SoilCYCLE
Advancing In-Crop Organic Manure Application

Introduction to SoilCycle

Ciaran Collins, Project leader

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Co-funded by the European Union

eip-agri
AGRICULTURE & INNOVATION

SoilCYCLE
Advancing In-Crop Organic Manure Application

eagasc
Agriculture and Food Development Authority

SoilCYCLE

Advancing In-Crop Organic Manure Application

Key Objective

To increase adoption of in-crop organic manure application in tillage crops.

Soil Cycle is funded under the European Innovation Partnerships (EIP) initiative as part of Ireland's CAP Strategic Plan 2023–2027, co-funded by the Irish Government and the European Union.

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Co-funded by the European Union

eip-agri
AGRICULTURE & INNOVATION

SoilCYCLE
Advancing In-Crop Organic Manure Application

Teagasc
Agriculture and Food Development Authority

Aims of SoilCycle

- Reduce Reliance on Chemical Fertiliser
- Improve Nutrient Use Efficiency
- Improve Tillage Soil Health
- Reduce Nutrient Losses
- Support Circular Economy

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Co-funded by the European Union

eip-agri
AGRICULTURE & INNOVATION

SoilCYCLE
Advancing In-Crop Organic Manure Application

teagasc
Agriculture and Food Development Authority

WHY is In-Crop Application Important

Without in-crop application ~50% of the cereal area is effectively excluded from organic manure use.

2026 example:

- Winter cereals: 135,000 ha
- Spring cereals: 132,000 ha

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Co-funded by the European Union

eip-agri
AGRICULTURE & INNOVATION

SoilCYCLE
Advancing In-Crop Organic Manure Application

teagasc
Agriculture and Food Development Authority

WHATS The Challenge

Nutrient value – What's actually in the slurry?

Timing – When should it be applied?

Crop response – Can chemical fertiliser be safely reduced?

Machinery – Will in-crop application damage soil or crops?

Logistics – How far can slurry be economically transported?

Cost – Does it stack up?

Confidence – Can it work under Irish conditions?

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Co-funded by the European Union

eip-agri
AGRICULTURE & INNOVATION

SoilCYCLE
Advancing In-Crop Organic Manure Application

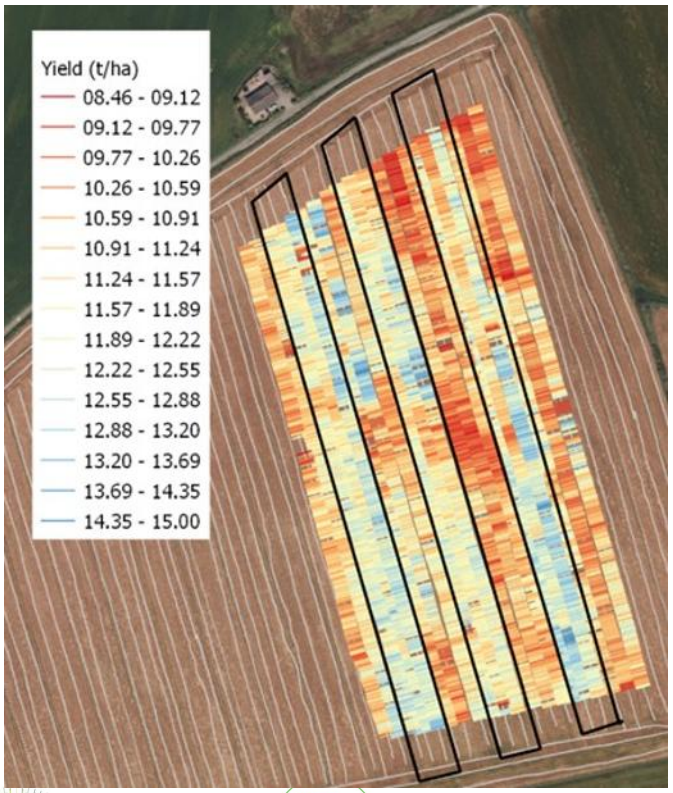
teagasc
Agriculture and Food Development Authority

HOW? Farmer Led, On-farm Validation

Project Hubs

- Focus farmers
- Contractors
- Organic manure suppliers
- SoilCycle project team

Tramline Trials



An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Co-funded by the European Union

eip-agri
AGRICULTURE & INNOVATION

SoilCYCLE
Advancing In-Crop Organic Manure Application

eagasc
Agriculture and Food Development Authority

WHAT Are We Testing?

Nutrient content – laboratory analysis ~800 OM samples

Nutrient utilisation – how much chemical fertiliser can be replaced?

Crop performance – effects on yield and crop development

Precision application – GPS & NIR

Wheelings & compaction – machinery effects on soil and yield

Logistics – sourcing, transport, storage and spreading

Economics – what is slurry worth and how far can it travel?

Slurry separation – potential role of separated fractions

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Co-funded by the European Union

eip-agri
AGRICULTURE & INNOVATION

SoilCYCLE
Advancing In-Crop Organic Manure Application

eagasc
Agriculture and Food Development Authority

WHAT Will SoilCycle Deliver?

- Code of Good Practice for in-crop organic manure application
- OMNi template for cooperation and manure transfer
- Cost benefit calculator
- Data base of organic manure values & sampling protocols
- Guidance on nutrient utilisation and chemical fertiliser replacement
- Guidance to minimise compaction and wheeling damage
- Demonstration farms, events and farmer to farmer learning
- Evidence to support wider industry and farmer adoption

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Co-funded by the European Union

eip-agri
AGRICULTURE & INNOVATION

SoilCYCLE
Advancing In-Crop Organic Manure Application

eagasc
Agriculture and Food Development Authority

SoilCYCLE

Advancing In-Crop Organic Manure Application

Thank You

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

Co-funded by the European Union

eip-agri
AGRICULTURE & INNOVATION

teagasc
Agriculture and Food Development Authority