

An introduction to riparian buffer strips, windbreaks, shelterbelts and using the England Woodland Creation Offer to create a new woodland on your farm

The new England Woodland Creation Offer (EWCO) is a grant that can help you to create new woodland on your farm. In this article, we are going to concentrate on riparian buffer strips, windbreaks and shelterbelts, that might help you to resolve specific issues on your land.

- 1. Riparian buffer strips:** Riparian means along the riverside, so this type of woodland creation is when you plant trees between your farmed land and streams, rivers or lakes. They act as a buffer zone reducing and, in most instances, preventing water that might have agricultural chemicals in it from reaching the river. This helps improve water quality and reduce flood risk in certain areas. Buffer strips can also stabilise riverbanks, improve water conditions for fish and wildlife, and capture carbon dioxide from the air to help tackle climate change, helping you to get your farm closer to net zero.
- 2. Windbreaks or shelterbelts:** Windbreaks and shelterbelts are a common feature on many farms in the UK. Blocks of trees are planted to protect your stock and crops from strong prevailing winds and to reduce soil erosion when the land is bare. A shelterbelt is normally on the upwind edge of a field. However, if you are looking to remove ammonia pollution from the air, they should be downwind from a livestock or poultry shed. They also provide woodfuel for energy production and encourage additional habitats so you'll see more nature around the farm.

Why create buffer strips alongside watercourses on your farm?

There are different types of buffer strips, for example, grass or wild-flowers, hedgerows, or naturally growing shrubs. Over time a grass or wild-flower strip will compact if you drive over it. If you don't manage your hedges they will begin to die back and naturally grown areas by the riverside can often become full of invasive species you don't want on the farm.

However, a permanently fenced and managed piece of woodland between your fields and the stream or river will reduce agricultural run-off by between 70 and 100% depending on how wide it is. After the trees have grown for a few years, they can help stop water at ground level, as well as:

- capture airborne spray drift from agrochemicals;
- capture and use any excess nutrients that might otherwise leach into the soil meaning that the water that goes to feed our aquifers and freshwater lakes is less polluted.

But it's not all about water quality. Woodland buffers on your farm can bring other benefits, they help to:

- stabilise riverbanks and reduce the amount of valuable soil running off your fields;
- provide shade over the river and reduce water temperature for fish and other animals that live in the river;
- capture carbon dioxide from the air to help tackle climate change and help you to get your farm closer to net zero.

Why plant a windbreak or a shelterbelt?

Windbreaks and shelterbelts can be a real asset to your farm if they are in the right place and you use the right tree for the job. They'll help you to:

- increase the moisture in your soil by reducing surface runoff and in the wind shadow they'll reduce the amount of water that evaporates away;
- reduce the amount of topsoil you lose through erosion in storms;
- improve animal welfare by providing greater shelter and shade than existing hedgerows do;
- capture airborne spray from agrochemicals when they have grown taller;
- provide additional habitat so you'll see more nature around the farm;
- capture carbon dioxide from the air to help tackle climate change;
- provide woodfuel for energy production.

If you are interested in creating new shelterbelt or windbreak on your farm, you'll need to think about a few things first.

1. What do you want to achieve from making a new woodland? Set some goals to help with this (for example, are you hoping to improve the water quality around your farm?).
2. Make sure you do some planning so you plant the trees in the right place to either solve your problem or give you the benefit you want.
3. Select the right tree species or group of species that you want to plant. Match your trees with the soils you are planting into to make sure you get the best results.
4. Use a map to clearly identify the planting location for the shelterbelt – make sure that your shelterbelt is in the right place for the job you want it to do (up-wind to provide shelter for stock and downwind to help remove air pollution from ammonia).
5. Order your trees from suppliers that follow best biosecurity practice (for example, those with Plant Healthy certification or similar). [Read more about Plant Healthy Certification.](#)
6. Make the minimum disturbance when you prepare the ground for planting to avoid any further soil erosion.
7. Fence off the planting area so that stock cannot get in and cause damage.
8. Protect the trees from livestock and deer/rabbits/voles using tree shelters.

