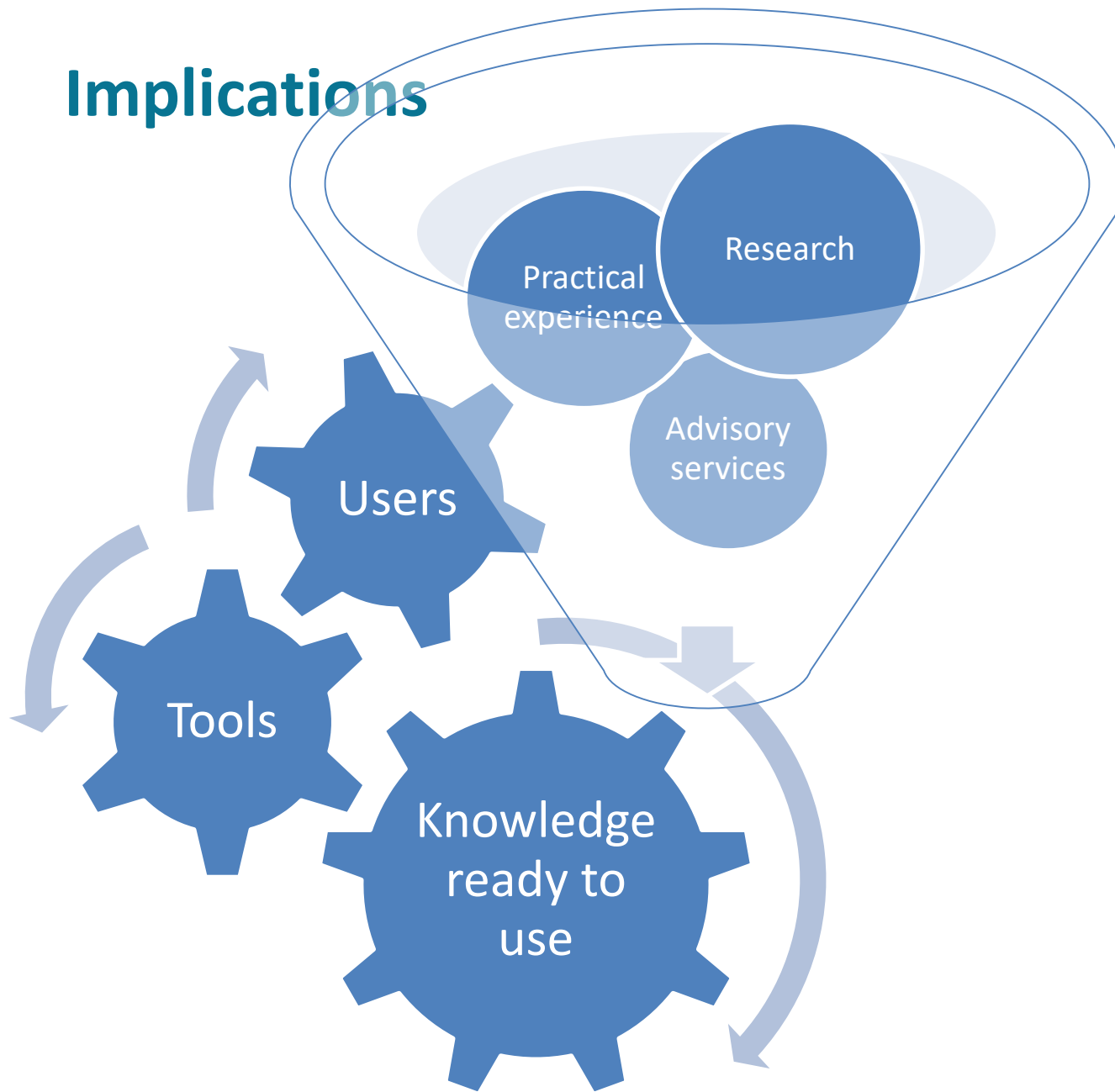


OK-Net Arable online knowledge platform

I. A. Rasmussen; A. L. Jensen; M. S. Jørgensen; H. Kristensen; M. Conder; C. Micheloni & B. Moeskops

Implications



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.



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OK-Net Arable - exchange knowledge, enhance organic farming

Browse the knowledge base in one of the five themes

Search the knowledge base

Number of tools in the database: 96

Recommended tool 10-05-17

Aerated compost tea (ACT) to impr...



