OK-Net Arable online knowledge platform

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Implications

- Knowledge ready to use
- Tools
- Users
  - Practical experience
  - Research
  - Advisory services
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.
OK-Net Arable - exchange knowledge, enhance organic farming

Search the knowledge base

Number of tools in the database: 96

Browse the knowledge base in one of the five themes

- Soil quality and fertility
- Nutrient management
- Pest and disease control
- Weed management
- Crop specific

Recommended tool 10/05/17
Aerated compost tea (ACT) to improve soil quality and fertility

Latest tool 24/05/17
Controlling potato beetles with Bt

Latest comment
OK-Net Arable Check this practice abstract for the benefits of aerated compost tea (ACT) application, but be aware that it can be costly. A growing body of evidence supports the benefits of aerated compost tea (ACT) application, but further research is needed.

Suggest a tool
Sustainable crop production is dependent on maintaining and improving soil quality and fertility, which are in turn 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 week's 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 croppin...

Visual assessments provide a diagnostic tool to evaluate many physical, biological (a degree chemical) soil 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

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.
OK-Net Arable - exchange knowledge, enhance farming

Browse the knowledge base in one of the five themes:

- Soil quality and fertility
- Nutrient management
- Pest and disease control
- Weed management
- Crop specific

Recommended tool
Aerated compost tea (ACT) to improve soil health and fertility.

Latest tool
Controlling potato beetles with Bt

Latest comment
Check this practice abstract for the benefits of aerated compost tea.
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)

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.
Sædskifte og dens evne til at undertrykke rodukrucht

Forebyggende bekæmpelse af flerårigt ukrucht gennem ukrucht-undertrykkende vekseldrift

Relateret indhold fra Organic Eprints
Link til mere information

Link til værktøj (Dansk)

Gennemsnitlig bedømmelse af værktøj: 0.0  Antal bedømmelser af værktøj: 0

Problem
Problemet med rodukrucht i økologisk planteavl

Løsning
Et godt designet vekseldrift er nøglen til forebyggende bekæmpelse af flerårigt ukrucht.

Beskrivelse
Weed-undertrykke sædskifter er afgørende for en bæredygtig økologisk planteavl. Forebyggelse spredning af rodukrucht vil øge høstdybet og kvalitet. Værktøjet er et faktablad skabt for alle økologiske landmænd, som vi alle har brug for fomyret viden om ukrucht-undertrykkelse og sædskifte.

Anvendelsesområde
Tema
Jordkvalitet og frugtbarhed, Ukrudtsbekæmpelse, Afgrøderspecifik

Sprog
dansk sprog

Vis mere information
Crop rotation and its ability to suppress perennial weeds.

Summary

Weed-suppressing crop rotations are essential for sustainable organic arable farming. Preventing spread of perennial weeds is paramount for organic farmers. 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 local combination of crops and green manures, designed specifically for the conditions and needs of individual fields. It is not just a tool for weed prevention but also provides recommendations in case of high weed pressure. Example: Do not sow a winter crop for a long period of time. Instead, undersow a cover crop in the legumes to hold back the nutrients and sow a competitive crop for a short period.
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Crop rotation and its ability to suppress perennial weeds

**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**

Related content from Organic Eprints
More about the tool on Organic Eprints

Link to the tool (English)
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

![Diagram showing crop selection based on weed competitiveness and nitrogen demand]

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

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

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

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

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

BASE-ABC, a group of French applying conservation agriculture
3:35
Farmer groups discuss and evaluate tools
Farmknowledge.org
- knowledge platform of OK-Net Arable

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• 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/

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