

## Woodland planting for water quality...



Targeted woodland creation on farmland can help protect soils, capture diffuse pollution and mitigate flood risk, while also helping to support agricultural production. The Woodland Trust have been working with farmers in river catchments across the country to help them reduce their impact on the water environment, while also gaining in other areas such as wood fuel and farm diversification. The Trust has outlined the ways that trees might benefit your farm (see box), while also helping to improve water quality in the Chelmer and Blackwater catchment.

Water pollution is costly for farmers, wildlife and the environment. An estimated 25% of the phosphates and 60% of nitrates in rivers are from agricultural sources, leached from soils or carried in surface water run-off. Research has shown that planting narrow bands of trees along watercourses and on mid-slope and down slope field edges can be effective in increasing water infiltration, slowing runoff and intercepting nutrients and sediment.

Ten neighbouring farmers in Pontbren, mid Wales who collectively farm over 1,000ha have been working together to see these benefits. They came together to improve shelter by tree

planting, in addition to restoring neglected woodland and hedges. When tree planting began, only 1.5% of the land was wooded but 10



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TRUST

### 10 Ways Trees Can Benefit Farms

- 1. Protect valuable topsoils** - Around 2.2 million tonnes of topsoil are eroded each year. Erosion caused by heavy rainfall can be minimised by planting trees across contours or in areas known to be vulnerable, preventing soils being washed away.
- 2. Shelter for crops and pasture** - Shelterbelts can improve yield by reducing water loss by crops and pasture.
- 3. Attract pollinators** - Tree windbreaks provide habitat and shelter for pollinators.
- 4. Protect water quality** - Trees act as nutrient sinks, trapping pollutants and helping stabilise riverbanks.
- 5. Shelter and shade for livestock** - Trees provide protection from heat stress and wind chill, improving animal welfare and supporting production.
- 6. Support local wildlife** - Native trees and woods provide havens for wildlife.
- 7. Reduce heating bills** – Woods can provide a sustainable supply of firewood and avoid the increasing costs of fossil fuels. Two to three hectares of woodland produces enough fuel to heat a typical farmhouse for one year.
- 8. Create an attractive farmscape** - Trees bring colour, structure and natural beauty.
- 9. Income from game and timber** - Practical ways to diversify farm revenue.
- 10. Reduce the carbon footprint of a farming business** - Trees capture and store carbon.

years later this figures is now closer to 5% with no adverse impact on agricultural productivity.

During this time the farmers observed that their tree planting had unexpected benefits in reducing water run-off from improved grassland. A major hydrological research programme has since confirmed that water infiltration increased by 60 within 5m of tree shelter belts, after just three years of planting.

The Woodland Trust is keen to work with farmers and landowners in the River Chelmer and Blackwater catchment, by providing advice and possible grant funding for tree planting. The charity's approach focuses on maximising areas of unproductive land, such as field corners, margins and areas unsuitable for cropping or grazing.



If you are interested in receiving further information about this offer or grant details, then please initially get in touch with Teresa Meadows on 07792 169545, 01268 664403 or e-mail [teresa.meadows@nwl.co.uk](mailto:teresa.meadows@nwl.co.uk).

Further information on the Woodland Trust and its work with farmers can be found here: [www.woodlandtrust.org.uk/plant-trees/on-farms/](http://www.woodlandtrust.org.uk/plant-trees/on-farms/).

## Capital Grant Scheme

The popular Capital Grant Scheme for livestock and arable farmers, which has previously funded new roofed sprayer filling areas linked to biofilters, watercourse fencing, biobeds, rainwater harvesting projects and much more, will be running again this year.



Applications to the scheme this year will open on **1<sup>st</sup> February and close on 31<sup>st</sup> March 2014** (a month earlier than previously). **50% funding up to a maximum of £10,000** will be available again for the same grant items as in previous years.

Only farmers in the target area for the grant scheme will be eligible to apply in 2014, due to a reduced national budget. Further details and information are available on the following website: <http://www.naturalengland.org.uk/ourwork/farming/csf/cgs/>.

I would urge you to **get in touch with Teresa now (07792 169545)** if you are thinking of applying to the scheme this year. We will then be able to talk through the options and details in advance of submitting an application.

The scheme has already benefited water quality and many farms in the Chelmer and Blackwater catchment – is this year your year to make improvements to your farm infrastructure and protect our rivers? I look forward to hearing from you.

## Teresa's Travels...

On a recent trip to New Zealand, in December last year, it was clear to see that water quality is an issue that is as important in the Canterbury Region of New Zealand, as it is in the Chelmer and Blackwater Catchment in Essex. The Canterbury Region on the South Island of New Zealand enjoys a very similar countryside to that of Essex marked by lowland rivers, a moderate annual rainfall of 500-700mm, a large and important agricultural industry, and high pressures on groundwater including over abstraction. Far from representing a pristine countryside, rivers in the Canterbury region suffer from high nitrate levels, E-coli as well as high phosphate and sediment levels. In New Zealand diffuse and point-source pollution from agriculture is considered as a source in the absence of significant industrial inputs and relatively low population pressures.

New Zealand is currently experiencing a boom in dairy farming, thanks to strong market prices and the ability to grow quality grass, often using irrigation. This has meant that many farmers are converting to the dairy industry from sheep, beef and arable sectors - over the 12 years from 2008 to 2020, a further 100,000 hectares are expected to be converted to dairying. However, this large scale conversion along with the existing milk producers, has brought with it challenges for the environment and water quality.