There is a growing body of evidence supporting the benefits of aerated compost tea (ACT) application, but

Latest tool 24-05-17

Controlling potato beetles with Bt



Check the state of infestation • When the potato plants start to emerge, walk the field every 7 days in a

Latest comment

 [OK-Net Arable](#) Check this practice abstract for the benefits of aerated...
[Soil quality and fertility](#) · 1 month ago

Soil quality and fertility



Nutrient management



Pest and disease control



Weed management



Crop specific



Suggest a tool

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



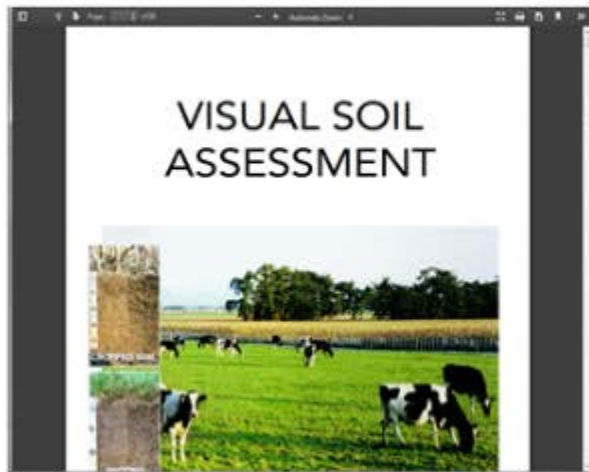
Visual assessments provide a diagnostic tool to evaluate many physical, biological (and degree chemical) soil characteristics up as visual characteristics

Show tools (35)

Suggest a tool

Visual soil assessment: field guide for cropping

Score your soil using soil and plant indicators



[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: **4.7** Number of ratings to the tool: **3**

Problem

Soil degradation (chemical, biological, physical), productivity loss

Solution

Visual assessment of origin of soil degradation and promotion of sustainable practices

Description

Visual assessments provide an immediate diagnostic tool to evaluate soil quality, as many physical, biological (and to a lesser degree chemical) soil characteristics show up as visual characteristics. Results are easy to interpret and understand. The Visual Soil Assessment (VSA) method has been developed to help land managers assess soil quality easily, quickly, reliably and cheaply on a paddock scale. It requires little equipment, training or technical skills. Part I, "VSA of soil quality under cropping" uses a score card for soil indicators and for plant indicators. The different indicators and states of condition are shown in photos which enables a direct and qualitative on-field scoring and assessment.

Calculator



Applicability

Theme

Soil quality and fertility

Languages

English language

[Show more information](#)

OK-Net Arable - exchange knowledge, enhance farming

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where text strings are cut off when special characters occur. We recommend the use of other browsers such as Chrome or Firefox.

English

English

Bulgarian

Danish

Dutch

Estonian

French

German

Hungarian

Italian

Latvian

Browse the knowledge base in one of the five themes:

Search the knowledge base

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Recommended tool 10-05-17

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Latest comment

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Soil quality and fertility - 1 month ago

Soil quality and fertility



Nutrient management



Pest and disease control



Weed management



Crop specific



[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 perennial weeds is a key challenge. 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 accordance with the combination of crops and green manures, designed specifically for the conditions and needs of individual fields. It provides prevention but also provides recommendations in case of high weed pressure. Example: Do not sow a winter cover crop in a long 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

 - 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](#)
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- 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](#)
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- 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 w



The thumbnail shows a document titled 'PRACTICE ABSTRACT' with the following sections:

- Problem:** Cropping thalls can readily spread, especially in one rotation. Some thalls contain a high number of sexual spores without perennial grass/leaves. It reduces soil fertility by competing for water and nutrients.
- Solution:** Cropping thalls populations can be successfully reduced by repeatedly undertaking stubble cultivation after an early maturing crop and cultivating a directly growing catch crop.
- Outcomes:** 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.
- Practice recommendations:**
 - After harvesting grain, perform stubble cultivation with a disc plough or a completely flat-topping one.
- Applicability box:**
 - Theme:** Weed management
 - Geographical coverage:** Central Europe
 - Application time:** Between end of June and beginning of August, in view of weather
 - Required time:** 2-3 stubble cultivations
 - Period of impact:** Following crop
 - Equipment:** Disc plough or ring-shank cultivator
 - Best after:** Spurn or other early maturing crop. No rotation

