



## D2.6 - Promotion of Smart Practices

(Success stories, expert interviews, Practice Abstracts, as well as videos made available on LIVESEED website and/or the Organic Farm-knowledge Platform)

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## Document Versions

Version	Date	Contributor	Summary of Changes
1.0	5 May 2021	Livia Ortolani, MP Androni, Matteo Petitti	First draft
2.0	26 May 2021	Livia Ortolani, Matteo Petitti	First complete version
3.0	31 May 2021	Livia Ortolani, Matteo Petitti	Final

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## 1. Summary

LIVESEED aims to identify, develop and promote smart practices and teaching materials on organic seed multiplication and production. It places a strong focus on improving practitioners' access to existing technical information and to make it available online in different languages.

Two main channels have been identified in order to make available smart practices for a wider public:

- The project website [www.liveseed.eu](http://www.liveseed.eu)
- The Organic Farm Knowledge Platform, where a specific section on seeds and breeding has been developed within the LIVESEED project activities (within the section on crop production).

Main end users targeted are seed companies, seed multipliers, farmers and advisors concerned by organic seed issues, as well as trainers that will organise courses on organic seed production in their countries. Different kinds of crops are taken into consideration together with different issues from maintenance to multiplication, cleaning and storage aspects.

In order to publish relevant materials for the target audience on the Organic Farm Knowledge platform three main activities were performed within the LIVESEED project:

1. Collecting existing technical materials from LIVESEED partners
2. Developing videos of expert interviews and demonstrations of good practices
3. Developing information materials on success stories based on the LIVESEED cross visits and on national visits, including both Practice Abstracts and Success stories.

This deliverable will present the materials uploaded on the LIVESEED website and on the Organic Farm Knowledge platform.

## 2. Smart Practices on the LIVESEED project website

The LIVESEED project website ([www.liveseed.eu](http://www.liveseed.eu)) has a specific session for "Tools for Practitioners" in which several tools focus on smart practices.

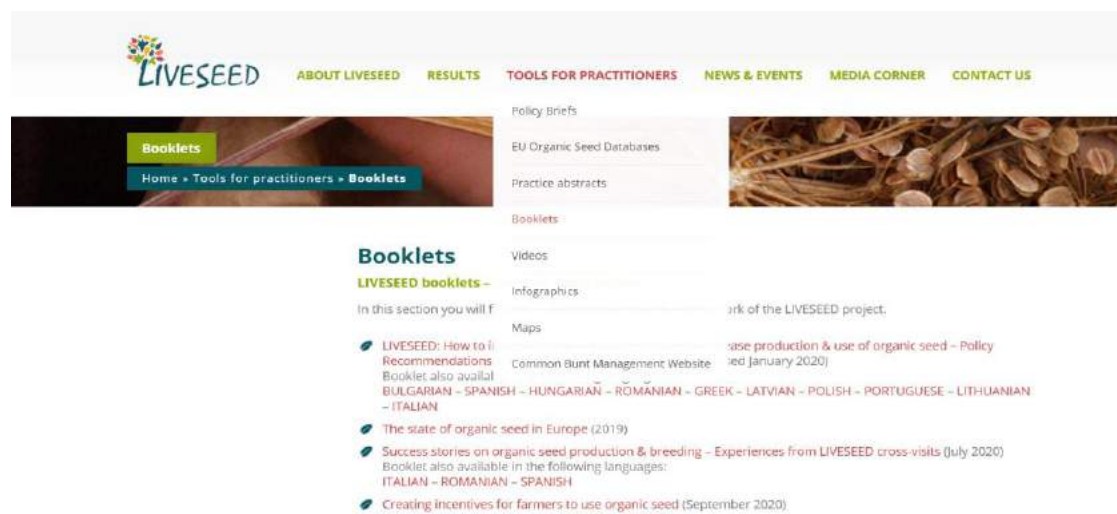


Figure 1 - Screenshot of LIVESEED website's section on "Tools for practitioners"



The section includes different types of documents: Policy briefs, Booklets, Practice Abstracts, Videos, Maps and Infographics. Detailed screenshots on those sections can be found in sections 4, 5, 6 and 7.

In order to improve the promotion of smart practices, part of those documents have been selected to be uploaded in the Organic Farm Knowledge Platform and to be described within this deliverable.

### 3. Development of the seed section on the Organic Farm Knowledge Platform

The LIVESEED project was responsible for developing a new section on the Organic Farm Knowledge Platform in order to facilitate the access to materials related to Organic seeds to the platform users.



Figure 2 - Screenshot of the Organic Knowledge Platform structure with the new section on Seeds and Breeding within the section on Crop Production

The process followed several steps, starting in 2019:

- Identification of 4 sub-themes for the seed section in order to cluster the collected materials
- Identification of Agrovoc keywords relevant for seed issues
- Developing the form for the tool descriptions
- Developing the process to guarantee the quality of the material uploaded

#### 3.1 Identification of the 4 sub-themes

In order to facilitate end users in the identification of tools relevant for their specific interests, four sub-themes have been identified for the seed section of the knowledge platform. Here we report the 4 sub-themes with their description.



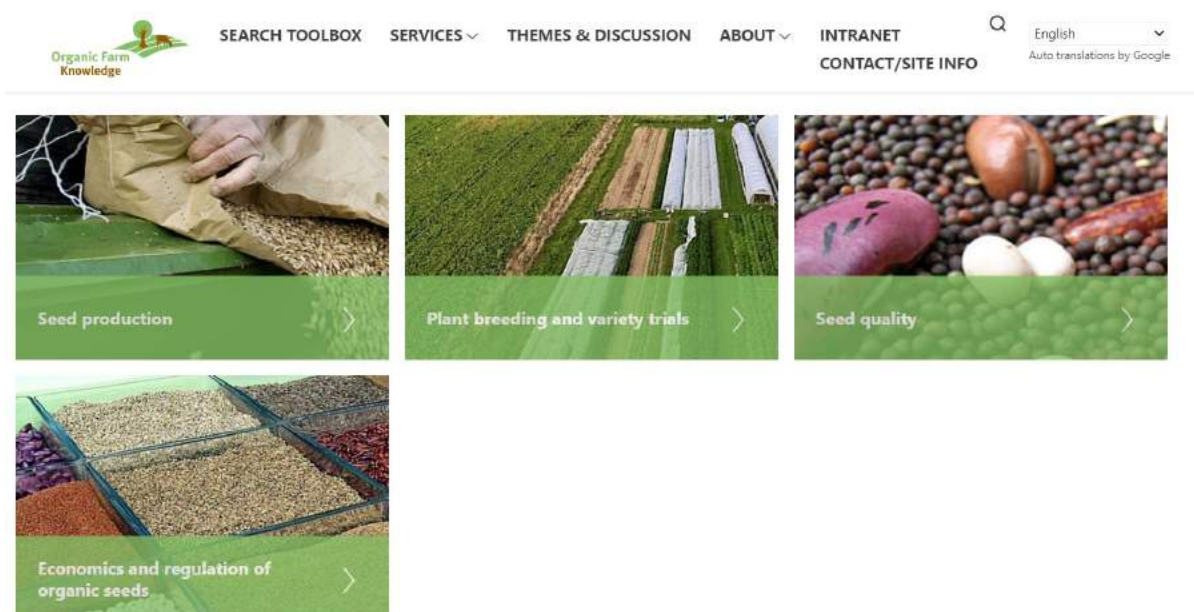


Figure 3 - Screenshot of the 4 sub-themes of the Seeds and Breeding section of Organic Farm Knowledge Platform

### 3.1.1. SEED PRODUCTION

Seed production is a very specialised sector which requires a unique skillset. Producing organic seeds poses specific challenges to the seed grower: seed crops have a much longer cycle than regular crops and are thus more susceptible to pests, diseases and abiotic stress. The production of organic seeds has not only the goal to meet regulatory requirements, but also to improve the performance of the organic sector through a broad offer of quality seed of varieties, which are best suited to the specific conditions of organic farming.

