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Deliverable 1.5: AWM repository (version 1)

Grant Agreement number: 101083589
Start date of the project: 01/05/2023 **End date of the project**: 30/04/2027
Deliverable due date: 30/04/2024 **Date of delivery**: 30/04/2024
Classification: Public
Associated Work Package(s)

WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8
☑	☐	☐	☐	☐	☐	☐	☐

Version History

Version number	Implemented by	Notes
1.0	USC	Supported by UC

Table of contents

Abbreviation	Full title
AWMN	Agroecological Weed Management Network
AWM	Agroecological Weed Management
LL	Living Lab

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Introduction

The GOOD website is the main hub to share knowledge and disseminate the activities of the project with stakeholders. The url is: https://www.goodhorizon.eu/ . The layout of the website is described in D7.2. A second page will be developed in due time to become the Platform of GOOD and serve as the free "One-Stop-Shop" for agroecology and Agroecological Weed Management (AWM). As described in D7.2, it will host the (i) e-learning module, (ii) the forum for the Agroecological Weed Management Network (AWMN) and a dynamic Living Labs page and gallery, (iii) the decision support system of GOOD, the AWM Toolbox, and (iv) the AWM repository.

GOOD will periodically update the content of the dynamic AWM repository, while all pages of the repository will be transferred to the Platform (second website) once it is launched. Two important milestones are depicted in the following Table.

***Table 1**: Milestones related to the project's AWM repository*

Content	Due date	Deliverable
First version of the AWM repository (in the GOOD website)	**M12 (April 2024)**	**D1.5**
Second and final version of the AWM repository (in the GOOD Platform website)	**M36 (April 2026)**	**D1.9**

The updated layout of GOOD's **PLATFORM** (including the AWM repository) is described in Table 2.

***Table 2**: Layout of GOOD's platform, home page, footers, main and sub-sections*

<table>
<tr><th colspan="7">Home page of the PLATFORM</th></tr>
<tr><td>Main sections</td><td>ABOUT</td><td>AWM repository</td><td>E-LEARNING MODULE</td><td>AWM TOOLBOX</td><td>NETWORK</td><td>CONTACT</td></tr>
<tr><td rowspan="2">Sub-sections (content)</td><td rowspan="2">Information about the technical details of the AWM Toolbox (guidelines methodology etc.)</td><td rowspan="2">Information and educational content on current and agroecological weed management practices</td><td>Webinars, podcasts, peer-to-peer learning</td><td rowspan="2">It is a Decision Support System for cover crops sowing and implementation of combinations of AWM solutions.
The users need to select options from drop-down lists, and they will receive specific recommendations depending on pre-fixed algorithms/guidelines</td><td>Forum (pre-fixed threads or forms of contact)</td><td rowspan="2"></td></tr>
<tr><td>Best Practices</td><td>Living Labs (interactive map)</td></tr>
<tr><td colspan="7">Content on the main page
• Main sections and subsections
• Slogan (e.g., An Agroecological Weed Management Network for the promotion of the adoption of sustainable weed management strategies) and Return to the main GOOD website button
• Teaser video for the Living Labs
• Footer</td></tr>
</table>

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What is the AWM repository?

"A repository for current and agroecological weed management practices and herbicide use"

The project is committed to provide the AWM repository of current weed management practices to raise farmers' awareness of the options available to help them improve their decision-making and increase their confidence to adopt new AWM practices.

The repository brings together various agri-food value chain actors and identifies the real needs of the AWM sector. Specifically, GOOD targets to provide a robust AWM repository to farmers, advisors and consultants, industry, research and academia.

The exploitation of the AWM repository by the different stakeholder groups remains a primary focus.
Farmers: exploitation of the know-how about the current AWM
Advisors: exploitation of knowledge for better farm advice
Industry: identification of new business opportunities
Research & Academia: Exploitation of the scientific knowledge under new research projects and for educational/training purposes

WP1 aims to co-create knowledge on current weed management practices and AWM in agro-ecosystems of EU and Associated countries. In this context, literature review, interviews, questionnaires and workshops with all AWMN actors have already started to be deployed to construct the knowledge base for the AWM repository and identify the critical grassroots needs, barriers, gaps of EU farming systems, also including drivers that affect the farmers' perception and adoption rate of AWM strategies.