[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](#)

Practical recommendation

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

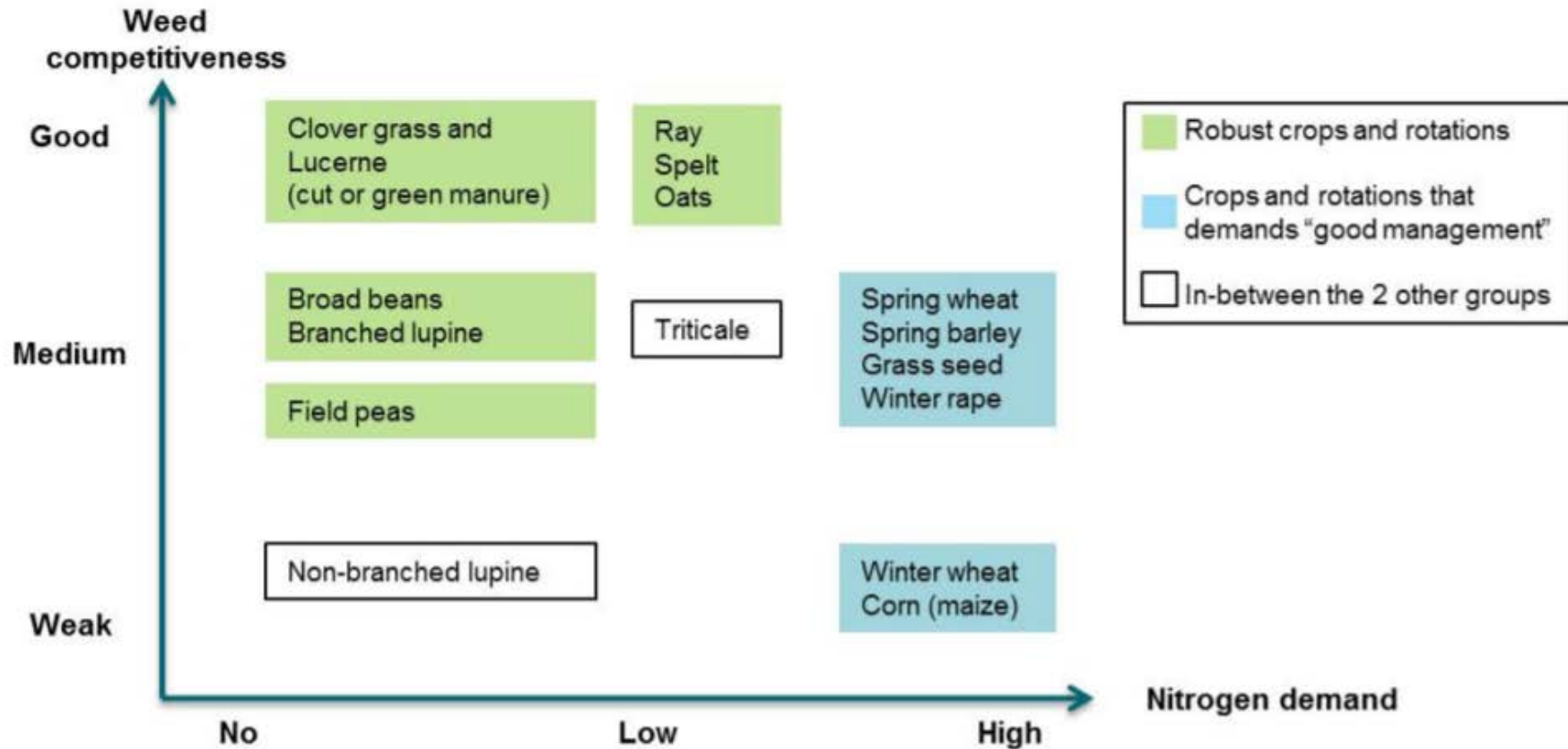


Figure 1: Crop selection in accordance to weed competitiveness and nitrogen demand

Discussion forum

Here you can discuss your problems and solutions for this theme

5 Comments farmknowledge.org

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Join the discussion...

Leave a comment



OK-Net Arable Mod - 8 months ago
Solutions, potentials &...

LOG IN WITH



OK-Net Arable Mod - 8 months ago
Désherber mécanique...

