Team-up crop diversification and weed management

PRODIVA project

Better utilization of crop diversification for weed management in North European organic arable cropping systems

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Introduction

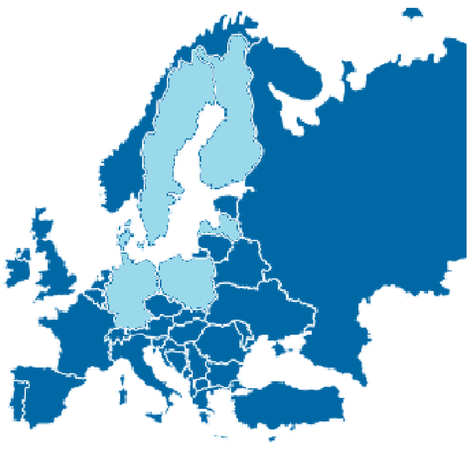
The research-network PRODIVA focuses on a better utilization of crop diversification for weed management in North European organic arable cropping systems. The goal is to maintain diverse arable weed vegetation that is manageable in the long-term and could fulfill other necessary system-functions including support of beneficial organisms.

The partners in PRODIVA will:

• Synthesize knowledge from existing literature, previous and new experiments on cover crops, variety mixtures and crop mixtures.

• Survey regional fields for weeds to safeguard relevance of the experimental research.

• Involve and interact with relevant stakeholders and extension services in agriculture from the participating countries to assist in the research.



Objectives

• To strengthen the scientific foundation for utilization of crop diversification.

• To survey the weed flora regionally.

• To link the weed situation to the applied agronomic measures in farms.

• To bridge the information from surveys with the scientific groundwork.

• To disseminate important results and recommendations to extension services and growers. Active communication about the experiences on both sides.

Hypotheses

Weed management can be improved with:

• Pertinent crop sequencing, mitigating noxious weed species.

• Selected competitive cover crop species.

• Improved cover crop establishment.

• Better utilization of growth resources with crop mixtures.

• Stronger pressure on weeds with variety mixtures.

Project details

Work package 0: Project coordination
Location: *Denmark.* Responsible: Bo Melander

WP1: Weed dynamics in crop rotations with cover crops
Location: *Finland, Latvia, Denmark.* Responsible: Jukka Salonen
Theme: Characteristics and relative competitiveness of cover crops

WP2: Crop mixtures for weed suppression
Location: *Sweden, Poland.* Responsible: Anneli Lundkvist
Theme: Ecophysiological traits which determine crop-weed interactions

WP3: Variety mixtures for weed suppression
Location: *Denmark, Poland, Latvia.* Responsible: Bo Melander
Theme: Variety mixtures of spring barley and oat competing with weeds

WP4: Crop diversification applications and weed flora on farms
Location: *Germany, Denmark, Sweden, Finland, Latvia.* Resp.: Bärbel Gerowitt
Theme: Identifying the potential of crop diversification for weed management

WP5: Project dissemination
Location: *Germany, Denmark, Sweden, Finland, Latvia, Poland*
Responsible: Bärbel Gerowitt

Time frame

This project has a duration of three years: **01.03.2015-28.02.2018**.
Annual partner meetings and stakeholder meetings will be organized.

Funding

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Contact

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Sonchus arvensis; a problematic perennial weed. Source: J Salonen

Weed suppressive ability of different spring barley varieties. Source: B Melander

Grain-pea crop mixture. Source: R Krawczyk

PRODIVA partners I. to r. L de Cock (Core Organic), T Verwijst (SE), J Salonen (FI), L Zarina (LV), B Melander (DK), S Kaczmarek (PL), MAJ Hofmeijer (DE), R Krawczyk (PL), B Gerowitt (DE), A Lundkvist (SE).

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