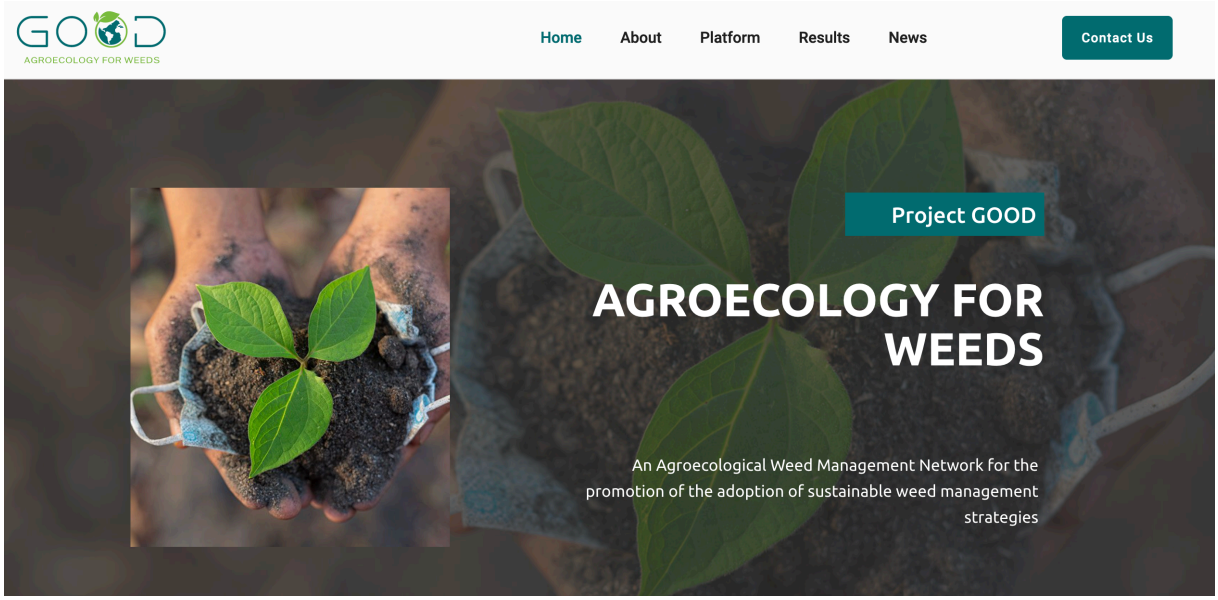

***Figure 1**: Home page of GOOD's website*

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AWM repository design

The AWM repository has to date 4 pages which are described in the following Table.

Table 2: Milestones related to the project's AWM repository

Page	Url
Description	https://www.goodhorizon.eu/platform/description/
Herbicide usage maps	https://www.goodhorizon.eu/platform/herbicide-usage-maps/
AWM practices	https://www.goodhorizon.eu/platform/awm-practices/
Search tool	https://www.goodhorizon.eu/platform/search-tool/

Description

The introductory page of the AWM repository aims to attract users to stay on the website and explore the opportunities and content of the repository. They will get informed on what they may learn, how could AWM practices benefit their farms, which are the included crops, and how they can contribute to the AWMN and the GOOD community.

