FarmBioNet

Farmer-focused biodiversity and agricultural knowledge network

Restoring and managing wet meadows: Practical steps to protect biodiversity, store carbon, and improve water retention

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Lower Austria, Waldviertel and other areas with wet meadow habitat

Photo credit: Hermann Hahn

Wet to moist species-rich meadows developed through centuries of extensive use are valuable habitats, linking terrestrial and aquatic ecosystems. However, many wet meadows are being abandoned, drained, or intensively managed, leading to the loss of characteristic biodiversity. This is mainly a result of low economic profitability, loss of small-scale fields, declining demand for green fodder, labour-intensive management, and challenges in using the cut biomass.

To conserve or restore wet meadows, drainage systems should be removed to allow the water table to rise. Management should be limited to one or two cuts per year. Regular mowing is essential to prevent shrub encroachment and can also be carried out in winter to protect soils. All cut material must be removed.

Wet meadows are biodiversity hotspots, providing habitat for many specialised plant and animal species. They store large amounts of carbon in the soil and contribute to climate protection. Drainage causes oxidation of organic matter, releasing stored carbon as carbon dioxide. Wet meadows retain water and release it slowly, reducing flooding risk and easing pressure on streams and rivers. Additionally, they are an important part of traditional cultural landscapes.

Practical recommendations

Mowing should start no earlier than mid-June or July, in line with conservation regulations. Lightweight bar mowers with wide tires, dual wheels, or spiked wheels are recommended, as they minimise soil compaction and protect insects. Fertilisation and nutrient input from adjacent land must be avoided, as this promotes competitive grasses and displaces light-demanding herbs. Grazing is possible but may cause trampling damage, localised nutrient inputs and parasite risk to livestock.

Further Information on farmbionet.eu

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