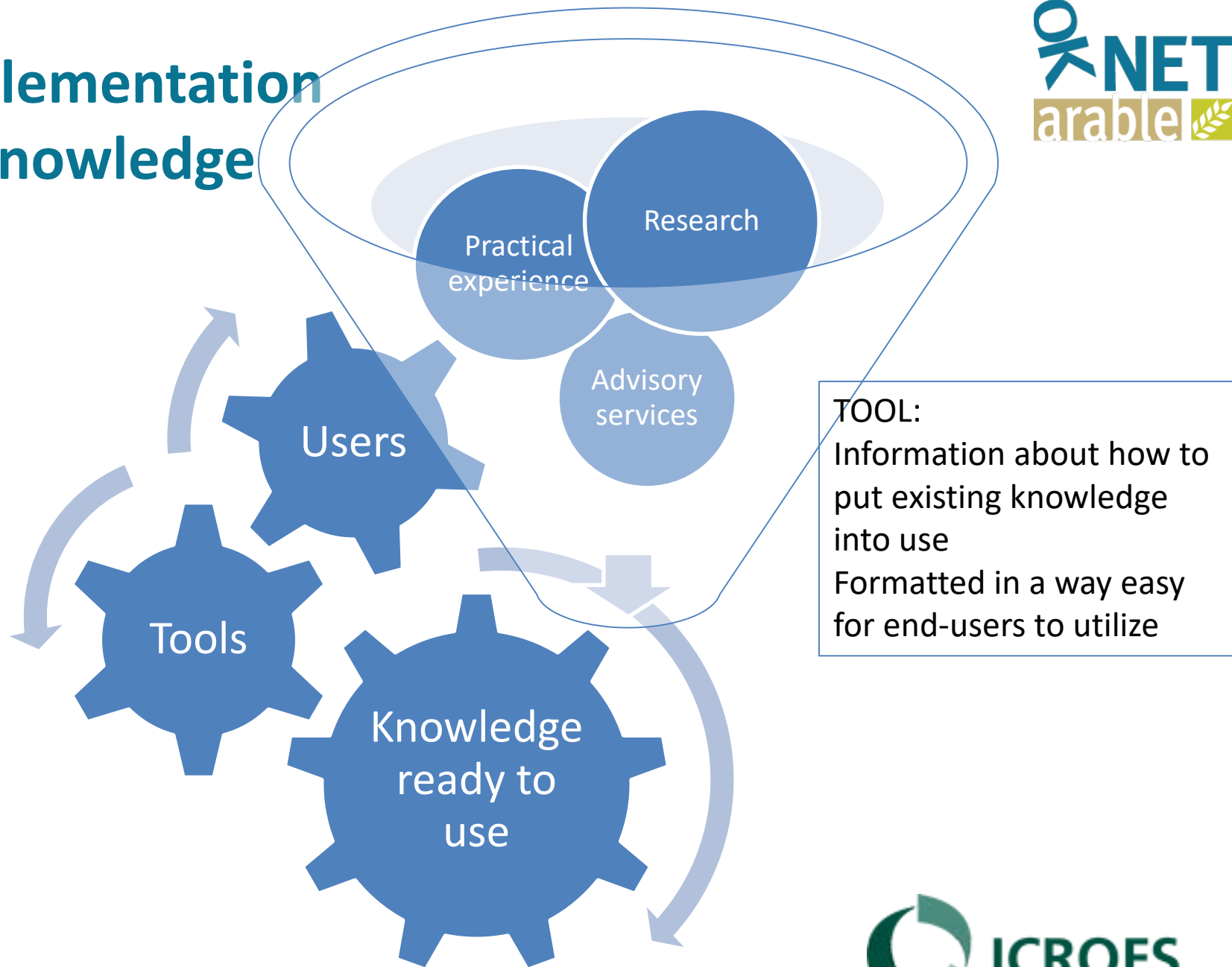


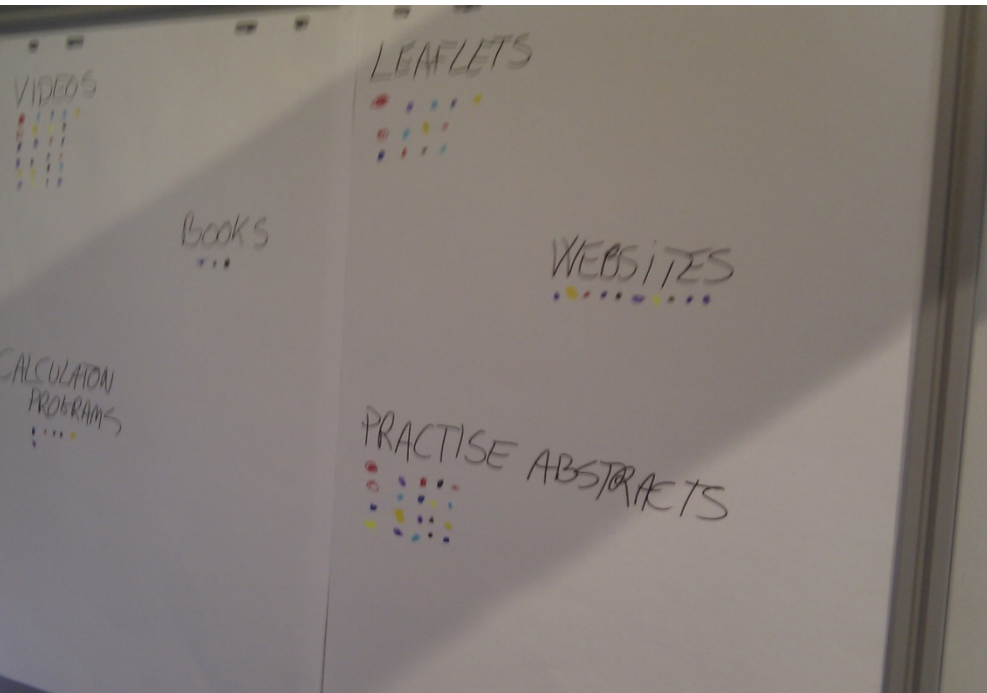
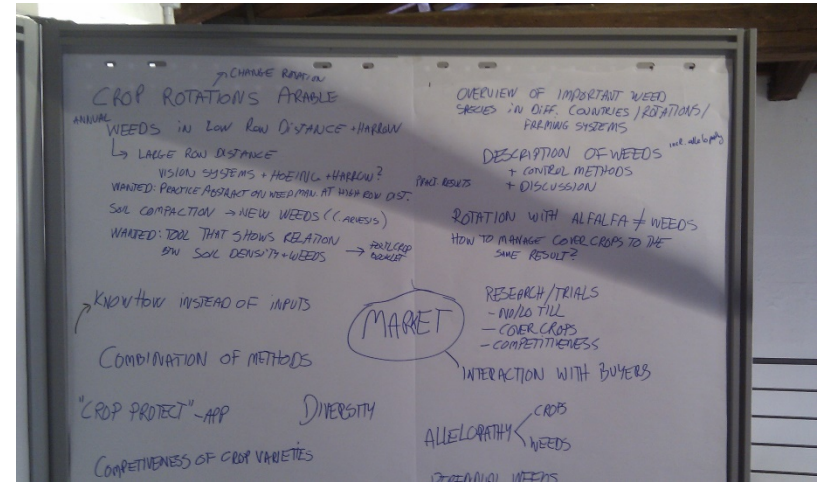
OK-Net Arable online knowledge platform

Ilse A. Rasmussen; Allan Leck Jensen; Margit Styrbæk
Jørgensen; Helene Kristensen & Bram Moeskops

Implementation of knowledge



Farmer groups discuss and evaluate tools



EIP-AGRI Focus Group Organic Farming Optimising Arable Yields



- Poor soil fertility management
- Inadequate nutrient supply
- Insufficient weed management
- Pest and disease pressure
- Variety choice.



farmknowledge.org



OK-Net Arable - exchange knowledge, enhance farming

Browse the knowledge base in one of the five themes



Search the knowledge base

Number of tools in the database: 96

Recommended tool 02-11-17

The Muencheberg Soil Quality Rating ...

Field manual for detecting and assessing soil properties and limitation

Latest tool 24-08-17

NDICEA - Nitrogen Planer – version...

