



# A clear solution for farmers

CATCHMENT SENSITIVE FARMING

## Tackling diffuse pollution on all fronts on the River Wyre

Manor House Farm

### River Wyre Catchment (11)

CSFO: Richard Rhodes

### Farm Description

Manor House Farm is a 53 hectare farm stocked with a herd of 100 pedigree Holsteins and a few sheep. The farm is mostly grass with 11ha of maize. Some of the land is moderately sloping running down to the River Brock. Manor House Farm is in ELS and is run by Richard and Claire Barber, new entrants into farming in 2007

### Pollution Issues

The River Brock is classified as moderate in the Water Framework Directive River Basin Management Plan, the main issue being excessive phosphorus. Phosphorus tends to be associated with soils lost in runoff from agricultural land because it binds very closely to soil particles at a molecular level.

### Pollution Solution

#### Soil Management

The CSF contractor identified run off from the maize fields and recommended installing buffer strips, not only along the field edge next to the river but on banks within the field to reduce runoff post harvest for the 2009 growing season.

There was also evidence of poaching by cattle and the soil management plan identified compaction at 10cm and 25cm. In one particular 4.5 ha field this resulted in areas of standing water at certain times of the year, with impact on grass growth, grazing season and efficiency of nutrient use. Following treatment with a swardlifter standing water is



Poaching close to farm buildings

no longer a problem and initial assessment is that the field will provide grazing for an extra 10 days in the Autumn without causing poaching when compared to other fields on the farm

### Nutrient Management

Soil sampling carried out on the farm identified a number of fields with high and very high phosphorus levels, low pH and low potassium levels. No phosphorus fertiliser has been purchased since the CSF contracted adviser discussed the results with Richard and Claire. Slurry has been targeted to fields with low levels of phosphorus in the soil and the application rate varied according to individual field requirements and based on the slurry analysis. A programme of liming has been initiated – a series of management decisions aimed at maximising nutrient use and reducing the diffuse pollution risk.

Claire comments 'the table in the nutrient management plan showing the nutrient status and pH of our fields colour coded is an excellent management tool. We are aiming to get the table green, in other words, the whole farm at target levels for pH, phosphorus and potassium'



Banking left as grass buffer strip within maize field



Grass buffer strip between River Brock and maize field

### Whole Farm Appraisal

The CSF contractor brought to Richard and Claire's attention the need to replace some of the guttering on the farm buildings to improve clean and dirty water management. The need to address this issue was further strengthened by the slurry analysis;

Richard states 'The dry matter of the slurry was lower than we were expecting and assessment of the situation revealed too much rain water entering the slurry store. By renewing some gutters and diverting the clean water we increased our slurry storage allowing us to spread to maximise nutrient use rather than when the store is full. With a reduced volume to spread we have also reduced our costs'

### Farmer Engagement and Motivation

Claire and Richard first contacted Catchment Sensitive Farming Officer (CSFO) Richard Rhodes as they were not sure what was required to meet the cross compliance requirements for their single farm payment. Richard pointed them in the direction of useful websites and highlighted the need to complete a soil protection review.

When it emerged that the farmers would like to explore the state of their soils more closely Richard Rhodes arranged for them to receive a free soil management plan from an independent contractor. This highlighted a number of soil issues and other management problems. Soil sampling had been previously undertaken on the farm but the methodology used meant the results were of little value. CSF funded soil sampling followed along with a whole farm appraisal and slurry analysis.

Catchment Sensitive Farming Officer (CSFO)

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