Back

Suggest a tool



Carlo Ponzio - 5 months ago
Finger harrow and wide crop rc...



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



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

Send	From	IlseA.Rasmussen@icrofs.org	Login
	To...	ok.net.arable@gmail.com	
	Cc...	organicfarmknowledge@gmail.com	by Newest
	Subject:	Suggest a tool	

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

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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
applying conservation agricult
3:42



Le réseau RotAB: sites expéri
biologiques (OK-Net Arable &
1:43



Presentation of RotAB Networ
organic farming (OK-Net Arab
1:45

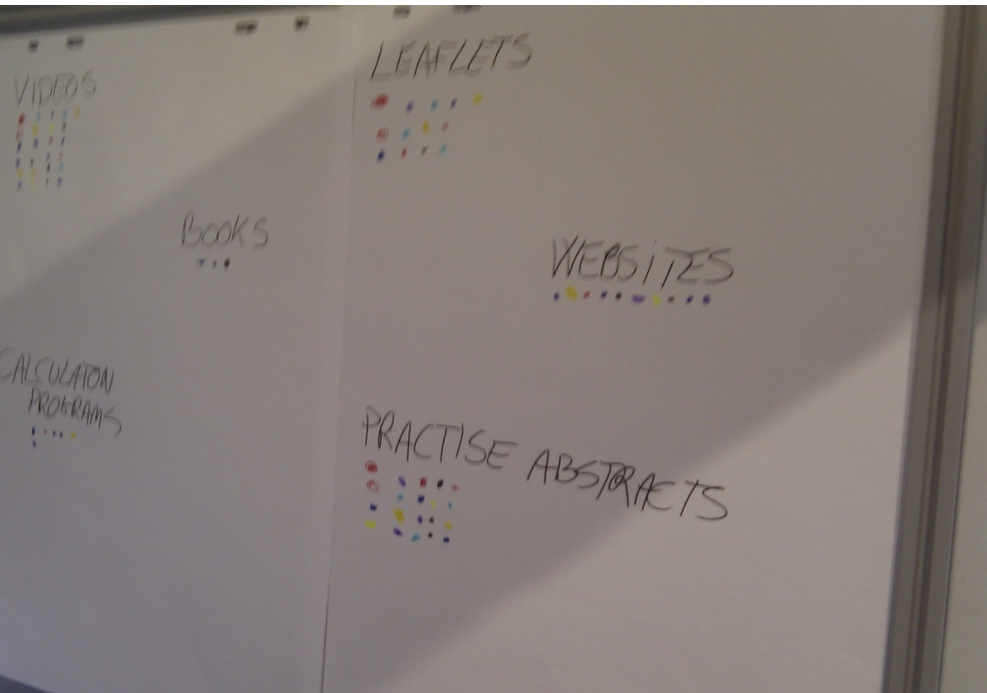
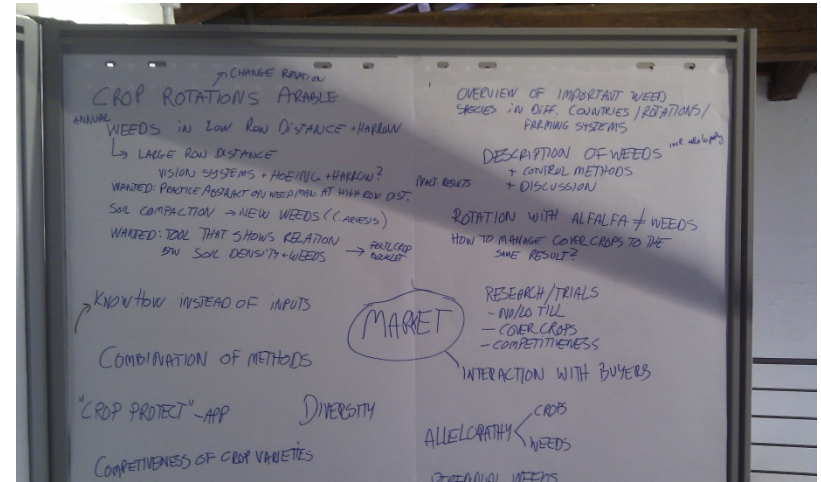


Dialogue between Belgian and
farmers in the OK-Net Arable
6:06



BASE-ABC, a group of French
applying conservation agricult
3:35

Farmer groups discuss and evaluate tools



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

About Organic Knowledge Network Arable (OK-Net Arable)

If you are involved in organic arable farming, the information and knowledge exchange on this site can help you in your daily work.