A useful tool for understanding nitrogen dynamics in organic rotations

Latest comment

OK-Net Arable Field manual for detecting and assessing soil properties...

[Soil quality and fertility](#) · 1 day ago

Suggest a tool

English

English

Bulgarian

Danish

Dutch

Estonian

French

German

Hungarian

Italian

Latvian

Mainta

is a dif

autom

Transl

is offer

We ap

It seen

problems with the Google translations in Internet Explorer, where text strings are cut off when special characters occur. We recommend the use of other browsers such as Chrome or Firefox.

f

Twitter

in

G+

Envelope

Soil quality and fertility



Sustainable crop production is dependent on maintaining and improving soil quality and fertility, which are dependent on organic matter in the soil and its impact on the soil's chemical, biological and physical properties. Organic matter is the source of life for the immense variety of soil microbes and soil fauna that make nutrients available and build soil structure. Therefore, crop rotations should always include a phase that allows organic matter in the soil to build up i.e. through incorporating perennial grass-clover leys or catch crops during autumn and winter. To protect soil life, the input of nutrients via manure, crop residues or other fertilisers should be well-balanced. Compaction by heavy machinery should be avoided for the same reason.

On this page, you can find tools and resources to help you improve soil quality and fertility, and you can discuss the topic with others.

Tools

This weeks recommended tool

Aerated compost tea (ACT) to improve soil biology and to ac...



There is a growing body of evidence supporting the benefits of aerated compost tea (ACT) application, but not all studies have shown this conclusively. Compost tea application helps build healthy soils which

Most popular tool

Visual soil assessment: field guide for cropping...



Visual assessments provide a diagnostic tool to evaluate many physical, biological (and degree chemical) soil characteristics up as visual characteristics

Show tools (35)

Suggest a tool

farmknowledge.org



ICROFS

International Centre for Research
in Organic Food Systems

Back

Suggest a tool

Crop rotation and its ability to suppress perennial weeds

Preventive control of perennial weeds through weed-suppressing crop rotation



[Related content from Organic Eprints](#)
[More about the tool on Organic Eprints](#)

[Link to the tool \(Danish\)](#)

Leaflets
and guidelines



Give your rating to the tool: ★★★★★

Average rating to the tool: 0.0 Number of ratings to the tool: 0

Problem

The problem of perennial weeds in organic arable farming

Solution

A well-designed crop rotation system is the key to preventive control of perennial weeds.

Description

Weed-suppressing crop rotations are essential for sustainable organic arable farming. Preventing spread of perennial weeds will increase crop yields and quality. The tool is a factsheet created for all organic farmers as we all need renewed knowledge on weed-suppression and crop rotation from time to time. The factsheet provides practical recommendations on crop selection and composition of crop

Applicability

Theme

Soil quality and fertility, Weed management, Crop specific

Languages

Danish language

Show more information

[Tilbage](#)
[Foreslå et værktøj](#)

Sædskifte og dens evne til at undertrykke rodukruddt

Forebyggende bekæmpelse af flerårigt ukrudt gennem ukrudt-undertrykkende vekseldrift



[Relateret indhold fra Organic Eprints](#)
[Link til mere information](#)

[Link til værktøjet \(Dansk\)](#)



Giv din bedømmelse af værktøjet:



Gennemsnitlig bedømmelse af værktøjet: **0,0** Antal bedømmelser af værktøjet: **0**

Problem
Problemet med rodukruddt i økologisk planteavl
Løsning
Et godt designet vekseldrift er nøglen til forebyggende bekæmpelse af flerårigt ukrudt.
Beskrivelse
Weed-undertrykke sædskifter er afgørende for en bæredygtig økologisk planteavl. Forebyggelse spredning af rodukruddt vil øge høstudbytte og kvalitet. Værktøjet er et faktablad skabt for alle økologiske landmænd, som vi alle har brug for fornyet viden om ukrudt-undertrykkelse og sædskifte

Anvendelsesområde
Tema
Jordkvalitet og frugtbarhed, Ukrudtsbekæmpelse, Afgrødespecifik
Sprog
dansk sprog
Vis mere information

Crop rotation and its ability to suppress

{Tool} *Crop rotation and its ability to suppress perennial weeds.* [Sædskifter.] Creator(s): A