All woodland requires some degree of maintenance to ensure its successful establishment and that it can perform as a functional woodland.

What to consider if you want to create a woodland riparian buffer strip on your farm

Woods along rivers and streams are not too different from other woodlands, so you'll need to consider points in the section above. However, there are a few extra things to think about. You should make sure that you disconnect any existing field drainage that runs into and under the new woodland area otherwise you won't stop the issues you are trying to resolve. You should also consider the following site conditions:

1. Soil texture – think about whether your soil is compacted, clayey or freely draining. Tree roots can help reduce some compaction – if you have a clayey waterlogged soil make sure your pick trees that like those conditions.
2. Bank and slope gradient - to really slow down water and stop it from reaching the river too quickly you should plant on slopes that have less than a 12% gradient.
3. Existing surface vegetation - don't be tempted to use weed killing chemicals to control existing vegetation near to rivers and streams this is closely controlled by the [Farming Rules for Water](#). You

should cut back or hand pull weeds. Remember there may already be plants you want to keep along the riverbank.

4. How wide should the buffer be? If your buffer isn't wide enough it is unlikely to be able to slow the flow of water and help it to percolate through the soil. The science says that the minimum width for a buffer strip should be 6 metres, above which you'll start to see the benefits. The Forestry Commission's woodland creation grant asks you to go beyond the bare minimum, riparian buffers (in fact all woodland) should be at least 10 metres wide to receive the additional payment available for this activity and to provide the benefits you want it to.

Maintenance of a new woodland

1. Replace any dead or dying trees in the first few years so that you get a good coverage in the woodland.
2. Spot spray and mulch around each tree to reduce competition from weeds and conserve moisture.
3. Plant your woodland in winter when the trees are dormant so that they can establish roots in spring and require less watering in early years.
4. Regularly inspect your new woodland for any evidence of pests and diseases, damage, or deaths.

How can the EWCO support the creation of riparian buffer strips, windbreak and shelterbelts?

There are four types of payment available under EWCO:

- Support for the capital items and activities to establish new woodland, with payments covering 100% of standard costs (the national average).
- Ten years of annual maintenance payments to help establish the young trees once the capital works are complete.
- A contribution towards the actual cost of installing infrastructure to either enable the current and future management of the woodland, or to provide recreational access.
- Optional additional contributions where the location of the woodland and its design will deliver public benefits. You can apply for multiple additional contributions on the same land where the woodland is in the right location and the design will provide multiple public benefits. One of these additional contributions is for Riparian Buffers of £1,600 per hectare, where woodland is along riverbanks to improve water habitat.

How can I apply to EWCO and find out more information?

To apply for a grant under EWCO you will need to follow these steps:

1. [Find out if you are eligible](#) by talking to your [Woodland Creation Officer](#) and decide if you want to apply for a [Woodland Creation Planning Grant](#) to help you design your new woodland.
2. You must [register with Rural Payments](#) to get Single Business Identifier (SBI) and Customer Reference Number (CRN) before you can apply. You will also need to [register your land](#) before the

Forestry Commission can offer you a grant agreement. We recommend you start this process as soon as possible.

3. Make an application using the guidance [on GOV.UK](#). Always check this page to make sure you are working to the latest guidance and application forms.
4. Once your agreement is approved and you have completed the work, [claim for your payment](#).
5. The first five years of annual maintenance payments will be paid automatically. You will then need to claim again for payments in years six to ten.

Additional information:

- [Find out more information on the England Woodland Creation Offer, including how to apply, on GOV.UK.](#)
- [For more information on Shelterbelts and Riparian Buffer Strips, visit GOV.UK.](#)
- [The Soil Association Agroforestry Handbook has lots of useful information to help with the points in this article.](#)