

Batting for nature

A case study on growing willow trees

Catchment Sensitive Farming (CSF) partnership has been working together with farmer Tim Smith since 2017. Tim planted his first Cricket Bat Willow trees 20 years ago - a business solution that suits his farming system on his marginal arable land.

Purpose

Tim Smith farms 276Ha of mainly arable farmland in Worcestershire. The marginal land on the farm is subject to flooding and not as profitable as the better graded arable land. Tim decided to plant Cricket Bat Willow trees on this land to maximise profit margins.

How CSF helped

Initially, Tim decided to plant the willow off his 'own bat' and 'learned as he went along'. When he started to sell the wood he worked in partnership with a cricket bat manufacturer. He found that working in partnership with the manufacturer was rewarding since they were able to provide reliable nursery stock and valuable ongoing advice on stock maintenance.

Through continual conversations over a number of years, CSF advisers helped Tim identify where he could reduce his risks to the environment. They also explained the benefits that willow tree growing would have on the local environment. Encouraged by CSF, Tim applied for funds to support his farm business and the environment via Countryside Stewardship.

Tim also worked with the Forestry Commission on the Forestry Act requirements; such as felling licences and the requirement to carry out an Environmental Impact Assessment for planting over 2Ha of trees.

Layout

The trees are planted at 10m spacing on a grid to maximise the growth of grass, which can then be grazed or cut for forage.



Hay cut in-between the trees

Measures of Success

Cricket Bat Willow if grown to a sufficient standard will achieve a

Tim now has three outputs for his marginal land:

- Cricket Bat Willow
- Grazing or hay cut
- Compost for arable land

premium sale price. A tree may be worth £300 per stem - at 10m spacing that can result in generating 30k per ha. Maturity (depending on good growing conditions) can be from 15-20 years which is a good short-term forestry return.

As only 50% of the tree is used for cricket bat manufacture Tim now chips and composts the tree tops with farm yard manure and uses it as a soil conditioner on his arable land improving organic matter in the soil.

Additionally, Tim rents his land to a local farmer, by offering grazing, to achieve even greater return.



Willow tree stems, each going for £300

Challenges

- Squirrel control and pruning maintenance are required to get a good market value for the product. This does require active management.
- Recent innovation has resulted in bamboo being used for cricket bats that may mean future competition in the market.

Benefits to the local environment

The pollutant targets for Tim's fields are phosphate and sediment. Compared to arable use, Cricket Bat Willow significantly reduces the risk of sediment and phosphate affecting the nearby watercourse.

Riparian planting along rivers is known to reduce the potential harmful effects from climate change - helping to cool rivers. Trees can also increase water infiltration and reduce nutrient loss.

Using the compost for arable land increases organic matter, fertility and the soil structure; benefiting his arable business.

Would you like to know more about what CSF can do for you?

Get in touch with your local team via the <u>Catchment Sensitive Farming page on</u> <u>.gov.uk</u>



Chippings from the trees mixed in with farmyard manure

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