Organically produced seeds that meet the organic values and standards contribute to the ongoing growth of organic farming systems, while supporting agrobiodiversity and the development of healthy ecosystems.

On this page, tools and resources are listed that help improve farmers' knowledge on organic seed production throughout the whole cycle: from seed multiplication for different crops to seed cleaning, processing and storage.

### 3.1.2. PLANT BREEDING AND VARIETIES TRIALS

The vast majority of seeds used in organic production in Europe is based on varieties that were bred for the conventional sector. There are only few varieties that were specifically bred for organic and low-input systems in developed countries. Organic breeding leads to new organic cultivars or populations specifically adapted to organic agriculture. Organic farmers need cultivars and populations that are well adapted to their specific agro-ecological conditions. Desired traits include water and nutrient use efficiency, good weed competition as well as resistance to pests and diseases. Novel breeding concepts and strategies adapted to organic and low-input farming are needed to address the demand for organic seeds.

On this page, information is presented on breeding programmes developed specifically for organic farming, prioritizing different traits required under organic and low-input systems. Farmers will also find here lists of varieties developed in different countries as well as information on novel breeding and screening tools and on holistic breeding concepts.



### 3.1.3. SEED QUALITY

Organic seed multiplication requires time and specific skills to produce high quality, healthy seed. Without chemical inputs and seed treatment, organic seed health and quality start in the field through an integrated approach taking into account the whole ecosystem: soil, pathogens, genetics and seed microbiome. After the harvest, seed cleaning and selection are fundamental to choose the best quality seed with the highest germination rate and vigour. Seed testing is required.

On this page, we enlisted tools and resources that help monitor and improve the quality and health of organic seeds, including available organic treatments for seed borne pests and diseases.

### 3.1.4. ECONOMICS AND REGULATIONS OF ORGANIC SEEDS

The current European seed marketing regulatory framework represents a major bottleneck for the development and the registration of organic cultivars. The new EU organic regulation, introducing organic varieties and organic heterogeneous material, shall propose adapted rules and protocols for registration.

The economics of seed production and marketing are quite different in an organic regime compared to conventional. Lower yields and higher risks of crop failure require appropriate business models to ensure fair prices to seed-producing farmers. Similarly, financing organic plant breeding requires innovative approaches, encompassing the smaller seed market share and the higher number of varieties needed in the sector.

On this page, information and updates on the economics and regulations connected to organic seeds are collected, including contracting process and certification of organic seeds as well as information on availability of organic seeds on the market and other market issues.

## 3.2 Identification of Agrovoc keywords relevant for seed issues

**AGROVOC** is the largest Linked Open Data set about agriculture available for public use and facilitates access and visibility of data across domains and languages. It offers a structured collection of agricultural concepts, terms, definitions and relationships which are used to unambiguously identify resources, allowing standardized indexing processes and making searches more efficient.

**AGROVOC** uses semantic web technologies, linking to other multilingual knowledge organization systems and building bridges between datasets.

This source was used to identify keywords for each sub-themes that allow the materials uploaded on the knowledge platform to be automatically assigned to each subtheme.

A first set of agrovoc keywords was proposed and among that, FiBL, who is the editor of the Organic Farm Knowledge Platform, selected the following final keywords. Keywords selected by FiBL are listed in Table 1.

#### First keywords proposed by Rete Semi Rurali:

##### A - Organic Seed Production, Seed Cleaning, processing and storage

seeds, seed production, propagation material, seed crops, hybrid seed production, genetic diversity (as resource), seed storage life, seed storage, seed cleaning, seed cleaners, postharvest equipment, germplasm

Organic E-prints: production systems, crop husbandry,



### B - Seed quality and health under organic management

seed quality, germinability, seed longevity, seed treatment, biological disease control, disease prevention, genetic control,

Organic E-prints: Crop health, quality, protection; postharvest management and techniques

### C – Organic Plant Breeding and variety trials

seeds, plant breeding, breeding methods, breeders' seeds, seed mixtures, seed characteristics, seed testing, selection criteria, breeding lines, genotypes, crop improvement, genomic features, genetic markers, genetic resources, germplasm, genetic resistance, varieties,

Organic E-prints: breeding, genetics, and propagation

### D – Economics and Regulation of organic seeds (including contracting, certification and market issues)

seeds, certified seeds, seed certification, registration, seed industry, gene banks, community seed bank,

Organic E-prints: food systems, Policy environments and social economy, Market and trade, Networks and ownership, Values, standards and certification, Regulation

*Table 1 - Final list of keywords selected by FiBL for the Organic Farm Knowledge Platform*

Section	Themes	Keywords
Seeds and Breeding		Seeds
	Seed production	Seed production; Seed characteristics; Seed treatment
	Seed quality	Seed quality; Seed storage; Genetic control; Germinability
	Plant breeding and variety trials	Seed testing; Plant breeding; Selection criteria; Varieties; Genetic diversity (as resource); Genetic markers; Genetic resistance; Genetic resources; Genotypes; Germplasm; Breeding methods
	Economics and regulation of organic seeds	Seed certification; Seed industry; Gene banks

## 3.3 Developing the form for the seed tool description

Starting from the existing form for tool description of the Organic Farm Knowledge Platform, in 2019 RSR adapted it to the needs of the tools collected and developed by the LIVESEED project.

In April 2021, FiBL-CH developed a new tool description form common to all sections of the knowledge platform as the whole platform was re-organized.

Original and new tool description forms can be found in Annex I of this document.



### 3.4 Developing the process to guarantee the quality of the material uploaded

The figure 4 below presents the process that was followed in order to decide if one specific material was suitable for the Organic Farm Knowledge Platform or not.

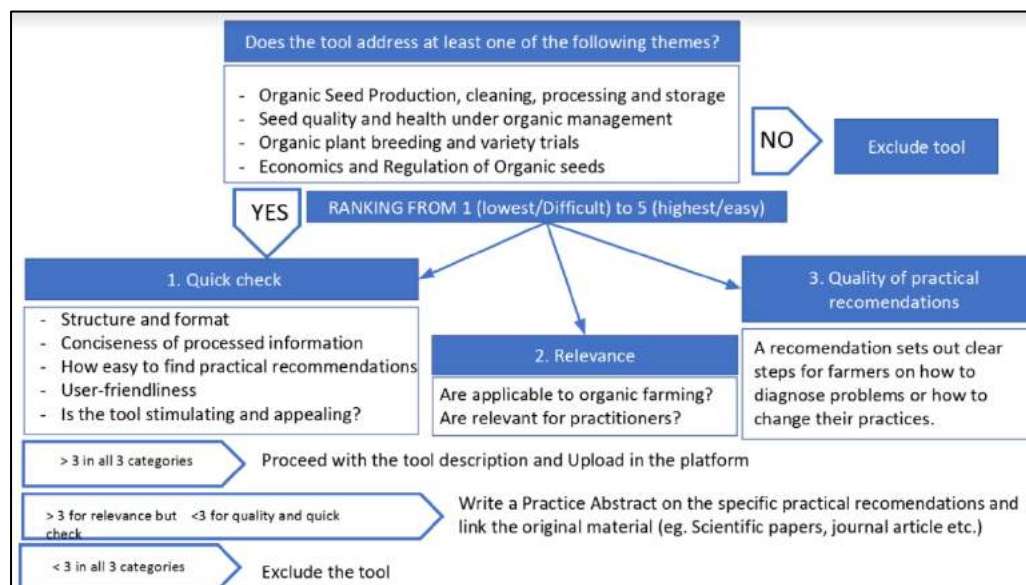


Figure 4 - The process to select tools to be uploaded on the Organic Farm Knowledge Platform

## 4. Technical material collected from LIVESEED partners

The 2.2.2 subtask of the LIVESEED projects focused on the collection of existing technical material on seeds already available in Europe, including national languages materials.

