

## Reduced tillage results fit farm policy strategy future

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**Results from the first two years of the long-term Syngenta Conservation Agriculture and Sustainable Farming Systems initiative are entirely concurrent with the [proposed direction of Government policy](#).**

It offers growers adopting the technologies potentially exciting economic and ecological gains for their farms, believes Alastair Leake, Director of Policy at the Game & Wildlife Conservation Trust.

[Read more about the research results and experiences here](#)

Speaking at a recent Syngenta R&D Showcase in London, Dr Leake (above) said: “Government policy that includes a reward element for the delivery of public goods offers an exciting potential for UK growers.

“We now have a model where some of the environmental gain by-products of an all-important profitable farming system can be rewarded and contribute to the bottom line.”

Some of the benefits of the reduced tillage establishment regimes, being evaluated against conventional tillage by GWCT and NIAB in a whole farm rotation scenario, include increased earthworm numbers as an indicator of soil health, strikingly more farmland birds and a reduction in soil greenhouse gas emissions. All these factors have been implicated in the recent Government consultation, he highlighted.

Dr Leake indicated the increase in earthworm numbers seen under reduced tillage regimes, compared to ploughing, for example, is importantly generating extra air spaces in the soil profile.

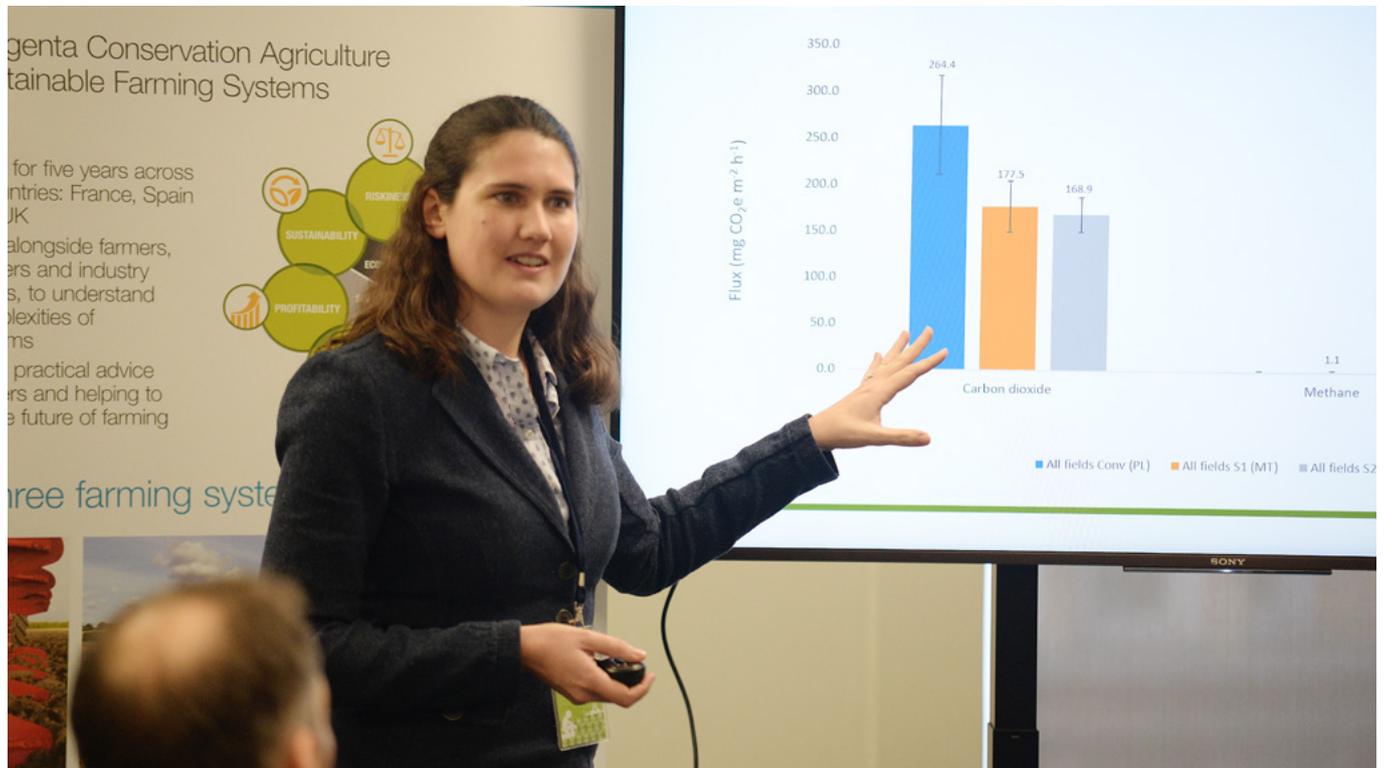


“That helps with water infiltration during periods of heavy rainfall; to reduce the incidence of run-off. But it also acts as a reservoir to hold water that plants can draw on during prolonged dry periods,” he added.

Monitoring of the initiative trials has also shown the huge preference for farmland birds to use stubbles after reduced tillage establishment through the crucial winter period when they are short of food.

“If farmland birds can gain food sources from naturally occurring sources in stubbles, as part of a profitable farming system and at zero cost to growers, it has to have hugely beneficial implications.”

GWCT soil scientist and researcher, Jenny Bussell, also reported results of significant reductions in greenhouse gas emissions from the soil over the growing season associated with lower intensity establishment systems, including min till and direct drill, compared to ploughing.



Allied to that, the study has also shown large reductions in time and fuel use from reduced tillage establishment, with the latter further helping to reduce the potential carbon and greenhouse gas emissions,

Dr Leake highlighted the importance of having farming systems accurately and fully costed, for both farmers' business planning and Government policy direction. The initial years of the project have shown that whilst yields under the reduced tillage systems have typically been lower thus far, where fixed costs can be reduced in line, the systems can be equal or greater in terms of margin and sustainable profitability.

"Crucially, with these technologies we are building resilience into the system, such that the crop is more secure because of what the grower has done," he pointed out.

[Read more about the research results and experiences here](#)

**Tags:**

- sustainable intensive agriculture
- Conservation agriculture
- GWCT
- NIAB-TAG