

Conclusions:

- Spring burning is not suitable for maintaining diversity of grassland dependent species.
- Spring burning is not a viable long-term management tool for species-rich grasslands. But it might still be a useful alternative for a single year, e.g. when conventional management has failed in the previous year.
- Burning might be valuable for removing litter layer and preventing spread of shrubs.

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Is spring burning a viable management tool for species-rich grasslands?

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Background:

Semi-natural grasslands are among the most diverse habitats in Europe and also one of the most threatened.

In Sweden, management of grasslands has decreased mainly due to economic reasons and areas of grasslands have been abandoned, resulting in their conversion to forests through natural succession and tree planting. There is therefore the need for a cheap, labour - efficient means to managing grasslands that can be an alternative to the traditional management methods of mowing and grazing.

Aim: Examine if spring burning is as good as mowing and grazing in the management of semi-natural grasslands.

Methods: Data from 11 sites collected in 1973, 1980 and 1986 in southern Sweden was collated. The sites comprise a long -term field experiment established in the 1970s to compare different management methods of semi-natural grasslands vegetation. The occurrence of grassland plants indicating good management, excess nitrogen and lack of management were used to evaluate the effects of burning, mowing and grazing.

Results:

- Indicators of good management were less abundant in the burned plots compared to the mowed and grazed plots.
- Proportions of excess nitrogen indicators did not differ between grazed and mowed plots.
- Lack of management indicators were more common in burned plots than in the mowed and grazed plots.