The process was carried out in the following steps:

- Survey with all LIVESEED partners in order to ask if they are aware of relevant materials in their language on seed production, quality, breeding etc.
- All partners that in the survey said to have available material were directly contacted by Rete Semi Rurali with a specific online call, using Skype, in order to further discuss the material, they want to propose and identify if it was suitable or not for the target audience of the project.
- The tools that resulted to be valid were sent to Rete Semi Rurali.
- Rete Semi Rurali filled in the tool description for each tool and uploaded them on Organic E-print database, which allow to make them visible on the Organic Farm Knowledge Platform

Table 2 (next page) presents the final list of the tools that were selected and make available online:





*Table 2 – list of existing materials collected from LIVESEED partners and suitable for the Organic Farm Knowledge Platform*

N.	Title	Partner	Language
1	Tools to integrate organoleptic quality criteria into breeding programs	ITAB	French
2	SortInfo	SEGES	English/Danish
3	Producing alfalfa seeds for organic agriculture	ITAB	French
4	Producing zucchini seeds for organic agriculture	ITAB	French
5	Innovative techniques for seed treatments compatible with organic farming	ITAB	French
6	Producing red clover seeds for organic agriculture	ITAB	French
7	Producing cabbage seeds for organic agriculture	ITAB	French
8	Producing carrot seeds for organic agriculture	ITAB	French
9	Producing cereal seeds for organic agriculture	ITAB	French
10	Managing common bunt	ITAB	French
11	Producing forage crop seeds for organic agriculture: evolving techniques	ITAB	French
12	Producing lettuce seeds for organic agriculture	ITAB	French
13	Variétés des céréales en agriculture biologique - mémento blé tendre d'hiver 2019	ITAB	French
14	Concerning Brassica vegetables ...	ITAB	French
15	Ancestral wheat	AEGILOPS	Greek
16	Our heritage vegetables	AEGILOPS	Greek
17	Agricultural biodiversity: Meaning and role for the producer	AEGILOPS	Greek
18	Resistant varieties for fruit growers - Malidae group	OMKI	Hungarian
19	Pepper ( <i>Capsicum annum</i> L.)	RSR	Italian
20	Aubergine ( <i>Solanum melogena</i> L.)	RSR	Italian
21	The main diseases of Solanaceae transmitted by seeds	RSR	Italian
22	Solanaceae	RSR	Italian
23	Potato ( <i>Solanum tuberosum</i> L.)	RSR	Italian
24	Tomato ( <i>Lycopersicon esculentum</i> Mill.)	RSR	Italian
25	Grain Pea in Organic Farming	CREA	Italian
26	Producing onion seeds for organic agriculture	ITAB	French
27	Functional compounds of einkorn and emmer genotypes	ATK	English
28	Comparison of bread wheat varieties with different breeding origin under organic and low input management	ATK	English
29	The identification of wheat genetic resources with high dietary fiber content	ATK	English
30	Diversity and Participatory Research for Organic Agriculture	INRA	English
31	Effect of Organic Cultivation in Landrace of Pepper	UNIVAL	English
32	Methods and tools for decentralized breeding	ITAB	English
33	A guide to participatory experimentation with underutilized generic resources	ITAB	English
34	Toolkit to foster multi actor research on agrobiodiversity	ITAB	English



More practice tools have been collected by Rete Semi Rurali that have not yet included on the platform, but will be uploaded at a later stage.