PDF - Danish/Dansk (Sædskifter)
3MB

Online at: <https://www.landbrugsinfo.dk/Oekologi/Plante>

Summary

Weed-suppressing crop rotations are essential for sustainable organic arable farming. Preventing spread of pe
The tool is a factsheet created for all organic farmers as we all need renewed knowledge on weed-suppression
The factsheet provides practical recommendations on crop selection and composition of crop rotations in accor
combination of crops and green manures, designed specifically for the conditions and needs of individual fields
prevention but also provides recommendations in case of high weed pressure. Example: Do not sow a winter c
period of time. Instead, undersow a cover crop in the legumes to hold back the nutrients and sow a competitive

By language

By type

By theme

Practice abstracts (27) x


1

2

Order by

Latest uploaded to

farmknowledge.org

 - Results - (1-25/27)

Title

- 1 [Controlling potato beetles with Bt](#)
- 2 [Crop rotation and its ability to suppress perennial weeds](#)
- 3 [Efficient use of nitrogen from livestock manure](#)
- 4 [Growing cover crops in organic arable crop rotations: Best practices from Denmark](#)
- 5 [Weeds topping machine on soya](#)
- 6 [Roller crimper and other green mulching techniques for soya cultivation](#)
- 7 [Cultivating a diverse wheat population suitable for low-input and organic farming](#)
- 8 [Aerated compost tea \(ACT\) to improve soil biology and to act as a biofertiliser/biofungicide](#)
- 9 [Diverse fertility building leys in arable rotations](#)
- 10 [Monitoring weed regulation services by carabids](#)
- 11 [Use of rock dust against the rape pollen beetle](#)
- 12 [Rolling of grains to prevent winter kill damage](#)
- 13 [Calculate the risk of wireworm infestation in the field](#)
- 14 [Using crop rotation to control wireworms](#)
- 15 [Controlling docks by stubble cultivation](#)
- 16 [Reducing the use of copper in potatoes](#)
- 17 [Commercial organic fertiliser as supplementary fertilisers in potato crop production](#)
- 18 [Winter field peas as green manure before maize](#)
- 19 [Nitrogen supply for winter oilseed rape](#)
- 20 [Testing peas for legume fatigue](#)
- 21 [Reducing weed seed pressure with the false seedbed technique](#)
- 22 [Catch crop in maize](#)
- 23 [No-till cultivation of maize in rolled forage peas](#)
- 24 [Black-grass control in winter cereals with hoeing](#)

Crop rotation and its ability to suppress perennial weeds



NET

PRACTICE ABSTRACT

Problem	Applicability
Cropping thalls can readily spread, especially in one rotation. Crops that contain a high number of annual crops without perennial grasses or legumes. It reduces soil fertility by competing for water and nutrients.	Theme Weed management
Solution	Geographical coverage Central Europe
Cropping thalls populations can be successfully reduced by repeatedly undertaking stubble cultivation after an early maturing crop and cultivating a directly growing catch crop.	Control factors
Outcomes	Application time Between end of June and beginning of August, in view of weather
Multiple cultivations lead to a repeated physical damage of the thalls. Each time it regrows, it uses further nutrients until it is exhausted and a new crop will outcompete it. This method is also effective against other root-spreading weeds such as couch grass and timothy.	Required time 2-3 stubble cultivations
Practice recommendations	Period of impact Lasting one year
After harvesting grain, perform stubble cultivation with a disc plough or a completely foliaceous crop.	Equipment Disc plough or ring plough cultivator
	Best after Crops or other early maturing crops like rapeseed

[Related content from Organic Eprints](#)
[More about the tool on Organic Eprints](#)

[Link to the tool \(English\)](#)



Give your rating to the tool: ★★★★★

Average rating to the tool: 4.0 Number of ratings to the tool: 1

Problem

Perennial weeds like thistle and couch-grass hinder growth and yields of arable crops. Without a proper focus on perennial weeds (through a good crop rotation system) organic arable cropping systems may not manage for more than 6 years without facing major weed problems.

Solution

Crop rotation is a key tool for preventive control of perennial weeds in arable farming. Weed-suppressing rotations include an appropriate percentage of competitive crops and green manures. Selection of the right crops and their proper management are important for successful weed prevention.

