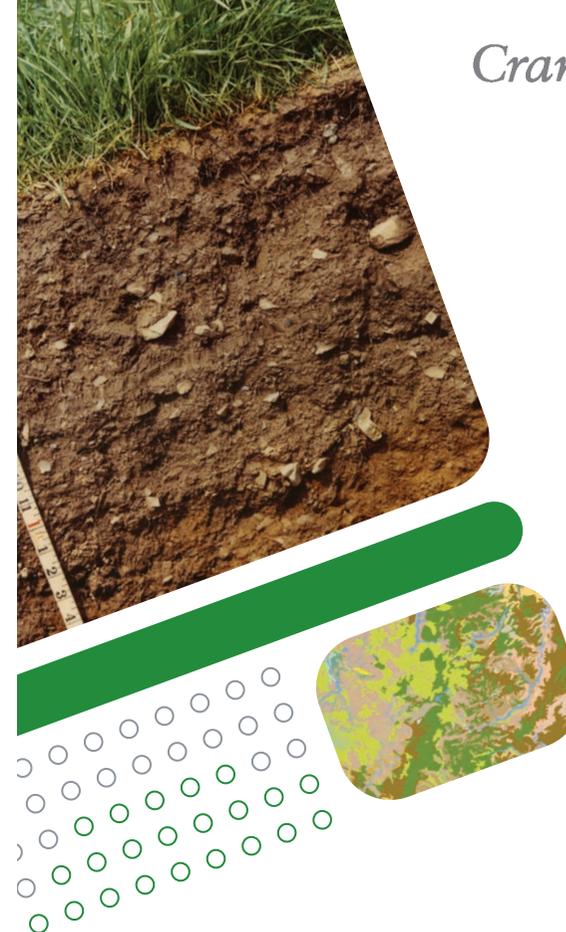
Contact

For further information please contact:

Dr Thomas Mayr
NSRI
Cranfield University
Cranfield
Bedfordshire
MK43 0AL, UK

T: +44 (0) 1234 750111
E: t.mayr@cranfield.ac.uk

www.cranfield.ac.uk/sas/nsri



National Soil Resources Institute at Cranfield

www.cranfield.ac.uk/sas/nsri

The Centre

The National Soil Resources Institute (NSRI) is a well established centre within the Department of Environmental Science and Technology. It leads Cranfield's research on soil science and soil policy through four inter-linked research themes, specifically by:

- Understanding the physical, chemical and biological processes that make up **Soil Systems**, which fundamentally provide the capacity for delivery of soil-based ecosystem services;
- Describing processes that expose or protect soils from threats (e.g. organic matter loss, erosion, contamination, compaction, loss of biodiversity and sealing), and developing policy and better technologies for **Soil and Land Management** in both rural and urban areas. This includes work on sports surfaces, as well as the application of engineering design and evaluation methods to improve the performance of off-road vehicles, construction equipment and agricultural machines;
- Creating, maintaining and exploiting soil resource inventories and monitoring systems with **Soil Spatial Informatics**;
- Measuring, monitoring and assessing soils and their functions, provisions and services: from space observation to the laboratory using **Spatial Geosciences** techniques.



NSRI Capabilities and Facilities

NSRI staff work within the UK and internationally for a broad range of clients delivering teaching, research and consultancy. Our core expertise includes:

- Physical, chemical and biological processes in soil systems
- Soil functions and ecosystem services
- Soil degradation and threats to soil
- Pollution assessment and contaminant remediation
- Soil management and conservation technologies
- Mine restoration and reclamation
- Soil and water engineering
- GIS, remote sensing and data specifications
- Soil resource inventory and monitoring
- Digital soil mapping
- Sports surface technology
- Soil policy and law

To undertake our work, we use a range of dedicated facilities:

- A **soil bin**, capable of testing draught and vertical force requirements and tillage efficiency using an Extended Octagonal-Ring Transducer;
- A **wet laboratory**, housing slope-adjustable runoff and erosion rigs, rainfall simulators and a soil moisture test box for soil engaging equipment;
- A **soil lane**, capable of testing the impact of vehicle trafficking on substrate soil properties;
- The **Wolfson Field Laboratory** which contains 24 lysimeters with controlled soil moisture and temperature, connected to gas flux chambers and a stable isotope mass spectrometer;
- **Land Information System (LandIS)**, a unique resource; the national soil maps and land information system for England and Wales, described at www.landis.org.uk;
- The **National Soil Archive** holding many tens of thousands of observations, records, surveys and maps relating to soil and land conditions in the UK and internationally;
- The Cranfield University **experimental farm**, which is commercially-run and, used for field scientific and engineering research, offers opportunities for replicated plot experiments in contrasting soils, field and sub-catchment scale research, and machinery studies;
- **Soil and water research laboratories** with specialist equipment for physical, chemical and microbiological analysis. The laboratories include a fully-equipped soil physics suite and a radio-isotope capability, as well as a collection of over 60,000 geo-referenced soil samples;

Supporting facilities

including an instrumentation laboratory and workshop, a range of soil mechanical and physical properties test equipment, photogrammetry equipment, a laser-optical Disdrometer, surveying equipment, field rainfall simulators, an outdoor experimental test area and the single wheel tester.

Education

At NSRI we seek to equip individuals with a capacity to generate new understanding and knowledge on soils, and to apply such knowledge to a diverse range of applications.

We offer MSc courses in **Land Management** with options covering Land Reclamation and Restoration, Natural Resources Management, Ecological Conservation and Soil Management and an MSc in **Geographical Information Management**.

Other related Cranfield MSc courses include: Economics of Natural Resource and Environmental Management; Environmental Diagnostics and Management; Environmental Risk Management; Environmental Water Management and Environmental Engineering.

We also offer research degrees including Engineering Doctorate Programmes (EngD), PhD, MPhil Degrees and MSc by research.

Continuing Professional Development (CPD) courses are also a key component of our education portfolio. Individuals can join tailored components of our taught MSc modules, which offer an ideal vehicle to gain up-to-date, specific training in a range of disciplines. Alternatively, stand-alone short courses are advertised throughout the year. These CPD courses can be adapted to provide cost effective tailored courses, individually designed to give specific organisations the training their staff need, when they need it. Full details of courses are available on our web site www.cranfield.ac.uk/sas/nsri