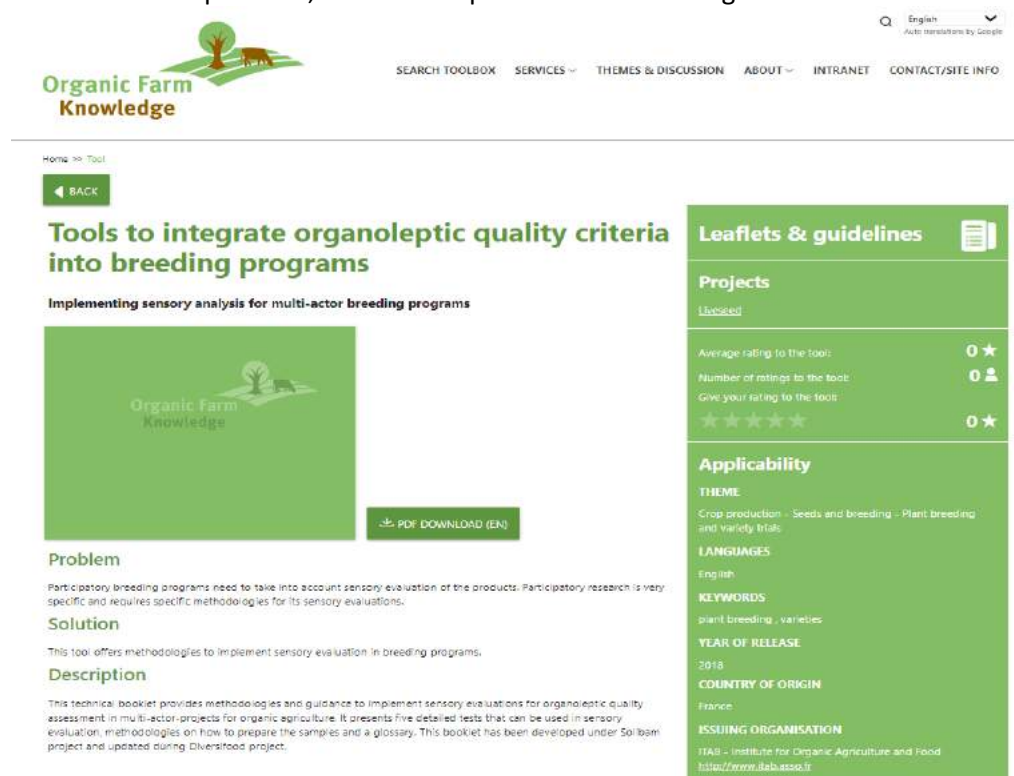


Figure 5 - Screenshot of tool 1 on OFK Platform

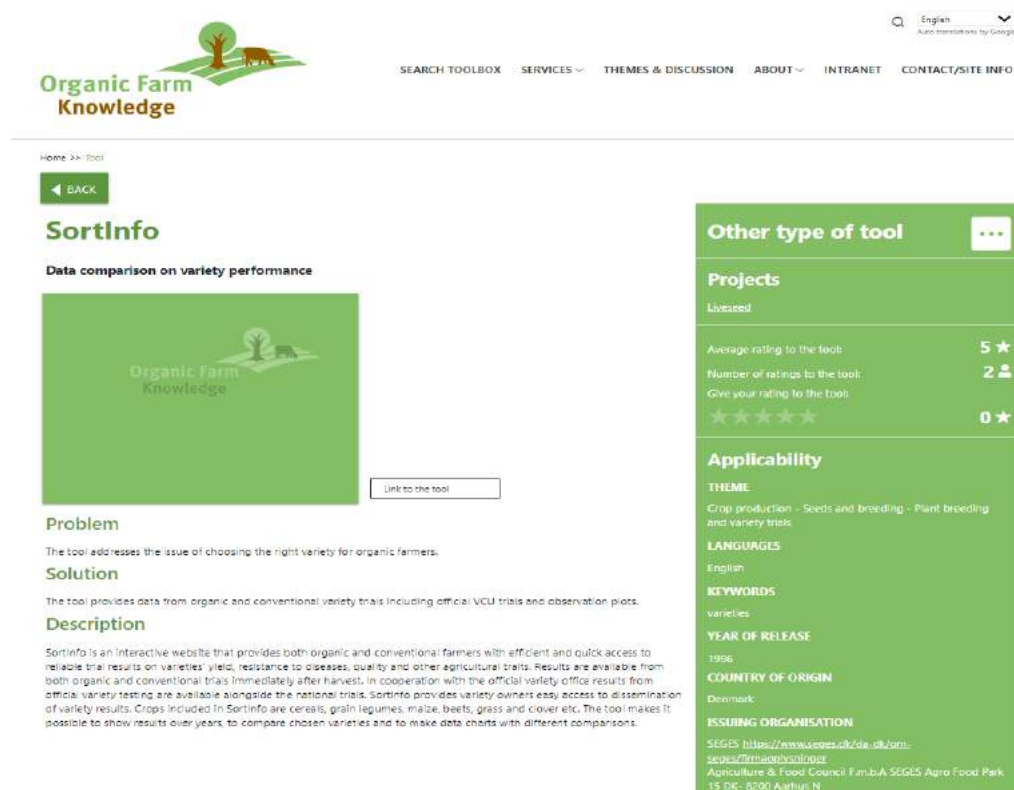


Figure 6 - Screenshot of tool 2 on OFK platform



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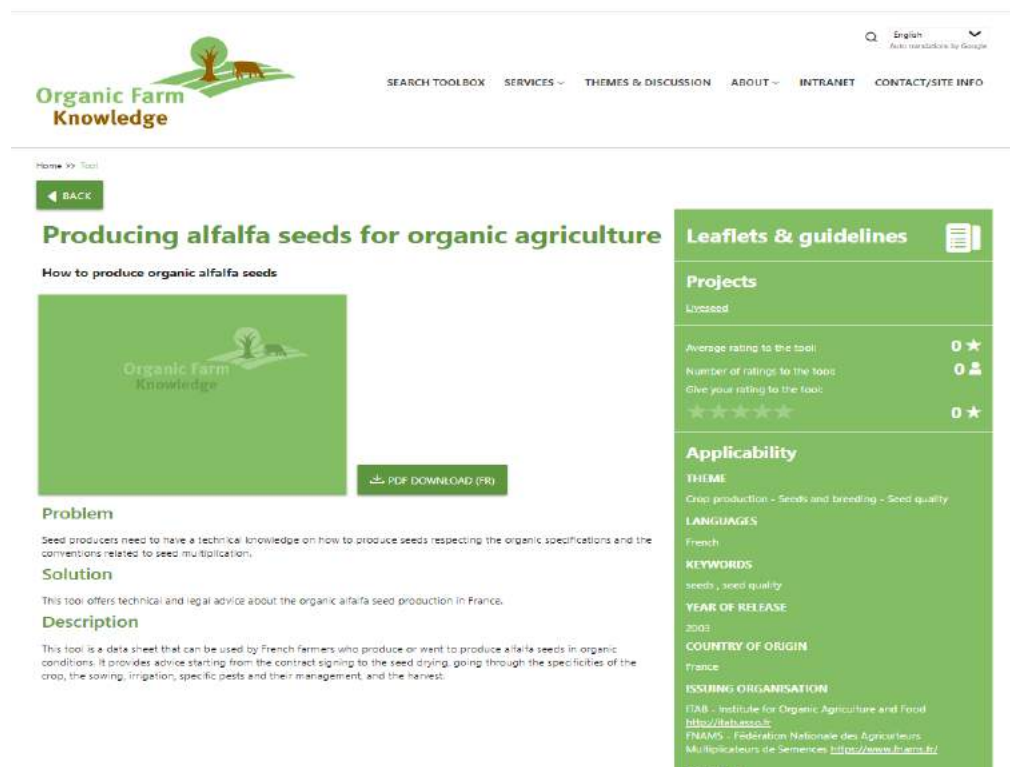