Description

Applicability

Theme

Soil quality and fertility, Weed management

Languages

English language

[Show more information](#)

Basic rules

- Implement green manures, such as clover or lucerne, in at least 20 % of the rotation.
- Do not grow more than 50 % of cereals with low weed competitiveness in the rotation. Do not cultivate such crops for more than 2 consecutive years.
- In fields with prevalent high weed pressure cultivate only crops with high weed competitiveness.

Crop selection and composition of crop rotation

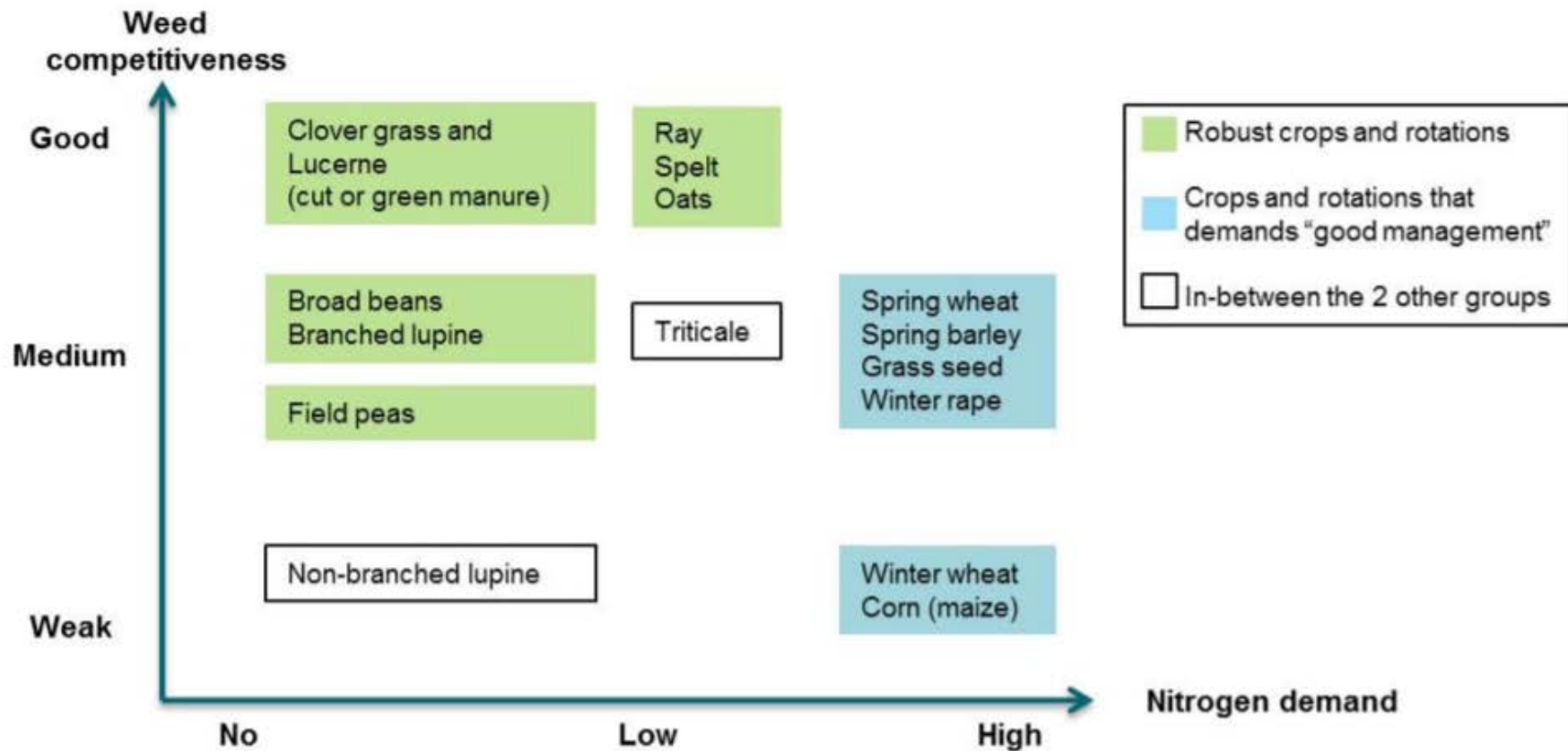


Figure 1: Crop selection in accordance to weed competitiveness and nitrogen demand

Discussion forum

Here you can discuss your problems and solutions for this theme

5 Comments farmknowledge.org

Recommend 1 Share


Join the discussion...

