



AGROECOLOGY FOR WEEDS

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AGROECOLOGICAL WEED MANAGEMENT REPOSITORY

The Agroecological Weed Management (AWM) Repository (<https://www.goodhorizon.eu/platform/awm-practices/>)

is a virtual space where you can freely and openly find information and educational material on current and agroecological weed management practices in the European Union. You can browse and learn about several weed management practices and crops.

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MOWING

DESCRIPTION & BENEFITS

Mowing, as a mechanical weed control practice, involves the regular cutting of weed vegetation using specialized equipment such as mowers to:

- **control weeds across various agricultural settings** including fields, pastures, parks, and roadsides
- **disrupt and break the reproductive cycle of weeds** preventing them from producing seeds and spreading further
- **reduce the overall density of weed populations**, thereby minimizing competition with crops for resources
- **manage weeds in small farms** in which herbicides are not allowed and other mechanical means are not effective



TIPS

STRENGTHS

- Prevention of seed set and mitigation of crop-weed competition by cutting weeds at critical growth stages
- Maintenance of soil structure and prevention of soil erosion by leaving crop residues on the soil surface
- Cost-effective method in small land parcels and areas with limited access (e.g., hills with high slope)

WEAKNESSES

- Repeated applications to ensure effective weed control, especially in fast-growing, noxious and perennial weed species
- Labor-intensive in large-scale agricultural operations or on difficult terrain
- Potential failures against perennial weeds, which can regrow from root reserves after mowing

OPPORTUNITIES

- Potential harvest of forage or biomass production, adding economic value
- Optimized weed management, reducing the risk of seed dispersal and the replenishment of soil seed bank
- Effective against sequential waves of germinated seeds with repeated applications, allowing combinations with other weed management practices

THREATS

- Risk of failures if mowing is not performed at the correct weed growth stage or frequency
- Potential crop yield reduction (in annual crops) if mowing interferes with crop growth
- Susceptibility to weather conditions, such as heavy rain or drought, which can affect mowing planning and effectiveness

- **schedule regular mowing applications** throughout the growing season, targeting weed populations before these flower and disperse seeds
- **adjust the frequency and timing of mowing applications** according to the present weed species, growth rates, environmental conditions, available machinery, cost, and risks of regrowth
- **adjust mowing equipment** to achieve an optimal cutting height that effectively targets weeds and minimizes the risk of regrowth and/or damage to crops
- **remove or ensure the proper segmentation of mowed weed biomass** to prevent unintentionally dispersal of weed seeds
- **integrate mowing into an integrated set of agroecological weed management strategies** to manipulate the weed flora and maintain it at manageable levels
- **try to equip machinery that does not depend on fossil fuels and derivatives**

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