Figure 7 - Screenshot of tool 3 on OFK platform

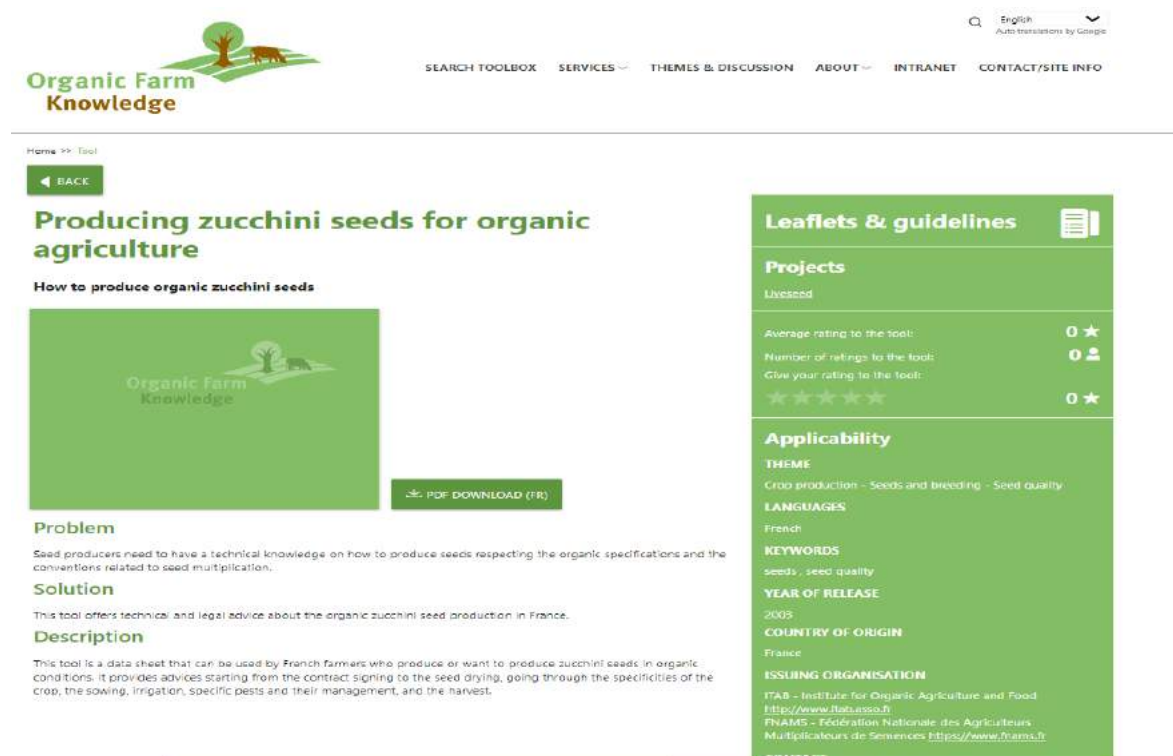


Figure 8 - Screenshot of tool 4 on OFK platform



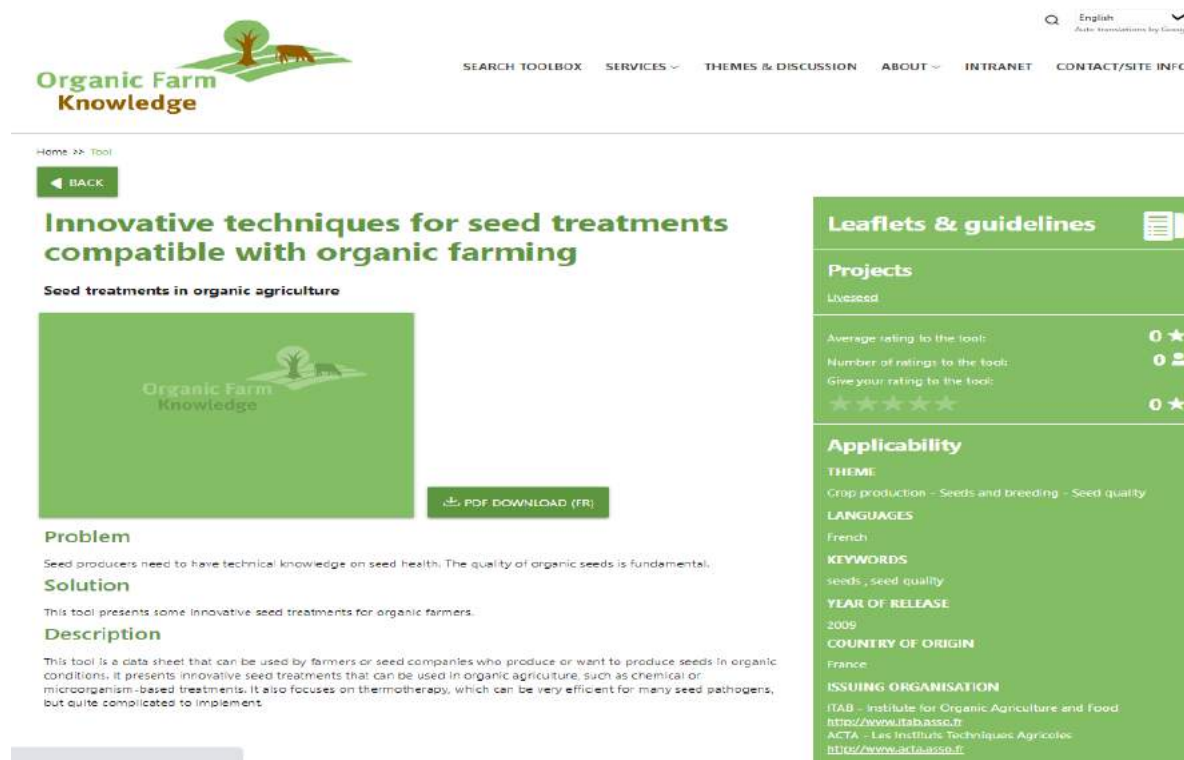


Figure 9 - Screenshot of tool 5 on OFK platform

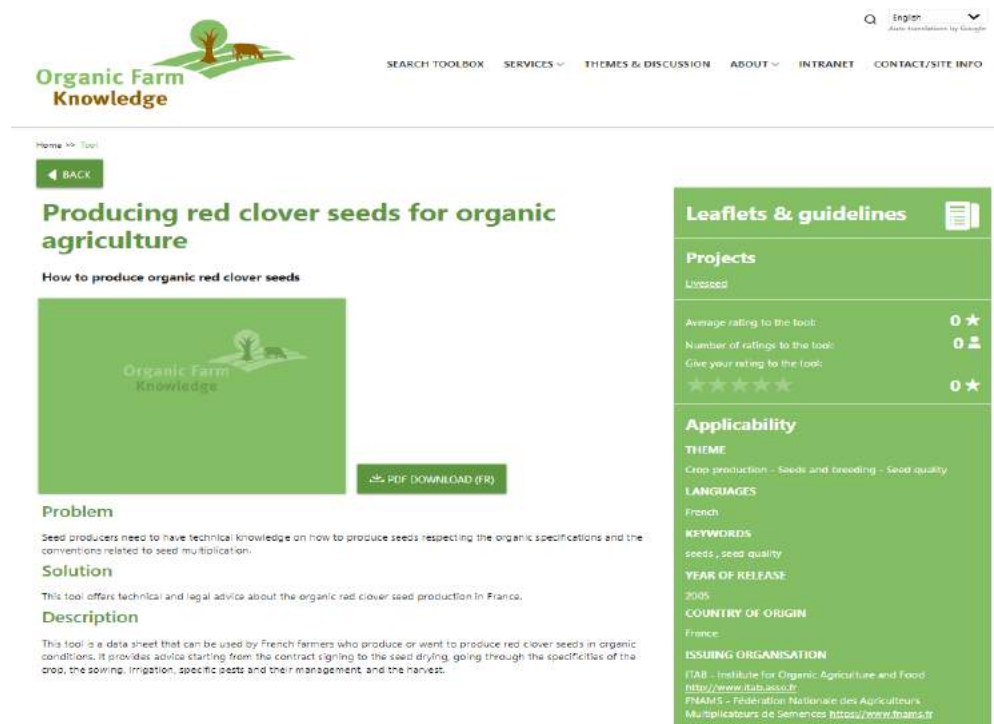


Figure 10 - Screenshot of tool 6 on OFK platform



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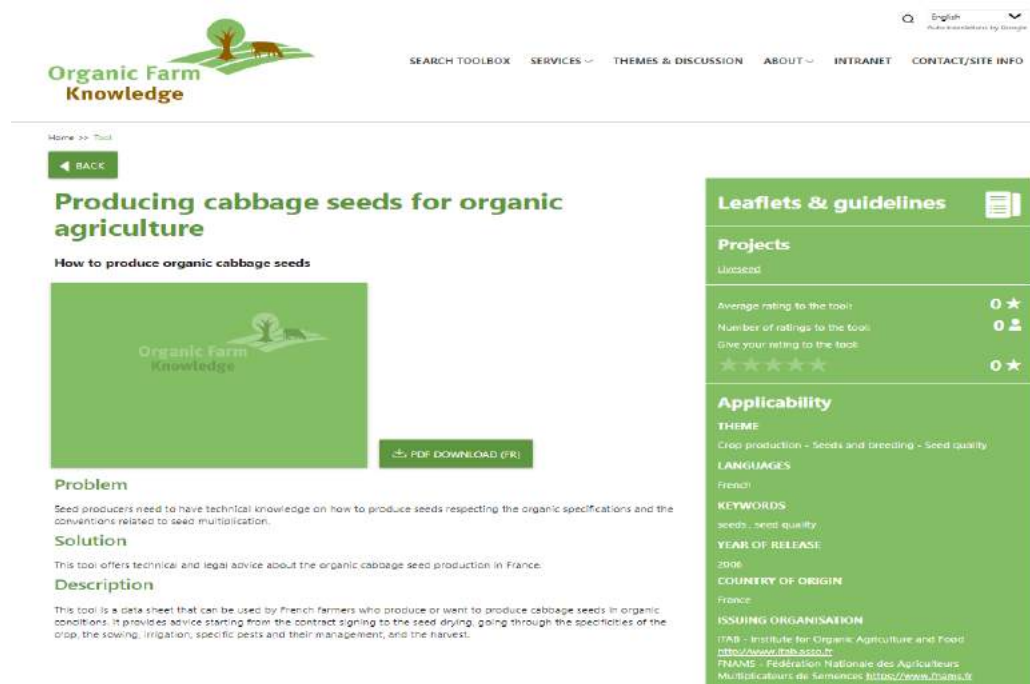


