

Biodiversity-promoting measures in grassland



Insect-friendly mowing

Description of the measure

In addition to fertilisation, cutting frequency and pesticide use, mowing technique is crucial for biodiversity in meadows and other grassland areas. The extent to which mowing is insect-friendly is determined by various factors. Taking each factor into account can already reduce the risk of injury to insects. To achieve the greatest possible reduction in insect losses, as many factors of this measure as possible should be implemented.

Mowing technique

Mowing with a bar mower (finger bar or double blade technology) is demonstrably much gentler for insects and other animals than a roundabout mower. This is the second choice after the cutter bar, as the rotating blades of a roundabout mower cause more animal damage than cutter bars at high speed.

The most animal-harmful technique is mulching, which should be avoided at all costs if possible, as the cuttings are chopped up and insects have no way to escape. A mower conditioner should also not be used, as this will crush the few insects that have survived the mulching.

Mowing height

A high cut at a height of at least 8 cm is recommended.

Mowing speed

The mowing speed should be as low as possible. This increases the chances that insects and other animals can escape in time. For technical reasons, the speed of a cutter bar mower is lower than that of a roundabout mower (roundabout mower: max. speed 10 - 15 km/h, otherwise there is a strong suction effect for insects).

Time of day mowing

Minimising insect loss through mowing is also determined by the time of mowing during the day.

Following recommendation:

- Early & late summer: use noon hours in sunny weather from 12 - 2 p.m.
- Midsummer: in sunny weather from 11 a.m. - 4 p.m.

Reason: Mowing is more insect-friendly when insects are particularly mobile due to the temperature and can thus flee more easily. As an alternative strategy (especially in flower-rich stands), mowing should be carried out when the sky is overcast and temperatures are cool, because then fewer flower-visiting insects are around.

Mowing direction

Mowing should be done from the inside out to allow insects (and larger animals) to escape during mowing.

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Positive effects

A high cut spares the soil life and numerous leaf rosettes (especially of herbs), which improves their regenerative capacity. The individual factors of insect-friendly mowing also benefit a variety of other animals such as birds (e.g. meadow nesting birds), amphibians or small mammals.

Further recommendations

Mowing in sections/leaving parts standing (mosaic mowing) → see measure old grass strips

Sources

https://www.naturlichbayern.de/fileadmin/user_upload/Praxisempfehlungen/Praxisempfehlungen_Insektenschonende_Mahd.pdf

Rhenish Cultural Landscape Foundation (2020): AgrarNatur guidebook: https://www.dbu.de/OPAC/ab/DBU-Abschlussbericht-AZ-34951_01-Hauptbericht.pdf

Coordinator

Further partners

