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REPORT SUMMARY

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Impact of different tillage approaches on break crop yields in England

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MSc in Agronomy – 2018

Overview

The New Farming Systems Cultivation experiment is a long running (2008-present) tillage trial in Norfolk, England. The Experiment investigates the effect of different tillage systems on soil physical, chemical and biological properties and crop performance. The experiment is delivered through NIAB TAG supported by The Morley Agricultural Foundation and The JC Mann Trust.

This project investigated the impact of two non-inversion tillage (NIT) systems (deep (DNIT) and shallow (SNIT)) and conventional plough tillage (PT) on soil bulk density, penetrometer resistance and break crop performance (plant populations and crop yield) within spring oat, oilseed rape and spring bean cropping.

Objectives:

- To quantify yield performance in combinable break crops of different tillage approaches
- To determine if there is a relationship between soils physical properties and combinable break crop yields
- To test whether non inversion system are as reliable as the conventional ones and can be used as farming system with confidence.

This report forms part of the study at the Graduate School of Agricultural Studies of Angers leading to the award of an MSc in Agronomy.