Figure 11 - Screenshot of tool 7 on OFK platform

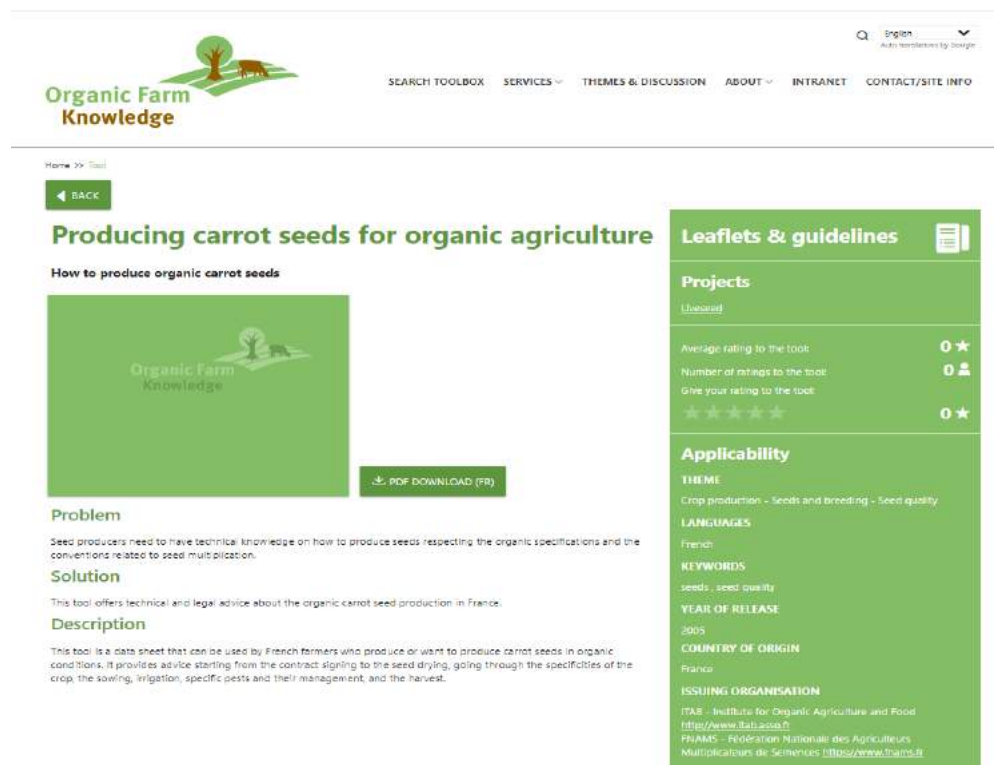


Figure 12 - Screenshot of tool 8 on OFK platform



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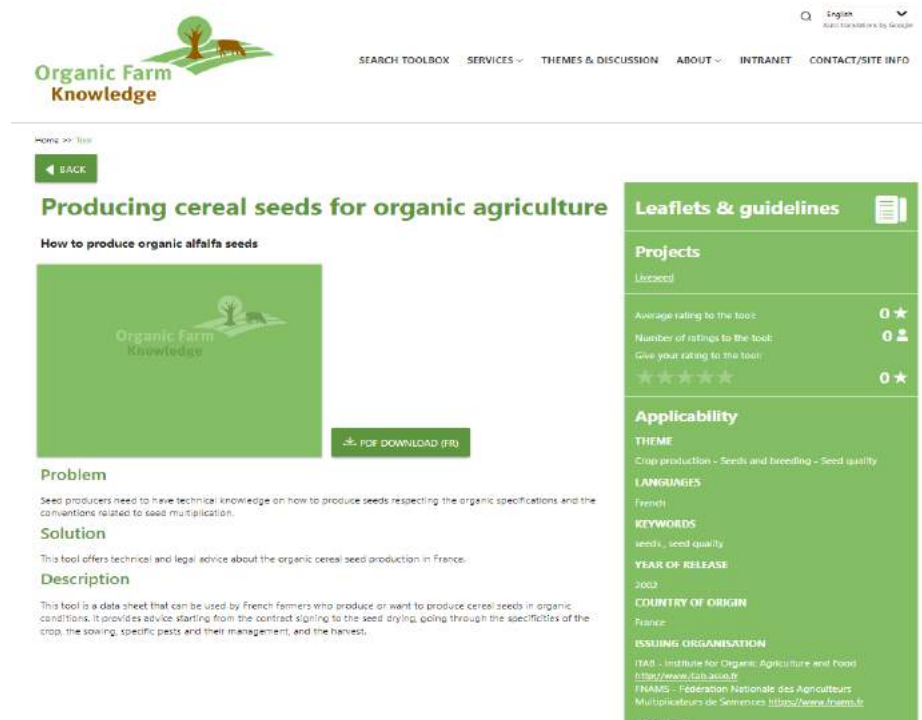