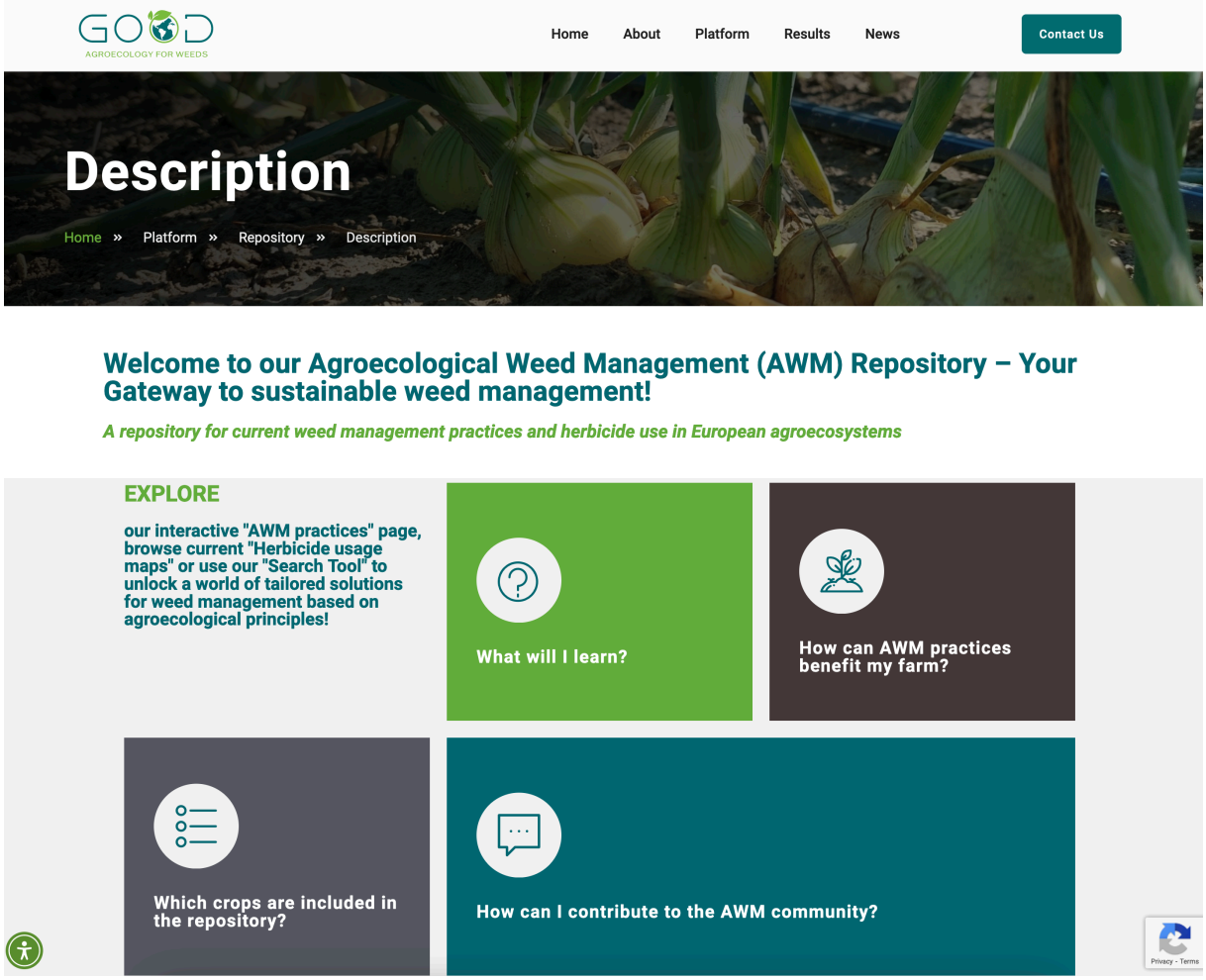

Figure 2: Home page of the "Description" page of the AWM repository

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Herbicide usage maps

The herbicide usage maps aim to show the current (and past) data about herbicide use and sales in Europe. For that reason, the relevant websites of FAOSTAT and EUROSTAT were embedded into this page to link directly to official data. According to previous agreement with the sister projects (AGROSUS and CONSERWA) and based on our common intention to avoid duplications, a link will link directly to their repositories once these are ready. AGROSUS will work intensively on a database of weeds and herbicides.

