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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GRAZING

DESCRIPTION & BENEFITS

Agro-pastoralism is an old farming system that has fallen into disuse in developed countries, with the intensification and specialization of crop production. The promotion of innovative crop-livestock systems, with greater emphasis on agroecology, has led to a reconsideration of this approach, for the mutual benefits that can be generated between livestock and cash crops. Grazing is used to:

- **effectively manage weeds in permanent plantations**
- **selectively feed animals with specific weeds in fenced areas**
- **provide an alternative feeding source for animals,** thus, reducing feeding costs
- **reduce the reliance on both herbicides and mechanical control** as animals can graze several times in the growing season managing sequential waves of germinated weed seeds
- **terminate cover crops** instead of using mechanical means, bioherbicides, synthetic herbicides
- **increase carbon sequestration and ecosystem services** in the farm

STRENGTHS

- Effective weed management by grazing on unwanted vegetation
- Promotion of nutrient cycling through animals' activities
- Reduction of pest populations due to consumption of pests and disruption of their habitat

WEAKNESSES

- Potential selective feeding on certain weeds, leaving others untouched and allowing those weeds to dominate
- Requires appropriate fencing, watering systems, and infrastructure
- Seasonal availability of forage and weather conditions, restricting its use to certain times or growing seasons of the year

OPPORTUNITIES

- Additional revenue streams for farmers through meat, milk, or fiber production
- Minimization of soil erosion and promotion of vegetation cover through controlled grazing
- Support of ecosystem services (e.g., pollination) due to the thrive of native plant species

THREATS

- Overgrazing, causing soil compaction, erosion, and degradation of pasture quality
- Competition and conflicts among land-owners for the land use (e.g., grasslands-cropland)
- Potential spread of diseases, parasites, and propagules of invasive weeds

TIPS

- **select livestock species and breeds** that are well-suited for grazing and capable of effectively managing weed populations
- **implement rotational grazing practices** to ensure that animals graze evenly across the pasture or field, avoiding overgrazing
- **use livestock on annual crops as a means of terminating and feeding with cover crops** before cash crops' cultivation
- **use livestock on perennial crops as a direct weed management practice** (ideal for orchards and vineyards when you ensure minimum crop damage)
- **care about animals' welfare** (shade, protection against wind and rain, etc.)
- **design strategically the grazing periods** to coincide with the weed growth stages
- **regularly monitor the effectiveness of grazing** as a weed management strategy and adjust grazing intensity and timing as needed
- **combine grazing with other agroecological weed management practices** to increase effectiveness and reduce costs

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