



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.

The **Agroecological Weed Management (AWM) Toolbox**, our Decision Support System that supports the user to reduce the use of synthetic herbicides and/or improve weed management by combining different Agroecological Weed Management (AWM) strategies with cover crops is LIVE!

<https://dss.goodhorizon.eu/>



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COVER CROPS

DESCRIPTION & BENEFITS

Cover crops are plant species grown between cash crop cycles or as companion crops in permanent plantations to:

- **improve soil health** by covering and protecting the soil, often during periods when the land would otherwise be left fallow
- **reduce the weed pressure** due to their ability to compete with weeds for resources. Some cover crops release allelopathic compounds that inhibit weed growth, providing natural weed suppression
- **enhance overall agroecosystem resilience**
- **provide an alternative income** resource for farmers

STRENGTHS



- Enhancement of soil health (e.g., reduction of erosion, increase of organic matter)
- Suppression of weed growth due to competition for resources
- Increase of biodiversity as they provide habitat for beneficial insects and microorganisms

OPPORTUNITIES



- Potential reduction of chemical inputs (e.g., pesticides, fertilizers)
- Alternative income source (e.g., seed production, biomass harvest, livestock grazing)
- Integration in long-term crop rotation schemes to improve productivity, sustainability and resilience to biotic and abiotic stresses

WEAKNESSES



- Potential high costs for initial investment in seeds, special equipment, and operations
- Potential competition with cash crops for resources, leading to yield/quality reductions
- Varying effectiveness depending on species selection, sowing time, and local soil and environmental conditions

THREATS



- Primary or secondary host of pests and microbes affecting subsequent cash crops
- Lack of knowledge on proper cover crop selection and management techniques
- Adaptation of weeds to cover crop management practices, thus, making them more noxious to manage



TIPS

- **select appropriate cover crop species** and sow them strategically within crop rotations or as intercrops. Pay attention to climate, soil type, and desired weed suppression characteristics. Seek advice from local agricultural advisors and/or discuss with other farmers which are the best species to sow
- **ensure the timely termination of the cover crops with non-chemical means** (e.g., using animals, by mechanical means, spraying bio-herbicides) before cash crop sowing
- **decide the appropriate seeding rates according to the weed infestations** in your field to ensure optimal weed management
- **monitor regularly the cover crop growth and weed populations** to adjust management strategies as needed

LIABILITY DISCLAIMER

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