

## The Muirburn Code 2017 - Supplementary Information 8

### Muirburn for Grazing Management

#### General

Burning and cutting can be used to improve grazing for livestock and deer, in both heather moorland and grassland, by removing old or dead growth, encouraging new growth, creating patches of different age and structure, and maintaining the open nature of grazing land.

Burning and cutting can also be used for more specific objectives, such as providing an “early bite” in some grassland, helping to distribute grazing more widely, to encourage movement through areas previously avoided by livestock, or to attract deer to specific areas.

Burning for grazing management is often carried out less intensively than grouse moor management with the result that larger areas, containing a variety of habitat types, can be burnt at the same time. This means that areas that should be fire-free might be burnt along with those that it is intended to burn. There is a high risk of large fires getting out of control and spreading to sensitive habitats or to neighbours’ property. A burning plan should identify which habitats are to be burnt and which are to be avoided, and ensure that sufficient personnel are available to manage the fire safely.

#### Muirburn for Grazing in Heather Moorland

In heather moorland, the aim should be to create a mix of patches of different age and structure of heather, in order to provide a balance of nutritious feeding, particularly in winter when much other forage is unavailable. This also encourages grazing pressure to be well distributed across the land, reduces local overgrazing, and provides greater biodiversity benefit than when a large area is burnt at one time.

The frequency of burning should be based on the rate of growth of heather (also see Additional Information No. 5.3 – *Planning for Burning*), but heather that is grazed will take longer to reach the height at which burning is appropriate, and therefore the period between fires should be longer.

Heather can support grazing at an appropriate level throughout the year, but it can be damaged by winter grazing that is too heavy, particularly when this is combined with burning. Burning and cutting should not be used as a way to eliminate heather and replace it with grasses, either where heather is dominant or where there is a grass-heather mixture, as tussock grasses of low forage value, which provide no winter feeding, often dominate the resulting vegetation. In addition, Scotland has an international responsibility to retain heather habitats, which have a high conservation value.

Not all heather-dominated vegetation is suitable for burning – see Section 7.1 of the Muirburn Code *Management of Peatland* and Additional Information No. 7.1 – *Muirburn and Peatland*.

## **Muirburn for Grazing in Grassland**

Grassland that is already almost exclusively dominated by tussocks of Purple moor-grass *Molinia caerulea* (sometimes known as flying bent), with few other species, is sometimes burnt to provide an “early bite”. Frequent burning will further increase the dominance of this tussocky grass and reduce the diversity of other species, which cannot recover as rapidly from fire. Moderately frequent burning (4 to 10 years, depending on growth) will generally maintain the existing diversity, but care is required to ensure that other nearby habitats, which cannot tolerate such frequent burning, are not burnt as well.

Fires in grassland areas move quickly and can be very intense; they readily lift burning material into the air, which may start fires elsewhere (spotting). Therefore, special care is required when burning such areas.

Grass is a fine fuel that dries out quickly, and it is easy for firebreaks to be breached by creeping fire, heat transfer from the head fire or spotting from burning embers.

It is essential to know how a fire will be stopped before it is lit, and therefore an adequate firebreak must be identified or prepared with a back-up.

Fire beaters with conveyor belting heads are better than wire mesh at extinguishing grass fires, but beaters are often not effective, especially amongst tussocks. Water is often required to put grass fires out, but a powerful, commercial leaf blower can be effective; smaller machines will lack the power to be effective (for more information about blowers, see the Equipment section of Supplementary Information 5 - *Planning for Burning*).

Methods to reduce the intensity and speed of a grass fire should be considered and these include an appropriate ignition pattern, and the use of back burning and/or a flanking fire.