

# EXPANSION OF OAK WOODLAND INTO UK UPLAND PASTURES

## WHERE DOES NATURAL ESTABLISHMENT OF NATIVE OAK TYPICALLY OCCUR IN UK UPLANDS?

In the UK uplands oak saplings are typically found establishing on naturally well-drained podzolic soils on pasture slopes dominated by acid grassland (U4 NVC) and bracken communities (U20 NVC). In many of these areas however, poor establishment distances can hamper natural colonisation away from adult trees and even within these areas livestock will require management.

## HOW TO ENCOURAGE NATURAL ESTABLISHMENT OF OAK SAPLINGS?

1. Close to existing adult oak trees [within 20m] the grazing, trampling or cutting of very dense stands of bracken (by cattle grazing or physical cutting) would open up dense and/or competitive vegetation which evidence suggest provide little additional benefit for the natural establishment of youngest [1 – 3 years] oak saplings.
2. Once oak seedlings and saplings have initially colonised into upland pasture – typically after a ‘mast year’, livestock should be excluded [or reduced dramatically] for a period of a minimum of twelve years to protect saplings and encourage the growth of protective unpalatable or thorny vegetation [such as bracken or bramble] which may ward saplings from browsing as they develop.
3. Where protective thorny or unpalatable vegetation such as dense bracken or bramble surround establishing trees and create protective grazing refuges, livestock could if required, be returned for limited wood pasture grazing.

## STRATEGIES FOR UPLAND OAK WOODLAND EXPANSION WHERE NATURAL ESTABLISHMENT IS NOT POSSIBLE

In areas at significant distance [ $>50\text{m}$ ] from adult oak trees, the planting of oak saplings may be required. These should typically form part of mixed native species planting schemes where they are most required, on naturally freely draining soils on pasture slopes which have been over-compacted. However, older [4 – 7 years old] and taller [ $>50\text{cm}$ ] oak saplings could be planted into areas of dense bracken or bramble which may protect saplings from animal livestock and browsing from ponies and deer. This targeted approach to planting could reduce the need for tree guards and/or fencing and significantly improving the cost, social acceptance and environmental sensitivity of expanded upland oak woodlands.