The OK-Net Arable platform provides access to [a wide range of tools and resources](#) that can help improve production, and a [virtual meeting place](#) for cross-border learning.

The OK-Net Arable knowledge platform promotes exchange of knowledge among farmers, farm advisers, and scientists, with the aim of increasing productivity and quality in organic arable cropping across Europe

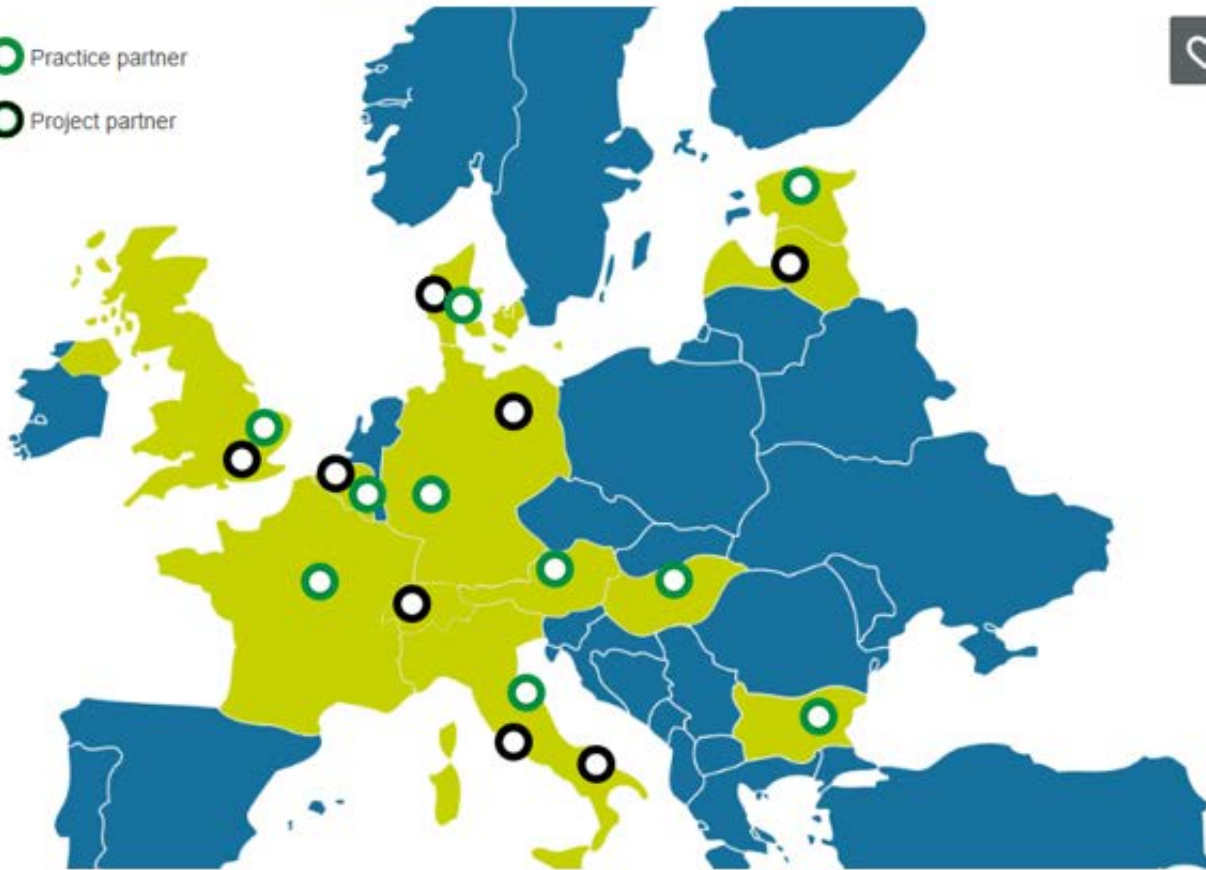
It is the web-based platform for the [OK-Net Arable project](#), which is coordinated by IFOAM EU, and involves 17 partners from 12 European countries, shown below on the map.

The project is financed by Horizon 2020, the EU's main funding instrument for research and innovation.

For more information, please visit www.ok-net-arable.eu.

 Practice partner

 Project partner



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.

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