

Soil Scanning & Variable Rate Fertiliser Spreader

Escott Farm

QH1009: 13/01/2022 – 31/03/2024 £ 12,050.00

Escott Farm is a family run beef, sheep and arable enterprise, comprising 3 holdings totalling 307ha in the West Somerset Vale, with owned and tenanted land within the Quantock Hills AONB and Exmoor National Park. The farm had done a trial soil conductivity scan on an area of 26ha and had been surprised to see up to 6 different soil profiles present in one field, as well as massive variations in pH, potash and phosphorous levels. The applicant approached the AONB to see if funding could be secured for soil scanning technology over 250ha to give a more accurate reading of where artificial fertiliser was needed within each land parcel, and the associated variable rate fertiliser spreader.



The Landscape Projects Panel were excited by the innovative technology and the large acreage of land under the applicant's management control. It was also supported in principle by Exmoor National Park's FiPL team. It was agreed to fund at 40% due to the commercial nature of the project and the applicant received £12,050.

This project delivers against the FiPL theme of climate - increasing the efficiency of fertiliser spreading will reduce the use of inputs and increase yields, reducing carbon dioxide and nitrous oxide emissions per tonne of crop produced. As there is less excess artificial fertiliser ending up unused at the fringes of the fields, leaching into hedges, field margins, and streams it can also be said to be better managing existing habitat, one of the Nature outcomes.



The applicant spoke with multiple companies to find comparable soil scanning quotes, as well as getting multiple quotes for the equipment required. On receipt of the soil scanning results, this spring the farmer has been able to spread fertiliser with the optimum kg/ha being delivered to the young crops.

Expanding the soil scanning to include the whole farm will give the applicant more data on the nutrient requirements of both arable and pasture fields on all 250ha of land under their management. The results will be analysed and input into the variable rate fertiliser spreader to allow the correct amount of fertiliser to be applied to each area, within permanent and temporary grass leys and arable fields. The outcome is a maximised yield of crops, whilst simultaneously reducing excess application of inorganic fertilisers. The applicant reports the variable rate spreader has saved time, fuel and fertiliser already in its first spring of operation.

The applicant is part of the AONB facilitation fund and can share their experiences with other local farmers. They are also gathering data on soil organic matter but did not apply for funding for this element of their project. Their results over the next 3 years of FiPL will hopefully lead to substantial change on a large holding, and inspiration for other local farmers to do the same.

Commented [KR1]: I don't think it's a very important detail, but apparently the facilitation fund has ended.