

# Profiting from Reducing Tillage and Lowering Emissions

## Case Study 1

### Penicuik Estates



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John manages Penicuik Estate's farming operations with currently 1400 acres of the 7000-acre total, farmed in hand.

Since John has been involved with the farm and as land has come back into his management, he works to improve soil fertility. Typically, there's 10 inches of topsoil, some of which are easy working soils, some are peat based and others clay over rock and in all instances most of the land lies between 800 and 1000 ft affecting the choice of cropping. There's 400 acres in the arable rotation, including fodder crops for the 100 cow suckler herd and 200 ewes.

Time is a precious resource for John with livestock in the system to manage each day, so the move to reduced tillage and more specifically strip-tillage with the Claydon was viewed as a route not only to improved timeliness and reduced carbon emissions, but also to improved soil structure and fertility. Considerable emphasis is placed on maximising green cover throughout much of the year as possible and incorporating that cover to build fertility and soil organic matter levels.

Spring barley tends to follow fodder crops of Kale, Swedes or Turnips. Some wheat will also follow cover crops, such as the summer green manures within AECS and winter barley goes in after wheat stubble. In John's interview he comments on how strip-tillage gives him the flexibility to start drilling part-way through the day once the livestock chores are done and still manage to get a sizable acreage planted with this one-pass system .

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