

The InterVeg project

Enhancing multifunctional benefits of cover crops – vegetable intercropping

CORE organic II tema område CROPPING

Projektperiode sept. 2011-aug. 2014

Projektleder Stefano Canali CRA



The InterVeg project

Deltagere

Consiglio per la Ricerca e la Sperimentazione

In Agricoltura (CRA)

Associazione Italianan Agricoltura Biologica

Universita di Bologna

University of Kassel

Aarhus University

University of Maribor



Cover crops in the organically managed agro-ecosystems

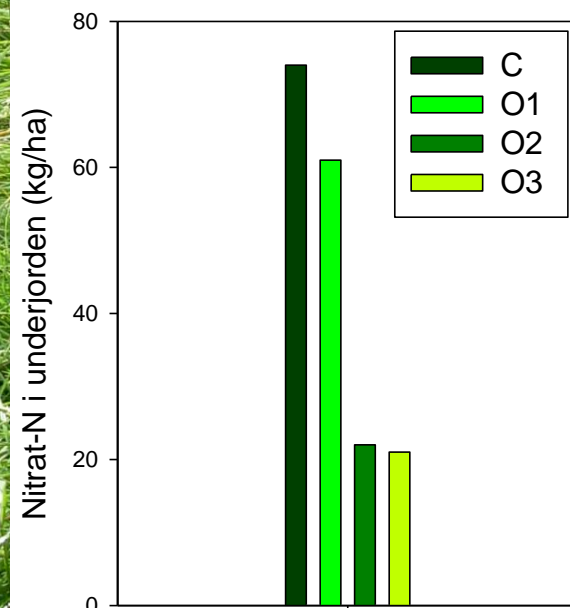


Synergi med andre projekter

- **Orweeds** (IT) - agro-ecological, indirect methods for weed control in vegetable production organic systems
- **ValorBio** (IT) - exploitation of vegetables local genotypes for organic productions
- **SOSBio** (IT) - indicators for environmental assessment
- **VegQure** (DK) – Økologiske dyrkningssystemer for grønsagsproduktion - Produkt kvalitet, naturlig regulering, og miljø effekter

VegQure

Lav-input system med
mellemafgrøde giver
højt udbytte, god kvalitet og
lavt kvælstoftab



Thorup-Kristensen et al. (in press)
European Journal of Agronomy

Cover crops introduced in the vegetable system as living mulch

Cash crop intercropped with a cover crop:

- most of system resources should remain available for the cash crop, then crop management should aim at
 1. optimizing the ecological services within the field/farm
 2. reducing competition between main and cover crop

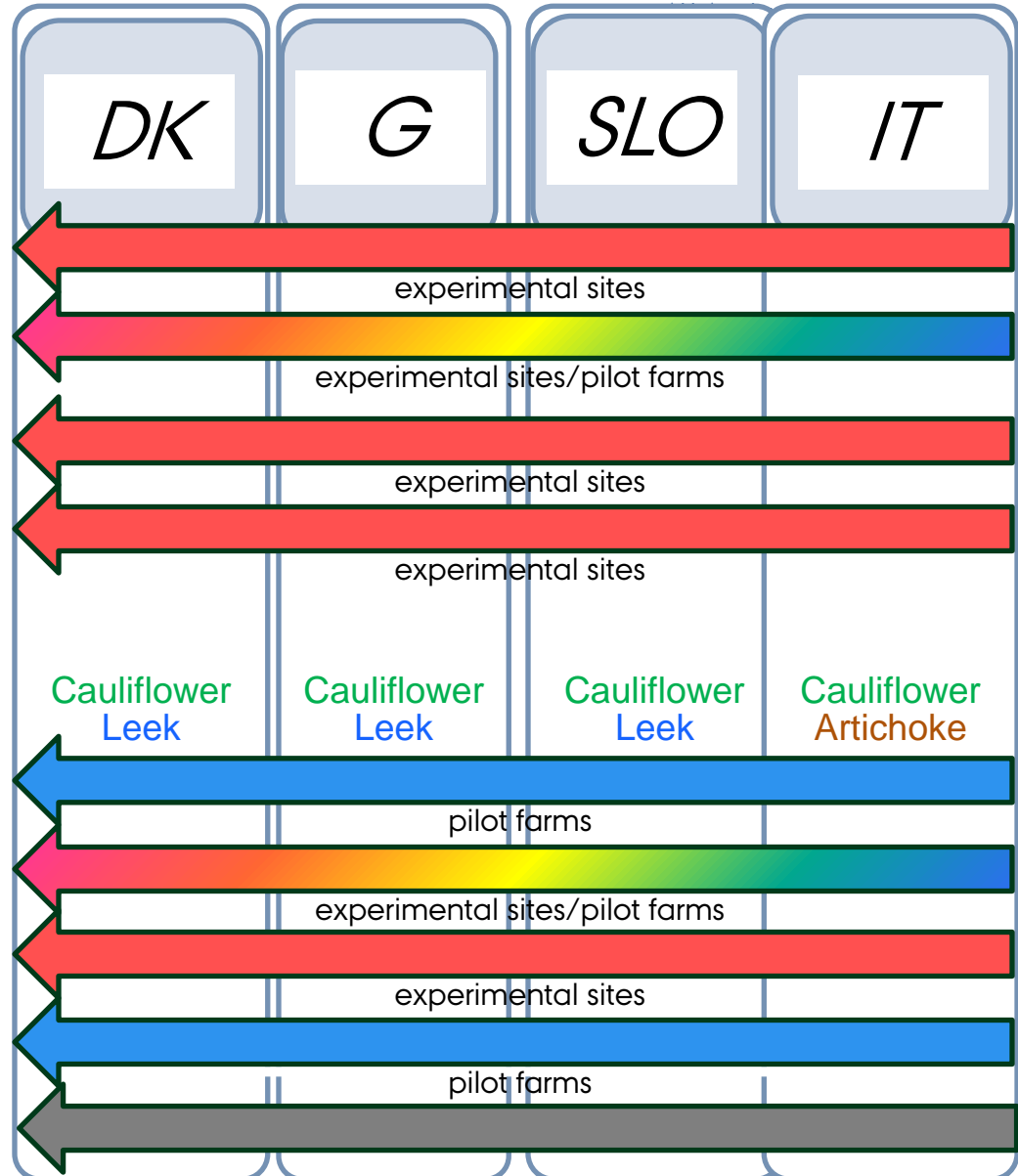
Intervegg research hypothesis

The proper management of living mulch in vegetable production systems (compared to sole cropping) allows:

- comparable yields
- higher produce quality
- lower environmental impact (i.e. reduction of N leaching)
- higher profitability (i.e. due to off-farm input reduction)

WP Study areas

2	Yield and harvest quality
2	Benefits and costs assessment
3	N, P, K availability assessment
3	N leaching potential risk
4	Pests/beneficial insects management
5	Energy saving quantification
5	Weed management and competition assessment
6	Stakeholders involvement
6	Dissemination



Experimental factors

System management

Living mulch early and late sowing, row spacing, root pruning affects competition between crop and living mulch?

Cultivars

Hybrid cultivar higher competitive ability compared to local cultivar?

Nitrogen fertilisation

Relationship between N fertilisation, living mulch competition, N losses and crop yields?

Perspektiver for økologisk grønsagsdyrkning og samfundet

Robuste systemer med
forbedret økonomisk udbytte,
lavere belastning for miljøet og
højere biodiversitet