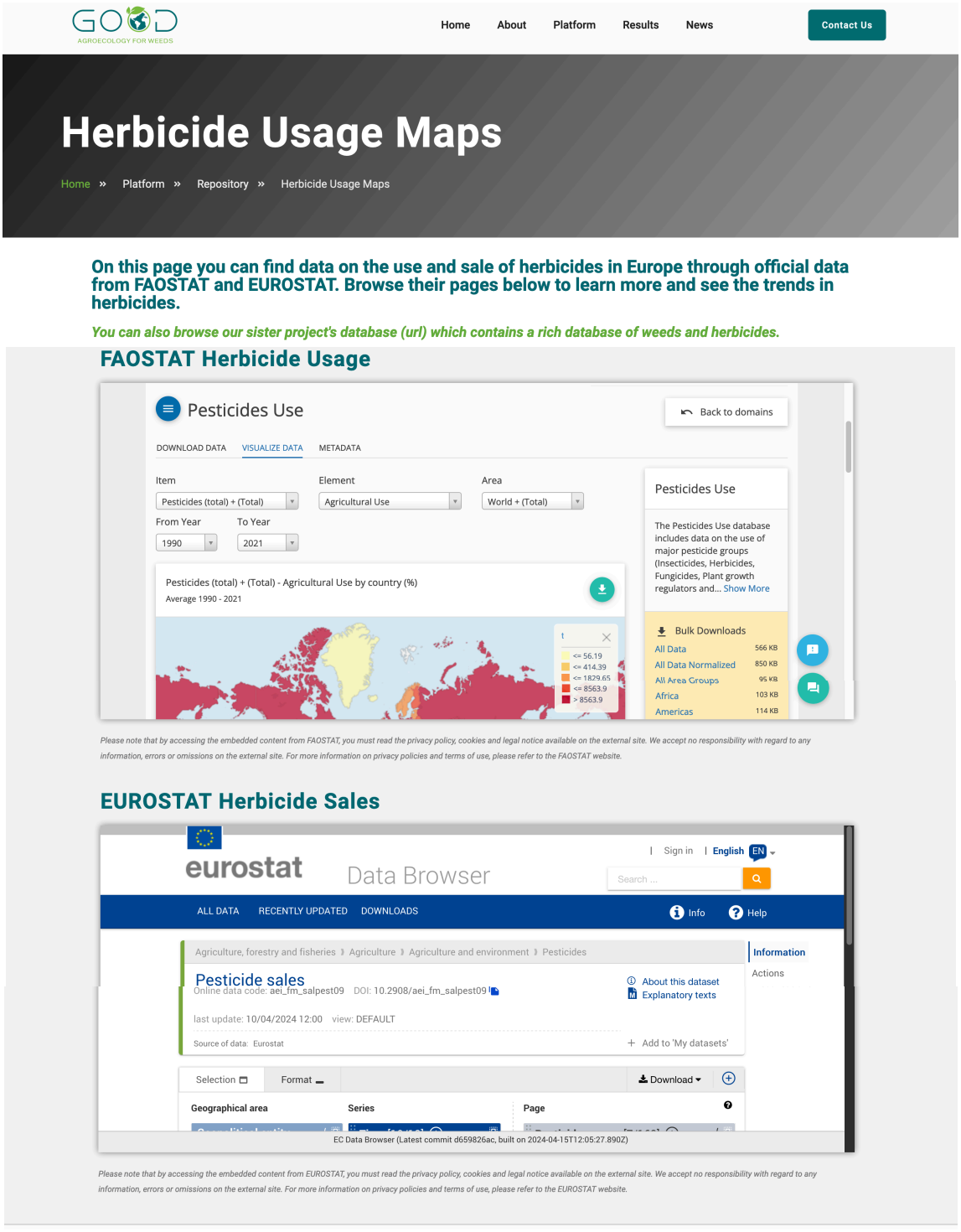

***Figure 3**: Home page of the "Herbicide usage maps" page of the AWM repository*

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AWM practices

In the current version of the AWM repository there are 23 weed management practices. The final version will include 40 practices and combinations for sustainable weed management based on agroecological principles.
The user can hover over the cards which are flipped, and a short description appears. A *pdf* click button directs to a brief 2-page pdf that contains a description and benefits of the AWM practice, strengths-weaknesses-opportunities-threats of the practice, tips, a liability disclaimer and the funding disclaimer.

The practices that are now available to the public are shown in the following Table.

***Table 3**: Agroecological Weed Management practices*

Type of weed management	Practice			
Crop diversification	Crop rotation	Intercropping	Cover crops	
Cultural	False seedbed	Sowing pattern	Hand weeding	
	Mulching		Row spacing	
Mechanical	Mowing		Mechanical control	
Natural solution	Bioherbicides	Grazing	Biological agents	
Novel	Harvest weed seed control		Inoculation of cover crops with AMF	
Technological-Precision	Decision Support Systems	Drones	Robots (automatic)	Hot foam
	Laser weeding	Flaming	Electric weeding	Site-specific spraying

