



Original thinking... applied



Bracken Control Case Studies

Livestock Grazing



This is a summary of the information that has been kindly provided by people with current experience of controlling bracken using hand pulling and whipping in different parts of the UK. It provides some real-world experience to supplement the preliminary guidance about each control method.

The detail is limited by the amount of information available. More case study

information is welcomed to allow us to add to the guidance. Please email details to: **Bracken@naturalengland.org.uk**

Where contributors have given their permission to share the information they provided, this can be accessed via the link at the end of the document.

Highlights

- Cattle and ponies can have a significant impact. Unless grazed at high density, sheep have less effect.
 - Native breed, hill cattle are likely to perform best in terms of production and control of bracken.
 - The use of livestock can work in combination with primary treatment of dense bracken, which reduces its height and density, to provide follow-up control.
 - Through the action of their feet, stock will disturb beds of bracken litter. The litter that is not trampled into the ground will disperse by action of wind or water.
 - Bracken will be controlled in areas selected by cattle for lying up. Their muck will help to improve the nutrient status of the soil.
 - The impact of domestic pigs is likely to be significant in appropriate situations where managed effectively. By turning the soil over, they will search out rhizomes (root system). While this will remove bracken, re-seeding may be necessary to reinstate vegetation cover. If all the vegetation is removed, erosion is an issue.
 - Where historic features are present, pigs are likely to cause damage and their use is inappropriate as a method of bracken control.
 - For stock to interact with bracken, an understorey of fodder vegetation is required to draw stock into the bracken. Alternatively, following regenerative grazing practices, by concentrating cattle in areas for short periods of time, using feed blocks to encourage them into dense bracken and move through and crush the bracken is useful.
 - If supplementary feed is used (which will be necessary to prevent overgrazing of the bracken itself which may cause toxic effects) stock can be drawn to different areas by changing the feeding location. If water bowsers are required, movement of these can also serve to spread the impact of the stock.
-

- If hay is used as a supplementary feed in winter, this can provide a source of seed for new vegetation cover. If the land is designated, as this will be classed as a change in grazing regime or to stock feeding practice, this will require approval or consent from the relevant Nature Conservation or Heritage Body.
- If present, archaeological features may require protection from livestock.
- Scattered trees amongst bracken can provide a focal point for stock and result in bracken removal from the area around the trees.
- Permanent or temporary fencing may be required to control the movement of stock. Virtual fencing systems offer an alternative means of control.

Reducing risks

- Regular movement of stock, perhaps several times each day, will reduce the risk of damage to the vegetation and soil structure through poaching and increase the distribution of muck.
 - Movement also gives stock access to fresh areas to graze on, which they might not move to if left to their own devices. This helps to maintain their condition and reduce the reliance on supplementary feed.
 - The risk of poisoning from direct ingestion of bracken can be reduced by ensuring the provision of an adequate supply of alternative food, by moving the stock regularly onto fresh grazing and/or use of supplementary feed.
 - Bracken beds are an ideal habitat for ticks, as are other rural/ remote habitat types. Tick-hardy stock should be used that have an acquired or in-bred immunity. Further protection against ticks may be required.
-

Case Studies

Historic England Throwleigh Common Devon

Strimming and native breed cattle are being used to control bracken on archaeological features. This is achieved using localised supplementary feeding and herding of the cattle to the relevant areas.

RSPB Reserves

Most forms of mechanical management are followed up by the use of livestock, especially cattle.

This further disturbs the ground and breaks up rhizomes, reducing vigour in the following year.

To encourage livestock into bracken stands, rides are cut at Lake Vyrnwy, and hay is fed at Haweswater.

At Arne in Dorset, Mangalitsa pigs are used to provide some bracken control especially on thin sandy soils with lighter bracken cover. At Geltsdale in Cumbria, a NoFence virtual grazing system with collars is used to manage livestock on a mosaic of upland habitats.

Pigs in Bracken Dunlossit Estate Isle of Islay

Pigs have been used on a variety of land where they have generally favoured bracken over other vegetation, successfully clearing or significantly diminishing bracken cover, which has allowed other vegetation to regenerate. Land cover where this has been trialled include: recently coppiced hazel woodland (with bracken encroachment); a field coming out of rape, due to be reseeded with unploughable bracken slopes; heather moorland interspersed with bracken and a large coastal woodland with extensive bracken in the clearings. Report from the Dunlossit Estate, Isle of Islay (Chloe Randall, 2006).

Case Studies

Wharton Crag Nature Reserve Lancashire

The site comprises 80ha of limestone pavement, grassland, scrub, woodland and bracken, much of which is an SSSI for its flowering plants, ferns and butterflies.

Annual cutting (in July, rather than May, for the best effect) and litter removal was supplemented with cattle trampling/ grazing for several weeks in summer and winter at a stocking rate of 1 cow per 4 ha (0.25lu/ha) using cattle that can tolerate poor quality forage in this instance North Devon and Redpoll.

Older cattle are likely to be more suited than young bullocks as they can cope better with lower quality forage and do not need to put on weight as rapidly as young bullocks.

The greatest beneficial impact was seen where the cattle were lying-up (bracken was preferred for this) and around water bousers, where there was concentrated disturbance of the bracken. After 5 years, there was good mixed grassland with a range of flora, where previously there was dense bracken.

Data source: Newton J & Grayson W. Bracken management on Warton Crag Nature Reserve (1999). Proceedings of the IV International Bracken Conference, Manchester, pp 194-195.

Further Information

Click on the link(s) below for the original source of information and further details.

- [Historic England, Throwleigh Common, Devon Case Study Link](#)
 - [Pigs in Bracken, Dunlossit Estate, Isle of Islay Case Study Link](#)
-