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CASE STUDY

Making the most of organic manure

Name: **Chris and Margie Hall**

Region: **Woolrow, Huddersfield**

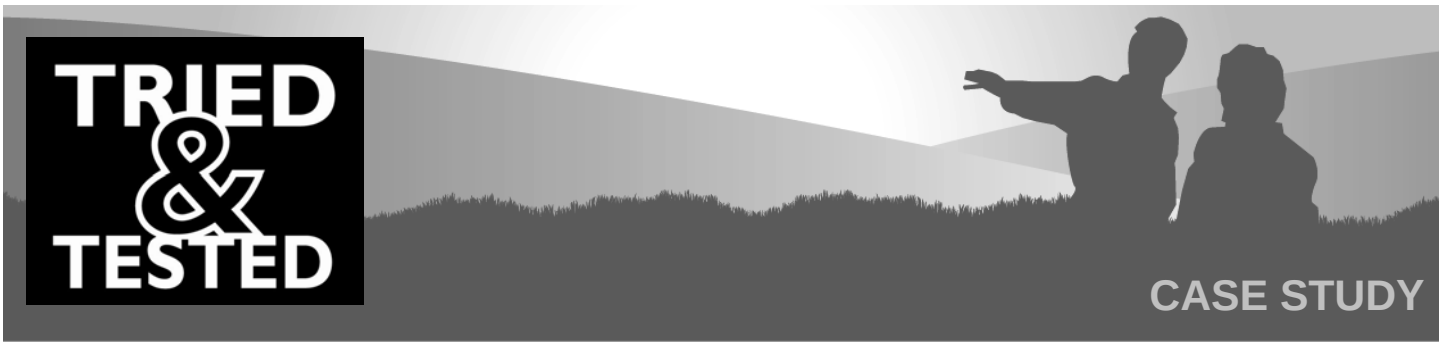
Farm: **Mixed dairy and arable**

Size: **77 hectares + 400 (rent or contract share)**

Background

Woolrow Farm is situated south-east of Huddersfield close to the Emley Moor TV and radio transmitter. The farm is a t 220 meteres above sea level and has an annual rainfall of 1,200 mm. The farm has 430 dairy cows, which yield about 10,000 litres/year, and 300 young stock spend the summer months on the rented land. During the winter, the yearlings and calves are on straw and bulling heifers are on half straw, half slurry. For about 10-12 weeks from November to mid-January, there are 230 ewes grazing on the home farm. Sheep may also graze parts of the rented land.

The home farm consists of 20 hectares of feed wheat and 57 hectares of grass, of which three hectares are permanent pasture. There is also nearly five hectares of broadleaved woodland. The rented land is used to grow grass, wheat, maize, fodder beet and oilseed rape. As part of a major rebuilding programme, new housing and a two million gallon slurry storage lagoon have been built and the silage clamp is being extended.



What does your nutrient management plan consist of?

The farm's policy is to use as little artificial fertiliser as possible by making the most of the slurry and farmyard manure (FYM) generated by the dairy unit. Every field on the home farm can receive slurry via an umbilical system. Slurry is transported several miles to the rented fields by tanker (its value is reduced but the cost of diesel).

The significant nutrient content of the organic manure produced by the dairy unit is taken into account when planning fertiliser applications. To ensure they know how much nitrogen has been applied, the Halls record how much slurry is spread and measure its dry matter (DM) content with a hydrometer before application. Having had a full slurry analysis performed regularly in the past, the Halls are confident that DM content gives them an accurate assessment of nitrogen content.

What other factors affect your nutrient decisions?

We farm in a Nitrate Vulnerable Zone (NVZ) and the farm's rolling annual application is therefore limited to comply with the regulations – 153 m3/ha dairy slurry (2 per cent DM), 43.5 tonnes/ha cattle FYM and 33 tonnes/ha of digested sewage sludge (7.4 kgN/tonne fresh weight). To obtain greater efficiency from the nitrogen in their slurry, the Halls are considering band spreading or shallow injection as this can reduce ammonia losses by up to a third. More spreading days are also allowed because herbage contamination is less.

What are the benefits?

There are significant cost savings at Wooler Farm from using a nutrient planning tool which considers previous copping regimes and the nutrient contribution made by organic manures. The Halls buy only limited amounts of manufactured fertiliser, relying instead on the nutrients in their applied organic manures (valued at over £40,000 at March 2008 prices). Purchased nitrogen represents only about a third of the total value of fertiliser application – much less than the industry average. The new slurry lagoon will enable the Halls to meet the extended storage period proposed in the new NVZ Action Programme and gives them the flexibility to spread slurry in the spring when nitrogen is used more efficiently.

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