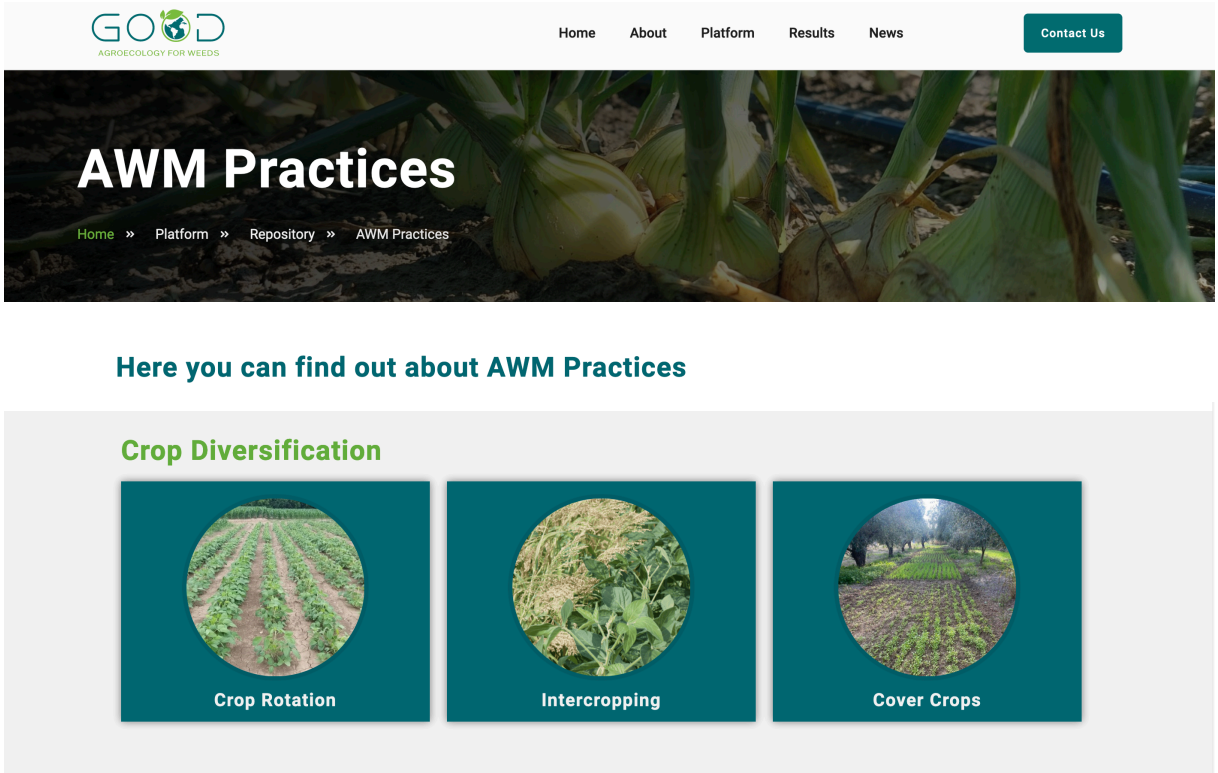

***Figure 4**: Home page of the "AWM practices" page of the AWM repository*

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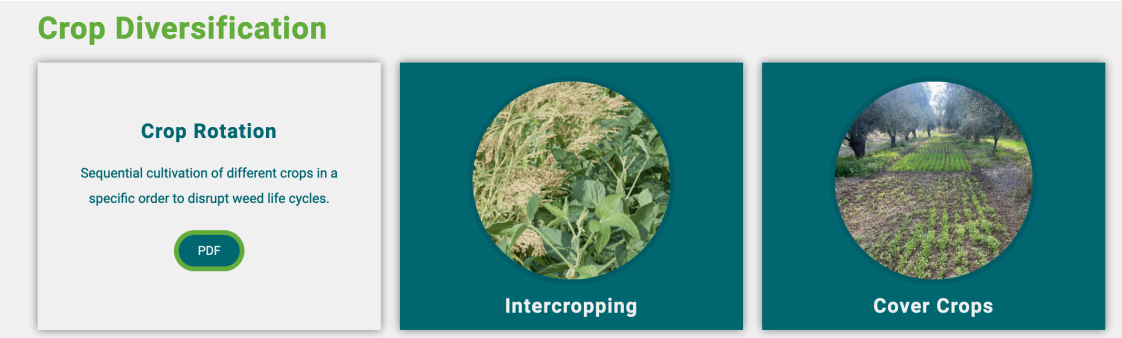

***Figure 5**: Cards of AWM practices*

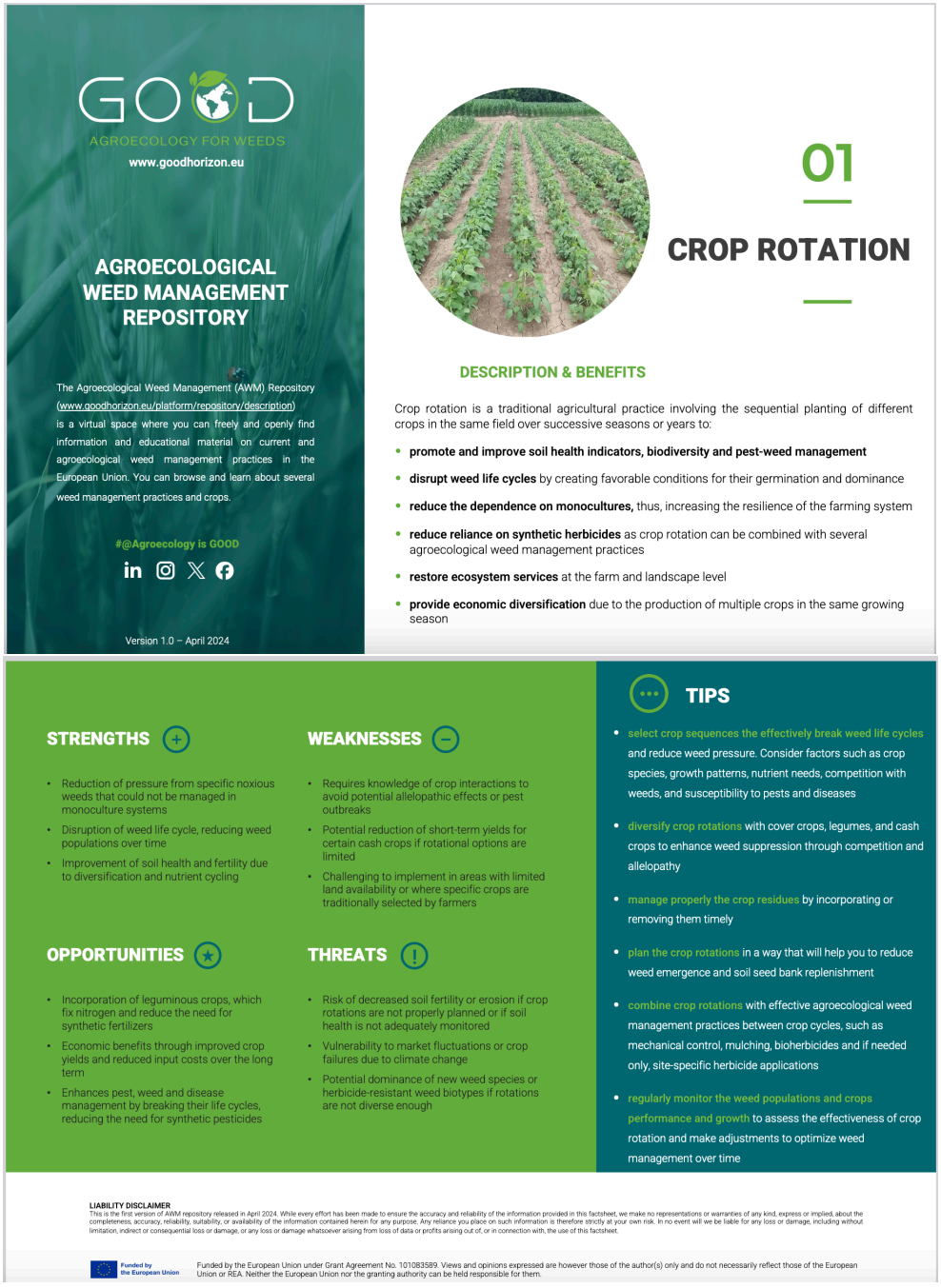

***Figure 6**: Brief description of the AWM practice in downloadable format (pdf)*

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Search tool

The "Search tool" is the dynamic and interactive tool of the AWM repository where users can explore different combinations of crops and AWM practices and read benefits, risks, and tips. It will be a valuable educational and instructive tool to guide sustainable weed management giving practical knowledge that will facilitate decision-making on weed management. As a dynamic tool, the content will be continuously updated and there will not be patch releases. Data from the experimentation in the Living Labs will informally validate the content that is embedded into the Search tool combinations. A future addition in the specific combinations of crop-AWM practice includes a box for "success-stories" to inspire farmers and other stakeholders to adopt the relevant AWM practice in their farming system and another box "Learn more" with links to the e-learning module of GOOD, international open access bibliography and content of associated projects and initiatives.

