INTEGRATED WEED MANAGEMENT IN EUROPE

Locations
Europe

Dates
01/06/2017 - 31/05/2022

Summary
Weeds are ubiquitous and cause substantial yield losses across all arable and horticultural land. The goal of this European-wide project is to optimise the efficacy, applicability and use of environmentally friendly weed control measures that can replace or complement current chemical control methods.

The problem
Integrated and environmentally friendly approaches to pest and disease management were adopted in Europe several decades ago, yet managing weeds continues to largely rely on herbicides. In the light of the European Knowledge Based Bio-Economy agenda of the EU and the negative consequences of herbicide-based weed control strategies, there is now an increased need to manage weeds more sustainably to ensure a safe, steady supply of food, feed and biomaterials while minimising environmental impacts. Effective integrated weed management (IWM) strategies are needed to help limit:

- Weeds establishing from the soils natural seed bank or rhizomes etc.
- Competition for resources such as light, nutrients and water by removing weeds or manipulating the weed flora to reduce its competitive impact
- The build-up of seeds and the plant's vegetative organs in the soil
What we are doing

The project is aiming to improve the applicability of non-chemical weed control methods in four different farming systems and will work in close collaboration with the relevant industries. It is focusing on reducing reliance on herbicides by replacing them, wholly or partly, with non-chemical alternatives.

CABI’s role in the project is to study factors affecting weed establishment in perennial grasslands across Europe and then design context-dependent management strategies to prevent or reduce weed problems in them. Capitalising on findings from previous projects, CABI will also explore a novel approach for IWM in Europe: the development of a biological control product for native weeds using highly specific native herbivorous insects. For this part of the project, we will be focusing on Rumex spp., commonly known as docks, which are among the most problematic weeds in European grasslands.

Partners

Stichting Wageningen Research (Netherlands), Agricultural Institute of Slovenia (Slovenia), Rothamsted Research Limited (UK), AGROSCOPE (Switzerland), Aarhus University (Denmark)

CABI Project Manager

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