

New Guidance on Cultivation for Upland Woodland Creation Sites

This Briefing Note introduces new guidance for all woodland creation applications to Scottish Forestry (SF): [Cultivation for upland woodland creation sites – Applicant's Guidance](#).

Purpose

SF has been working with a range of stakeholders over the last 3 years to develop soil cultivation guidance for forestry practitioners that reflects the latest scientific advice.

The aim of this new guidance is to support forestry practitioners in making decisions about what cultivation techniques to use for upland productive woodland creation sites. It provides a framework for discussion at the planning stage, to ensure reasoned and appropriate choices for cultivation are made based on site soil type(s), and related characteristics, in the context of long-term management objectives.

Applying this guidance will help ensure that cultivation operations comply with UK Forestry Standard ([UKFS](#)) requirements and guidelines on soils and water.

Key Points

SF does not support the creation of woodland on soils that are considered as deep peat (50cm or greater depth of peat) but does support woodland creation on organo-mineral soils (soils with a peaty phase less than 50cm).

Organo-mineral soils are important stores of soil carbon and are vulnerable to carbon loss through disturbance by cultivation. The guidance takes a precautionary approach, based on the best available evidence. It encourages the use of less intensive methods to limit the loss of soil carbon on organo-mineral soils.

Financial support through the Forestry Grant Scheme ([FGS](#)) will be conditional on compliance with this new guidance.

Background

There are potentially significant environmental risks associated with soil cultivation that need to be managed to ensure that woodland creation complies with the UKFS. Some high impact forestry practices significantly alter site characteristics and are no longer acceptable or consistent with modern sustainable forest management standards.

The Climate Change Bill sets a target date for net-zero emissions of all greenhouse gases by 2045. This has major implications for woodland creation as the "acceptable timeframe" for emissions abatement has been curtailed and there needs to be minimal or no carbon loss from woodland establishment within the next 20 years.

The CO₂ profile of new woodland creation typically follows a predictable trend, with an initial short period of CO₂ emissions from disturbed soil, followed by an increasing rate of CO₂ capture as the young trees grow and mature. Over a 20+ year time period the impact on Net Zero is very positive, but with an initial short period of emissions.

A balance therefore needs to be made between minimising soil disturbance, whilst also ensuring that the young trees have the best chance of establishment and future growth. To support this, the UKFS has two principles:

- Minimise soil disturbance to secure objectives, particularly on organic (peaty) soils; and
- Consider the potential impacts of soil disturbance when planning operations involving cultivation and drainage.

Research Evidence

Forest Research analysis identified that cultivation techniques which create a medium to high level of disturbance (such as shallow ploughing) on soils with an organic layer greater than 10 cm represent a significant risk of soil carbon emissions and may not begin to sequester carbon until after 2045. This research does not account for carbon sequestration by trees, it only considers the loss of soil carbon.

Consultation and Stakeholder Engagement

In September 2019 SF tabled a draft of the cultivation guidance at the Customer Representatives Group¹ (CRG) meeting proposing new limitations on cultivation techniques that create higher levels of soil disturbance.

The final draft of the cultivation guidance was circulated at the CRG meeting in March 2021. This included limiting the use of techniques that create a higher level of soil disturbance. CRG member views were sought on: the rationale and considerations for the guidance; the proposed approach and restrictions on use of some techniques; and the timing of publication.

Implementation Arrangements

Immediate implementation could be disruptive and lead to some reworking of well-advanced proposals, potentially impacting on achievement of the woodland creation target for both 2021 and 2022, therefore **the new applicant's guidance on the cultivation of upland productive woodland creation sites will take effect from 1 October 2021.**

SF will continue to accept FGS applications that include the capital item "Initial Planting with Ploughing" on organo-mineral soils with an organic layer in excess of 10cm, up until 30 September 2021, provided the submitted application has completed the woodland creation due diligence. Incomplete applications submitted by this deadline, or completed applications received after this date, will not be accepted and will be returned to applicants to change their operational plan to remove ploughing as their ground cultivation method, in line with the cultivation guidance, and adjust the application to include the Initial Planting (i.e. without ploughing) capital item.

For FGS applications already submitted and for those that are already approved that contain the Initial Planting with Ploughing capital item, **we will expect all ploughing cultivation operations to be completed by 31 March 2022.**

¹ The [CRG](#) comprises organisations within the forestry sector, related land use and NGO interests.

Applicants who are developing schemes that utilise the "Initial Planting with Ploughing" capital item, or who have this capital item within an agreed contract are advised to discuss the content of this note with their [local Scottish Forestry office](#) as soon as possible.

Review

The guidance will be reviewed against new developments in research relating to soil science, and in particular peat disturbance, as well as in conjunction with any future revisions of the UKFS.

Operational Delivery**National Office****Scottish Forestry****Tel: 0131 370 5250****Email: scottish.forestry@forestry.gov.scot**