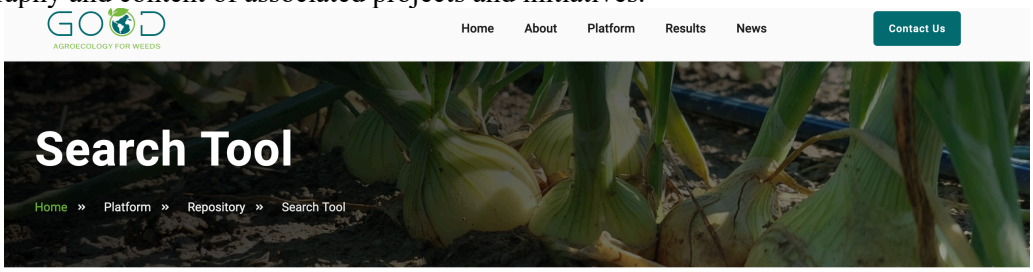

***Figure 7**: Home page of the "Search tool" page of the AWM repository*

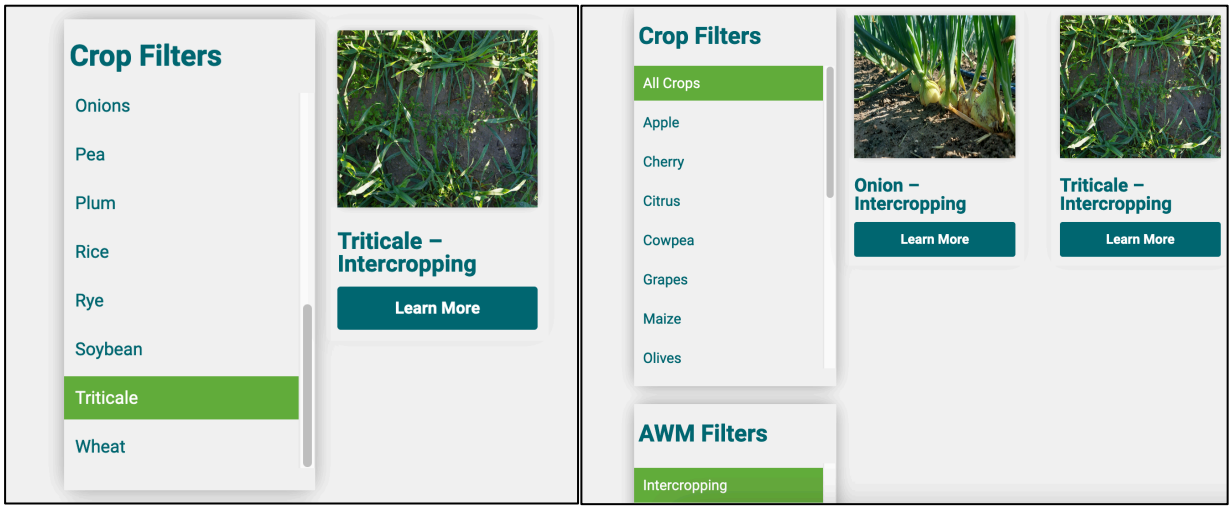

***Figure 8**: Example in the "Search tool" using crop filters only to see all possible AWM practices (left) and AWM filters to see all crops with the same AWM practice (right)*

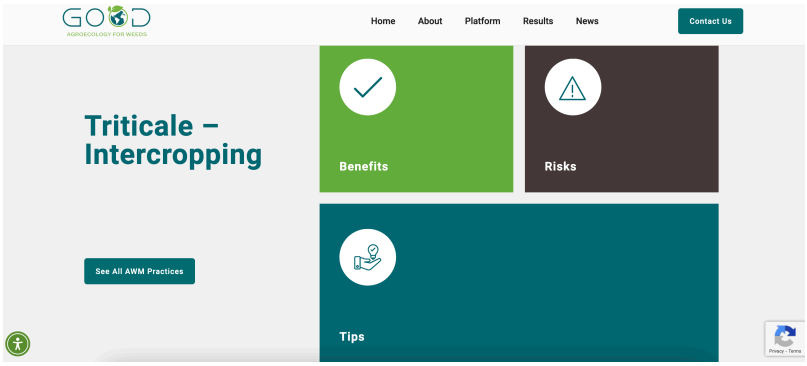

***Figure 9**: Example of a crop-AWM practice combination in the "Search tool"*

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