"Dirty dairying" as it has been named, has led to the industry coming together to form a plan to safeguard water quality, whilst allowing for the rapid conversion to dairying. Per hectare, per year, dairy farming is said to release into the environment more than twice the amount of nitrates of sheep or beef farming. The *Sustainable Dairying: Water Accord* is a new agreement, which came into force in August 2013 and succeeds the Clean Streams Accord that was developed in 2003.



Dairy farmers across the country have committed to:

- exclude 90% of dairy cattle from waterways by 31 May 2014 and 100% by 31 May 2017,
- develop riparian planting management plans by 2020,
- improve management of nitrogen and phosphorus losses from dairy farming systems,
- improve water use efficiency in irrigation and,
- adhere to good practice standards for all new dairy farm conversions.

These policies will work towards improving water quality across the country, improve the image of the dairy industry and enable this important sector to continue. Many of these standards echo the conservation and stewardship that we do in our catchment and across the UK. It will be interesting to monitor the improvements made under the Accord and their effect over the coming years.

## What has been found in the rivers of the catchment over the autumn and winter?

**Metaldehyde** – With the reduction in slug activity this autumn and therefore the numbers of pellets applied, the water quality results have been lower this year than in 2012. However, **metaldehyde concentrations on the River Chelmer and its tributaries were above the 0.1ug/l Drinking Water Standard from 16<sup>th</sup> September through to 13<sup>th</sup> November**. Furthermore, levels on the River Pant and Blackwater peaked to a maximum of 2.2ug/l on 29/10/2013 (22 times the EU Drinking Water Standard). As a result of the peaks of metaldehyde in the Rivers Chelmer and Blackwater, the Essex & Suffolk Water abstraction management pilot, details in the Autumn 2013 newsletter, was put into action and water was not pumped to fill Hanningfield Reservoir from our catchment on 4 days, in order to protect the quality of the water in the reservoir.



**Propyzamide and Carbetamide** – both of these active ingredients, typically found in products such as Kerb and Crawler for example, were detected at high concentrations in all the catchment rivers (Wid, Can, Sandon Brook, Roxwell Brook, Ter, Brain, Chelmer, Pant and Blackwater). Please take care when spraying in Spring 2014 to keep our river water at top quality.

## Soil Protection Review Reminder

Have you filled in the last column on the relevant cropping pages in your Soil Protection Review book for 2013?



The Soil Protection Review is an essential part of cross compliance and therefore, noting down the work that you have done this year to mitigate against soil losses from your farm, is an important job to complete.

## Pesticide Application (PA) Training

...for those with expiring Grandfather Rights in 2015 or new starters on the farm who would like to start spraying or slug pelleting.

We are running the following free training sessions in the next few months, with a **£25 subsidy** off the cost of the exam.

<b>Pesticide Applicator Founder</b>	PA1	Wed 12th February	9am – 3pm	Essex YF Barn, Chatham Green, CM3 3LQ
<b>Boom Sprayer</b>	PA2	Tues 18 <sup>th</sup> February	9am – 1pm	Walthambury Farm, CM3 1AY
<b>Slug Pellet Applicator</b>	PA4s	Wed 19th February	9am – 1pm	Sandon Lodge Farm, CM2 7SG
<b>Knapsack Sprayer</b>	PA6	Tues 18 <sup>th</sup> March	9am – 1pm	Walthambury Farm, CM3 1AY

## PLANET Training - Wednesday 26<sup>th</sup> February

The Swan Pub, Rayne, Essex, CM77 6RQ, 9.30am Registration – 3pm

Hot lunch and refreshments provided, BASIS and NRoSO points available.

ALL your nutrient planning, fertiliser recommendations and NVZ records made EASY. Come and try out the free PLANET software (which is also integrated into Gatekeeper) using your own farm details, receive feedback from our trainers and go home with a fully set-up Nutrient Management Plan and records for your business.

To book for the PA training or PLANET event, please ring or text Teresa on 07792 169545 or e-mail: [teresa.meadows@nwl.co.uk](mailto:teresa.meadows@nwl.co.uk).



### Farm Business Update – Tuesday 4<sup>th</sup>

February, Essex YF  
Barn, 9:15am

FREE half day seminar with the latest information on environmental, water and regulatory issues.

Booking is essential:  
email: [east@cla.org.uk](mailto:east@cla.org.uk)  
or telephone 01638 590429

## FREE Farm Visits Available

**Soil Husbandry Visit with Philip Wright – FACT: Did you know that if you have standing surface water 24 hours after rainfall on a crop, you have lost 30% of your yield? Good soil structure and drainage systems should allow all water to go within 24 hours.** If you have areas of standing water on your farm and would like professional advice on the best machinery and cultivations to use, to reduce these losses with a renowned expert on the topic, then sign up for one of these visits from Philip Wright. We have had very positive feedback from visits already completed and have more available for your farm business.

**Fertiliser Spreader Calibrations** – with the next application season approaching, check that your machine is correctly calibrated to save you money.

**Nutrient Management Planning** – NVZ record check, NMAX, application records and manure management plan.

**Pesticide Handling Area Design** – including sprayer handling area, biofilter and biobed design and drawings.

**Water Management Visit** - Have you noticed surface run-off on your farm? You are able to minimise the effect by using a simple simple feature such as sediment trap, swale, pond, in-ditch wetland or an earth bank. This visit provides advice and guidance for selecting the best feature for your particular areas on the farm, which are prone to runoff with detailed guidance for construction.

Look out for the next catchment newsletter: Spring 2014

The Chelmer and Blackwater Catchment Partnership is supported by:

