

Crop rotation and management of inter-crop periods

Long and diversified crop rotations can prevent from huge weed infestation in arable crops

Readiness for use: 

Efficacy: 

How it works

- Crop rotations are pivotal to achieve the target of reducing weed problems in arable cropping systems
- Diversification of the crop rotation is the crucial aspect to ensure an effective weed control
- At species level it is important to alternate:
 - Summer and winter annual crops
 - Annual and perennial crops
 - Grass and legumes
 - Cash and cover crops
 - Root crops, leaf crops, grain crops
- At crop technique level it is important to alternate:
 - Tillage: different tillage operations, timings, depth
 - Sowing technique: depth, timing, type (broadcast vs row)
 - Herbicides/Mechanical/Thermal weed control
 - Harvest technique: different timing, machinery
- Special attention should be paid to inter-crop periods (stubble cleaner, false/stale seedbed technique, cover cropping) to prevent from infestation due to aggressive, competitive, herbicide-resistant species (e.g. ryegrass populations with multiple herbicide resistance)



Figure 1. Red clover is a biannual legume cover/forage crop that can be grown in relay intercropping systems allowing for 2 complete years of soil cover



Figure 2. Stubble tillage is essential to stimulate weed seeds to emerge, thus allowing for false seedbed technique and stopping increase in weed soil seedbank



Figure 3. Frost sensitive species (e.g. white mustard) can be grown in between winter and summer crops to control early emerging weeds in the fall and to leave the soil free in early spring for timely cash crop sowing

Read more

[Inspiration sheet on roller crimpers](#)

[Cover crops promote crop productivity but do not enhance weed management in tillage-based cropping systems](#)

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