

Soil Erosion and Runoff entering the River Glaven

Bayfield Estate, Glandford, North Norfolk

North Norfolk Rivers Catchment (9)

CSFO: Roger Gerry

Farm Description

The Bayfield Estate is owned by the Combe family and is located within the North Norfolk Rivers Catchment Sensitive Farming Target Area. It is primarily an arable farm with potatoes and sugar beet in the rotation, with some fields rented for outdoor pigs. The farm is on very light sandy loam and loamy sand soils, which are high risk for soil erosion. There are also some steep slopes on the farm >7 degrees, and the river Glaven runs through the farm with one ford crossing point.

Sedimentation and associated phosphate has been identified as an issue in the river Glaven and is the focus for the CSF project in this area.

The Problem

Soil erosion and runoff has been a significant problem on the farm in the past, especially on the fields with outdoor pigs, where the Environment Agency have previously taken action.



Mud on the road at ford approach



Following this Mr Combe was determined to rectify the problems on the farm.

The river floodplain is buffered by grass, so soil mainly enters the river via the ford crossing, coming off the fields / track ways and being washed down the roads (Photo 1).

The Solutions

The farm has a Countryside Stewardship Agreement, and entered in to ELS in 2006. The Soil Management Plan was chosen as one of the options under ELS, and was prepared by a local agronomy company, Chemspec. Upon the launch of CSF, Mr Combe invited myself, the CSFO, with the agronomist to come and look at the plan, and ensure that is was up to Catchment Sensitive Farming standards. From the visit it was apparent that Mr Combe intended to no longer grow potatoes or any other crops that require stone separation, or have outdoor pigs or late drilled autumn crops on the high risk fields. Other management planned to avoid soil erosion included only having outdoor pigs on the flatter parts of sloping fields, creating rough seedbeds, improving soil structure by incorporating muck and straw, maintaining hedging, establishing



Tussocky buffer strips around a field of sugar beet

ELS buffer strips (Photo 2), and locating grass set aside on high risk areas. All of these management options are effective in reducing soil erosion and runoff in to the Glaven.

Due to the possible loss of set aside payments however, it was felt by the CSFO and by the farmer that a more permanent solution was required to ensure that the high risk areas stay in grass, and are no longer cultivated. It was therefore decided, with the Natural England Countryside Stewardship adviser, the farmer, agronomist and CSFO that certain high risk areas should be put in to a grassland option as an amendment to his Countryside Stewardship Scheme agreement. With the support of the CSFO, this amendment was accepted, therefore ensuring longer term protection for the Glaven.

Once his CSS Agreement expires, Mr Combe intends to apply for HLS, putting these high risk areas in to a resource protection option.

Mr Combe also has a £10,000 CSF Capital Grant, to resurface some of his track ways which are currently un surfaced and erode in to the river. This is high priority under the targeting statement. The pig farmer who rents land on the Estate is also receiving a visit from CSF, to look at best practice management to avoid soil erosion and run off.

Conclusion

By learning from past experiences, Mr Combe has rectified soil erosion issues on his farm. This has been achieved through partnership between the agronomist, the Natural England Adviser, the tenant pig farmer, the potato contractor and the CSFO. CSF aims have been achieved without compromising the profitability of the farm, as the farmer is still able to grow high revenue crops including potatoes and outdoor pigs on the lower risk land. Mr Combe is now an active member of the Catchment Sensitive Farming Local Liaison Group for the North Norfolk Rivers, advising on the progress of the CSF project in the area.

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Catchment Sensitive Farming (CSF) is delivered in partnership by Natural England, the Environment Agency and Defra.

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