



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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## HARVEST WEED SEED CONTROL

### DESCRIPTION & BENEFITS

Harvest Weed Seed Control (HWSC) is a preventive weed management practice that "harvests" weed seeds during crop harvest to:

- **prevent the replenishment of soil seedbank** with a new generation of weed seeds, which will lead to the decline in their population in the long-term
- **Capture, manage and/or destroy the weed seeds** at crop harvest (e.g., with mills, windrow burning, chaff carts) , thus, reducing future weed infestations

## STRENGTHS



- Immediate reduction of produced seeds (important for herbicide-resistant weeds) and their return to soil seedbank
- Contribution to a long-term management of noxious weeds in agricultural systems
- HWSC can be integrated in existing farming systems with slight modifications and training in operation

## OPPORTUNITIES



- Ongoing research (especially in Australia) to analyze the long-term benefits of this practice
- Mitigation of the impact of herbicide-resistant weed biotypes
- Combination with other weed management practices aimed at preventing seed production to reduce the seed bank in the soil

## WEAKNESSES



- Low seed retention of weeds at crop harvest due to different crop-weed maturity
- Lack of experience in HWSC in Europe, making it necessary to train operators, farmers, advisors and researchers
- Varying effectiveness depending on weeds and crop, as it demands high levels of seed retention at harvest and similar growing cycles

## THREATS



- Adverse weather conditions at harvest may affect the efficacy of this practice
- Adoption challenges among farmers and harvesters, as it is a new method
- Operational difficulties and equipment availability at peak harvest season



## TIPS

- **choose the appropriate equipment and HWSC method** as there are several which may fit or not to your crop and farming system
- **keep up-to-date** as research and technological advancements are ongoing
- **find your technology provider and consultant** and work with them to test the practice and get trained before large-scale operation
- **combine with other weed management practices**, in particular those targeting weeds in their early stages of growth, in order to effectively reduce weed pressure and seed production, preventing the replenishment of the soil seed bank

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