Supporting guidance for Bracken Management

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Bracken is a native plant with conservation benefits and is a natural component of many woodlands and open-ground habitats. Stands of bracken can provide a valuable habitat for wildlife, especially where the bracken canopy is relatively open.

However, bracken is a successful coloniser and can spread into grassland, moorland and heathland. When bracken encroaches on these habitats, it needs to be controlled.

Why control bracken?

This option aims to prevent the loss of heathland, moorland and grassland of conservation value, and to restore, enhance or maintain their open nature. Restoring a more open structure to the existing vegetation will encourage characteristic native plants to thrive and provide breeding and feeding grounds for associated wildlife. Priority species that may benefit include juniper, pearl-bordered fritillary, northern brown argus, slender scotch burnet, black grouse and skylark.

How best to control bracken on your land

When considering bracken control, you need to think carefully why you are doing it and what you would like to achieve. Consider whether control is required and, if so, whether the objective is to manage existing populations, or to eradicate them. Identify any sensitive areas and non-target species that might be adversely affected by bracken management.

Bracken is a native plant, and you will not always want to eradicate it; sometimes you will want to maintain a patchy cover to benefit species associated with bracken. Consider what vegetation will replace bracken, and how to manage this vegetation recovery in the longer term. If you decide to take no action, monitor the spread of bracken.

Your control programme should consist of an initial treatment and repeated follow-up treatments. Control measures can include manual (hand cutting, hand pulling), mechanical (cutting / rolling) and / or chemical control, as well as the use of livestock.

A control programme should cover a five-year period and several different control measures might be required. You need to consider the slope and accessibility of the site when choosing a control treatment. The use of ground vehicles will not be appropriate in some areas due to steep slopes and difficult access.

Cutting

Cut bracken at least twice in the first year (in May / June and again in July / August) and at least once every year for the next five years, for control to be effective.

Rolling

Rolling crushes young bracken fronds that emerge in the spring and weakens the plant by bruising the stems and causing them to bleed. Rolling should be carried out again later on in summer, and should be repeated over a number of years to be effective.

Where stands are particularly dense and vigorous, you may need to cut / flail / roll three times per year. Where ground-nesting birds are present, mechanical control should be avoided during May–July.

Herbicide application

This can be done with equipment such as a tractor-mounted boom, handheld lance fitted to a vehicle, or handheld sprayer or weed wiper.

Aerial spraying

Aerial spraying is often suitable for large areas of dense bracken that are not easily accessible to a ground vehicle. Asulam, the only selective herbicide to control bracken which can be applied from the air, has been taken off the market. An emergency authorisation for 120 days was given in 2013 and 2014. The Bracken Control Group provides regular updates on developments in bracken control and emergency authorisations.

Overwinter grazing

After primary treatment, livestock can be used to help break up the bracken litter and expose the underground rhizomes to frost damage through poaching. Livestock grazing can be used as part of a non-chemical control strategy, complementing cutting or rolling over spring / summer.

Pigs have been used as bracken grazers successfully in the past, with results showing that they specifically target bracken over other species, uprooting the rhizomes which are then desiccated and die.

There is a risk of bracken poisoning and proliferation of ticks inbracken stands can adversely affect animal welfare so you need to check animals regularly. You will also need to be careful that livestock grazing does not lead to soil erosion.

Hand pulling

Hand pulling is rarely used as part of a bracken control strategy, because it is labour intensive. Nevertheless, hand pulling can be an effective control strategy for smaller patches of bracken and should not be completely discounted.

Do you require consent?

If you are proposing to use chemical control, you may need to consult the appropriate bodies. These include the Scottish Environment Protection Agency, Scottish Natural Heritage, your local water authority, and your local authority environmental services. Depending on the circumstances, this may take place as part of the Scottish Rural Development Programme application process, or as a separate application. It is your responsibility to determine who you legally need to contact.

If spraying within one metre of the top of the bank of a watercourse, you, or your spray operator must have Scottish Environment Protection Agency authorisation.

For aerial spraying, your spray operator must obtain a permit from the Chemicals Regulation Directorate before spraying takes place. Scottish Water and the relevant local authority will be consulted when you apply for a permit.

If you plan to use chemicals, it is essential that you confirm which products are approved for bracken control. You must adhere to the statutory conditions of use on the product label.

After the initial control work

You may burn bracken litter where deep bracken litter prevents recovery of other vegetation. Do so as a follow-up to aid rehabilitation of a site after you have removed a dense stand of bracken. Measures to establish desired vegetation should be put in place to prevent colonisation by ruderal species, like rosebay willowherb. Any burning you carry out should follow the muirburn code.

Bracken is persistent and invasive, so you need to monitor its growth to prevent re-infestation. Land use will affect the likelihood of bracken becoming dominant again in the future. Future grazing should be carefully managed in order to reduce the risk of bracken regaining dominance.

You can apply for follow-up treatment as part of your application. Where follow-up treatment(s) are required, you can apply for follow-up work for the same area – the reduction in payment accounts for the fact it is a follow-up treatment.

How to plan the work

Describe your programme of treatment and follow-up actions (where applicable), in a Bracken Management Plan. A template for a bracken management plan is available

 Bracken Control Plan (MS Word, Size: 136.4 kB)
doc_external_url: https://www.ruralpayments.org/media/resources/Bracken-Control-Plan-AECS-April-2015.docx [Plan template]

Your plan should include a 1:10,000 map (or 1:2,500) and describe the following:

- the habitat(s) of conservation value which will benefit from bracken management – stated in hectares and shown on your map
- the area of bracken to be actively managed - stated in hectares and shown on your map
- the extent of bracken – stated in hectares and shown on your map
- the density of the bracken cover – see descriptions in published guidance (see 'Further information' section)
- the type of management you propose across the area (eradication or control or no action) and the treatments you propose to use to achieve this, including any follow-up action. You should choose an appropriate method of control in accordance with published guidance
- where you propose to eradicate or control bracken you should describe the type of vegetation you expect will replace it
- any sensitive areas / buffer zones where there should be no bracken control should be shown on your map
- how you propose to monitor the success of your control work

Your plan should identify the locations of sensitive areas and appropriate buffer zones, including the following:

- where plant or animal species of conservation value are present and are likely to be damaged by the control method, e.g. ferns damaged by spraying, or nesting birds damaged by mechanical control
- gullies or steep slopes where regeneration of more desirable vegetation will be difficult or impossible to achieve and soil erosion may result
- close to ponds, lochs or watercourses, if chemical control is proposed
- where there is a well-developed woodland flora, e.g. bluebells, under the bracken canopy
- archaeological features which might be damaged by mechanical control

Further information

- RSPB – Bracken Management in the Uplands – retrieved September 2014
- Scottish Environment Protection Agency – Bracken Control: A Guide to Best Practice – 2008
- Scottish Natural Heritage – Integrated Pest Management Protocol for the Control of Bracken – Integrated Pest Management in Nature Conservation Handbook, prepared by ADAS for SNH – 2014
- Muirburn code