Leave a comment


 **OK-Net Arable** Mod - 8 months ago
Solutions, potentials & challenges for organic farming in the UK


LOG IN WITH




 **OK-Net Arable** Mod - 8 months ago
Désheber mécanique

Back Suggest a tool

 **Carlo Ponzio** - 5 months ago
Finger harrow and wide crop rotation

 **Bram Moeskops** Mod - 9 months ago
What methods do you use to control weeds? Do you apply mulch? Do you recommend it to others?

 **Zoltan Dezsény** → Bram Moeskops - 5 months ago
We grow vegetables on small scale, so not under arable conditions. See www.acta.fapz.uniag.sk/journal...
However, it is only the result of the first year of a multiple-year trial.

Send

From: IlseA.Rasmussen@icrofs.org

To:

Cc:

Subject:

Login

Sort by Newest

Dear user of farmknowledge.org

Please complete as much of the information below as possible:

Your name:

Name of recommended tool:

Why do you think this tool is relevant?:

Link to the tool or to a website with information about the tool:

Tool producer/owner (name and link/ address/ email):

Thank you,

The OK-Net Arable Team



Advanced search

Reset search

Q - Search

Search by keywords

Annual weed (11)

Arable crops (20)

Arable farming (87)

Biodiversity (2)

Biological control (4)

B Carbon sequestration (5)

Catch crop (6)

Cereal crop (6)

Compost (5)

Arbitrary text search



By type

By theme

Video gallery



BASE-ABC, a group of French organic farmers applying conservation agriculture
3:42



Le réseau RotAB: sites expérimentaux de l'agriculture biologique (OK-Net Arable & OK-Net Céréales)
1:43



Presentation of RotAB Network for organic farming (OK-Net Arable & OK-Net Céréales)
1:45



Dialogue between Belgian and French organic farmers in the OK-Net Arable & OK-Net Céréales
6:06



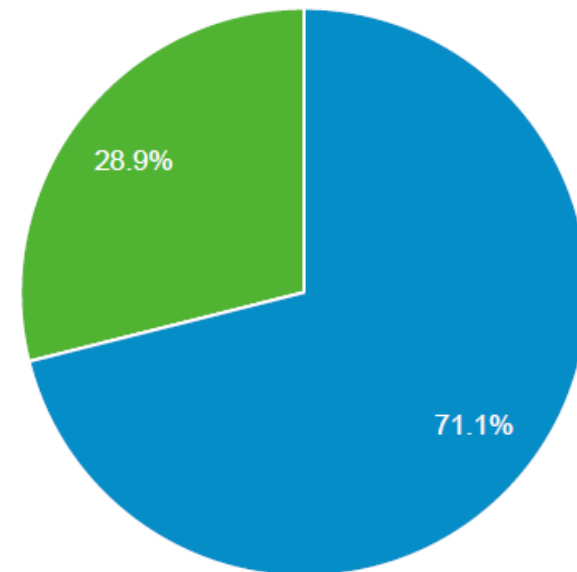
BASE-ABC, a group of French organic farmers applying conservation agriculture
3:35

Statistics

- › 670 visitors/month
- › 300 pageviews/month

- › > 50 % English
- › 10 % German
- › 6 % Italian
- › < 5 % each of other languages (Dutch, Danish, French, Czech)

■ New Visitor ■ Returning Visitor



Farmknowledge.org

- knowledge platform of OK-Net Arable

Developed by ICROFS/AU

- Allan Leck Jensen
- Ilse A. Rasmussen
- Margit Styrbæk Jørgensen
- Helene Kristensen
- Dennis Christensen

More information

- Contact: Bram.Moeskops@ifoam-eu.org
- Visit: www.ok-net-arable.eu
- Visit <http://farmknowledge.org/>



OK-Net Arable has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 652654.

This communication only reflects the author's view. The Research Executive Agency responsible for any use that may be made of the information provided.

Farmknowledge.org