



A clear solution for farmers

CATCHMENT SENSITIVE FARMING

Investing in Slurry Storage

River Ribble Catchment

CSFO: Michael Graham

Catchment Sensitive Farming (CSF) is a voluntary initiative offering free, practical advice and training to farmers and land managers on how to reduce diffuse water pollution from agriculture (DWPA), across 77 Priority Catchments in England.

CSF delivers DWPA solutions through advice, which may be from project staff, under contract or by way of the CSF Capital Grant Scheme (CGS). In the Ribble Catchment we have offered £3m to 344 farmers since 2009. The scheme offers a grant of up to £10k, with prioritisation to ensure funding is targeted to achieve maximum environmental benefits in the reduction of pollution to water as part of Water Framework Directive (WFD) objectives.

Background

Aberdeen Farm, near Bolton, is in a Nitrate Vulnerable Zone (NVZ) extending to over 200 hectares and is in part formed from a reinstated open cast coal site. Michael Graham, Catchment Sensitive Farming Officer (CSFO), first visited Aberdeen farm in early 2012, subsequently carrying out soil sampling and completing nutrient management and slurry and manure management plans. The farm has also benefited from the CSF Capital Grant Scheme and introduced the use of PLANET software as a nutrient management planning tool.

When the farm was first visited, its farming operations consisted of 250 dairy cows producing 6-9000 litres, together with following stock. There was also a 100 head beef enterprise and grass and arable operations.

In 2012 livestock were producing slurry in the region of 350m³/month, with a winter slurry storage requirement of 1750m³ and 2000t FYM. In addition, poultry manure was imported as a measure to controlling manufactured manure purchases. With all enterprise slurry inputs, parlour washing and dirty yard water the farm had a total requirement of 3400m³ but only 1700m³ of storage. Something had to be done to ensure compliance with NVZ requirements.



New earth banked lagoon being created

Planning

The farm has rationalised its farming operations to concentrate on livestock production, with a long term goal of 400 milking cows (plus followers) and 150 beef cattle. The arable enterprise is to go. Slurry production is predicted to reach 790m³/month, with a winter slurry requirement of 8200m³ and 2500t FYM. Better targeting of manures, including imported poultry manure is being looked at with the aid of a specialist and, if it proves necessary, excess manures will be exported.

Nutrient benefit

A new earth banked lagoon has been installed and has a storage capacity for over seven months. To comply with the five months' storage for NVZs, the quantity and value of nutrients stored in this five month period comes to:

N value: 10200 kg total N 3600 kg avail N
P value: 4700 kg total P, 2400 kg avail P
K value: 12600 kg total K, 11400 kg avail K
Sulphur: 2800 kg, Magnesium: 2400 kg
Value: £12,500

To cater for these changes the farm has taken free advice from Catchment Sensitive Farming, working through the necessary complexities to meet NVZ, and SSAFO regulations and to produce details to implement an earth banked lagoon.

Taking a long term view, the investment at Aberdeen Farm in the earth banked slurry lagoon makes good management sense. It will also provide better environmental practices to reduce the risk of DWPA and improve application timings to crops. With better timing of manure spreading the risk of nutrient loss is greatly reduced, whilst at the same time enhancing nutrient value made available to crops benefiting from manure applications.

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