Figure 13 - Screenshot of tool 9 on OFK platform

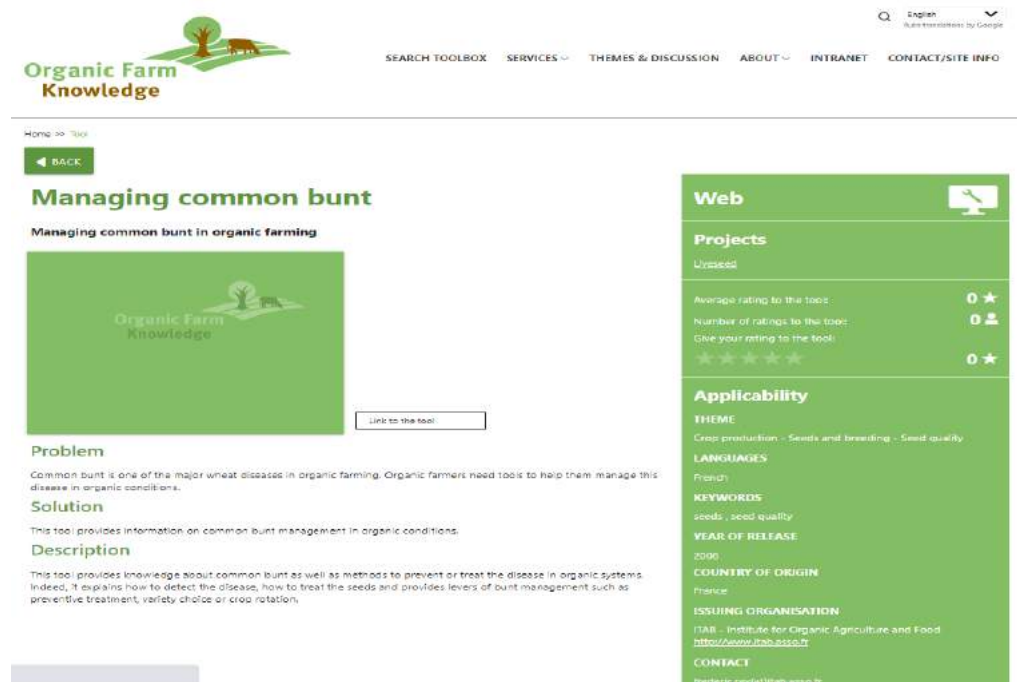


Figure 14 - Screenshot of tool 10 on OFK platform



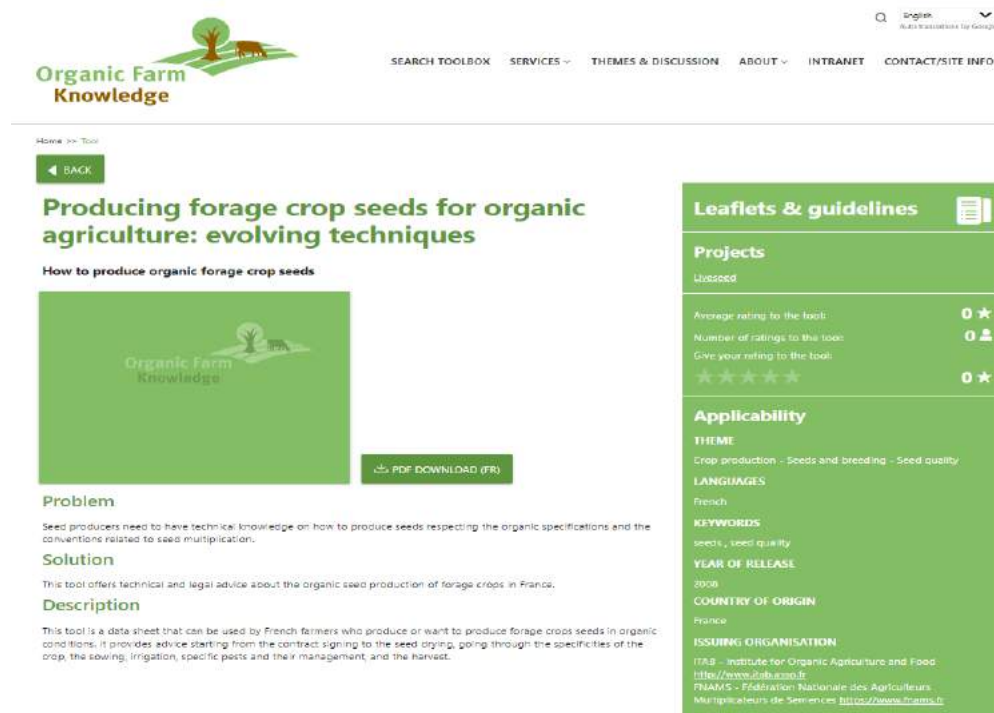


Figure 15 - Screenshot of tool 11 on OFK platform

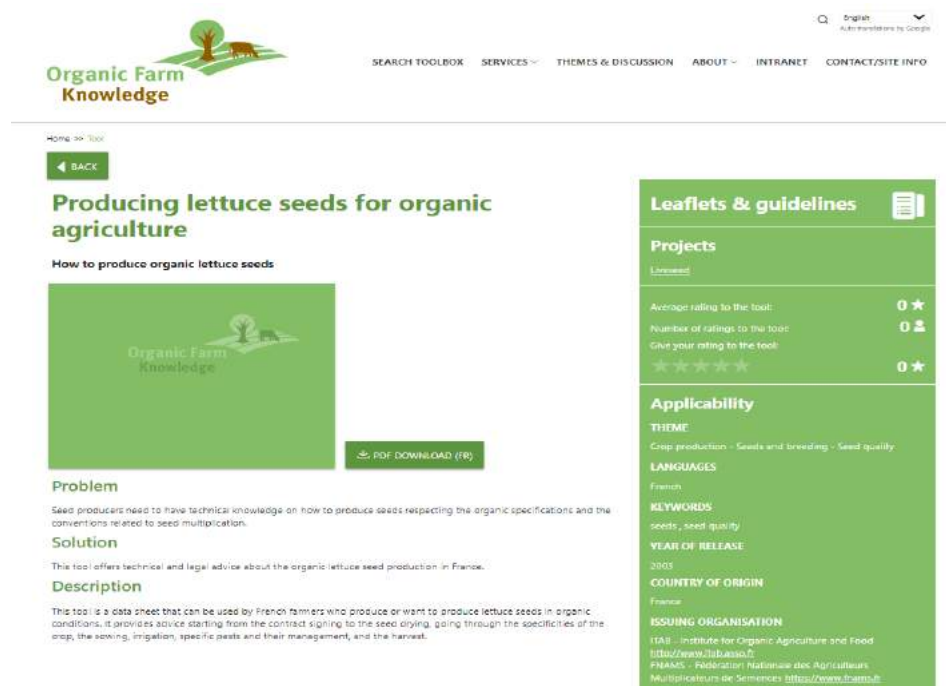


Figure 16 - Screenshot of tool 12 on OFK platform



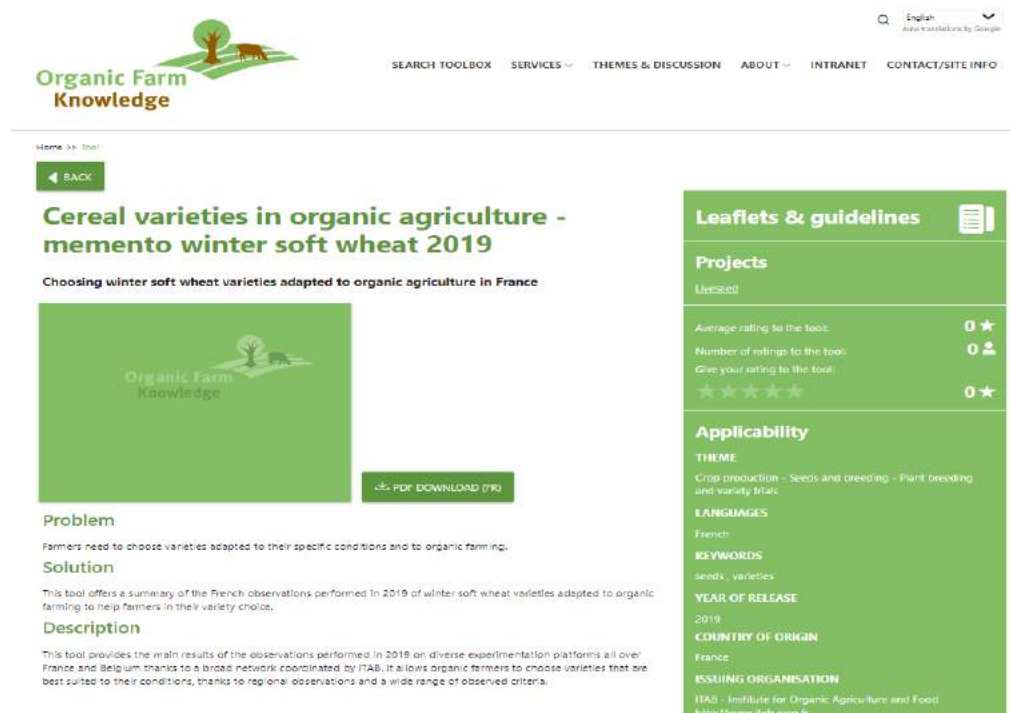


Figure 17 - Screenshot of tool 13 on OFK platform

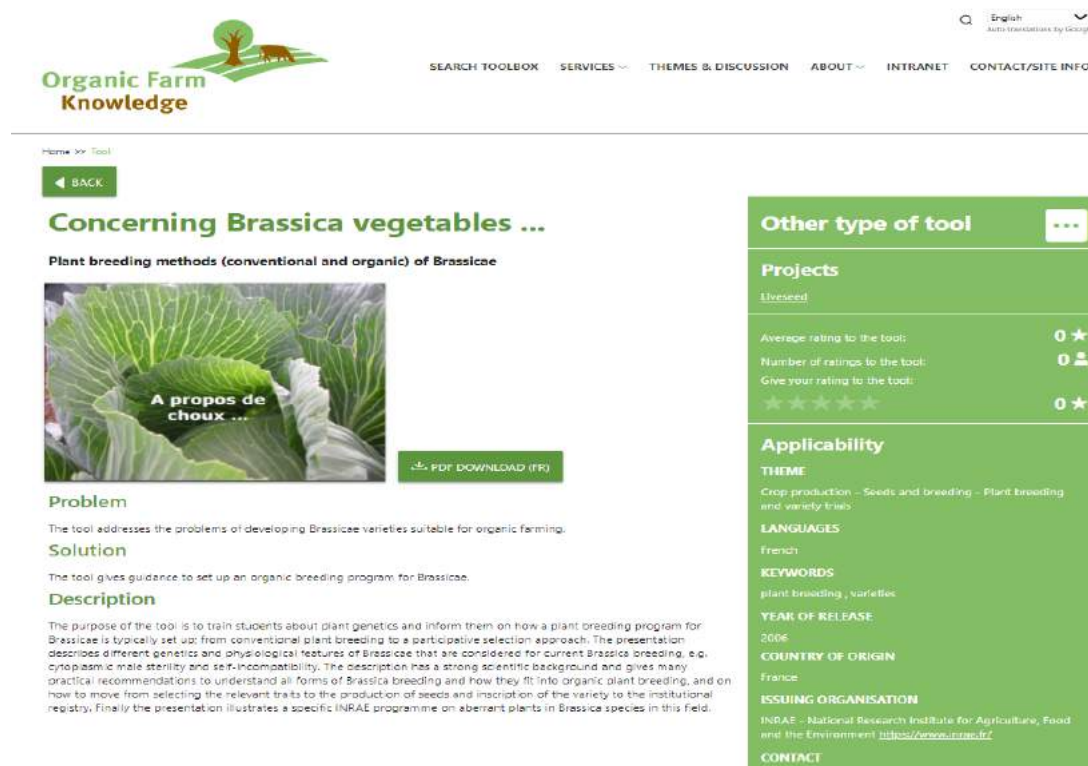


Figure 18 - Screenshot of tool 14 on OFK platform





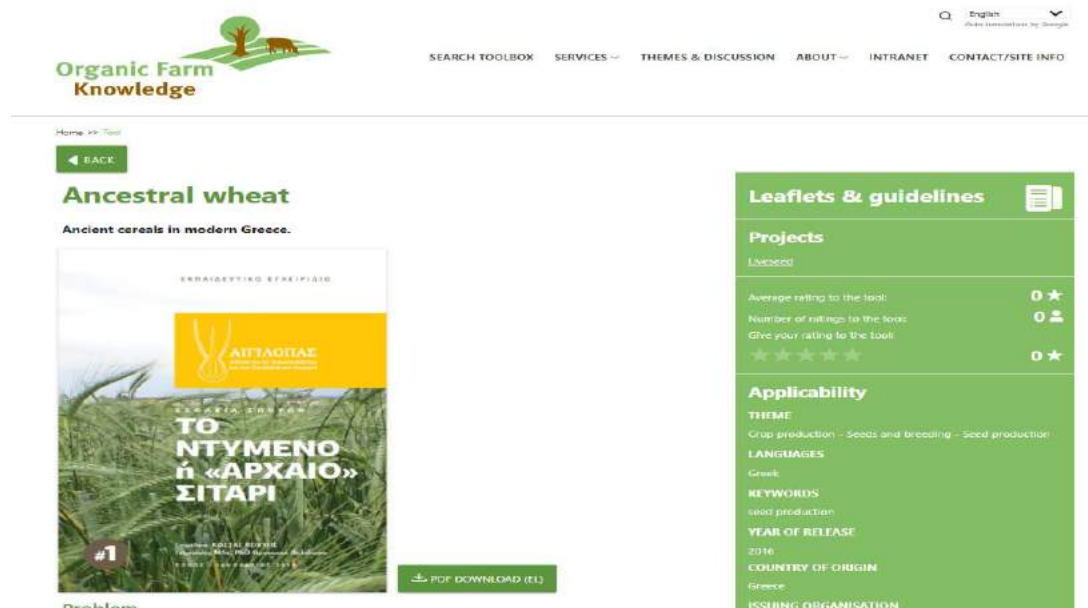


Figure 19 - Screenshot of tool 15 on OFK platform

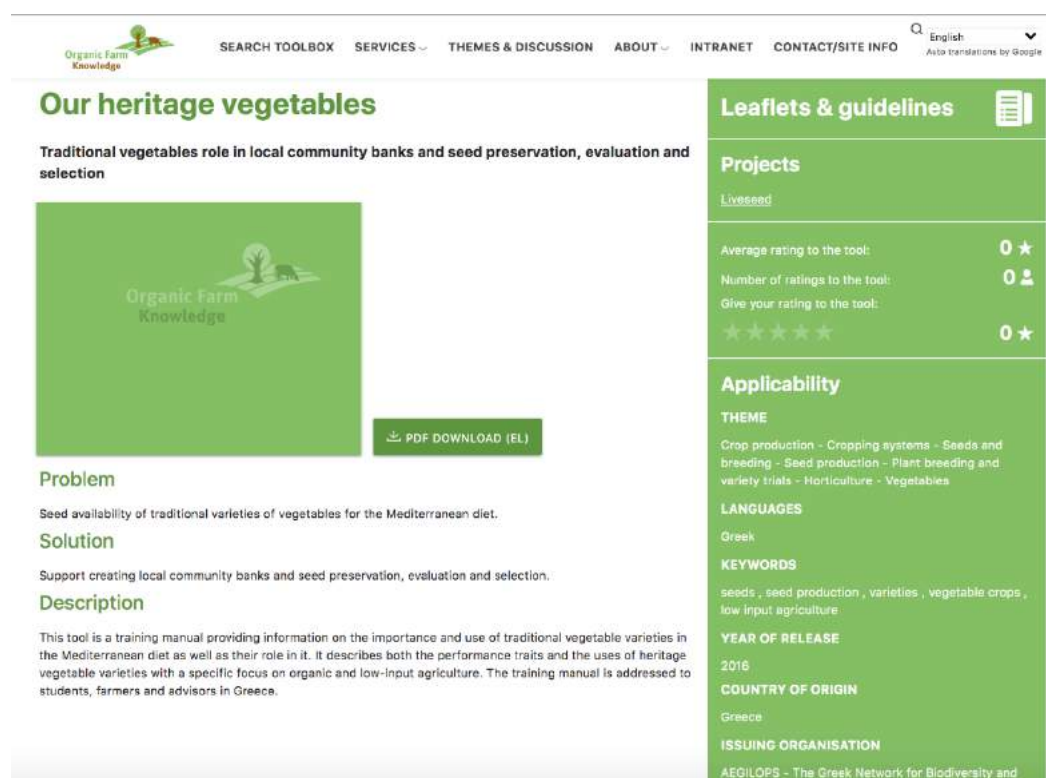


Figure 20 - Screenshot of tool 16 on OFK platform



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The screenshot shows the 'Organic Farm Knowledge' website interface. The main content area features a green header with the title 'Agricultural biodiversity: Meaning and role for the producer' and a sub-header 'The importance of agrobiodiversity in our farming systems'. Below this is a green box with a tree and cow icon, a 'PDF DOWNLOAD (EL)' button, and sections for 'Problem', 'Solution', and 'Description'. A right-hand sidebar contains 'Leaflets & guidelines', 'Projects' (with a 'Unseed' link), and 'Applicability' details including theme, languages, keywords, year of release (2016), country of origin (Greece), and issuing organization (AEGILOPS).

Figure 21 - Screenshot of tool 17 on OFK platform

The screenshot shows the 'Organic Farm Knowledge' website interface for tool 18. The main content area features a green header with the title 'Resistant varieties for fruit growers - Malidae group' and a sub-header 'Identify resistant fruit varieties suitable for low input production.'. Below this is a green box with a tree and cow icon, a 'PDF DOWNLOAD (HU)' button, and sections for 'Problem', 'Solution', and 'Description'. A right-hand sidebar contains 'Leaflets & guidelines', 'Projects' (with a 'Unseed' link), and 'Applicability' details including theme, languages, keywords, year of release (2014), country of origin (Hungary), and issuing organization (OMK).

Figure 22 - Screenshot of tool 18 on OFK platform



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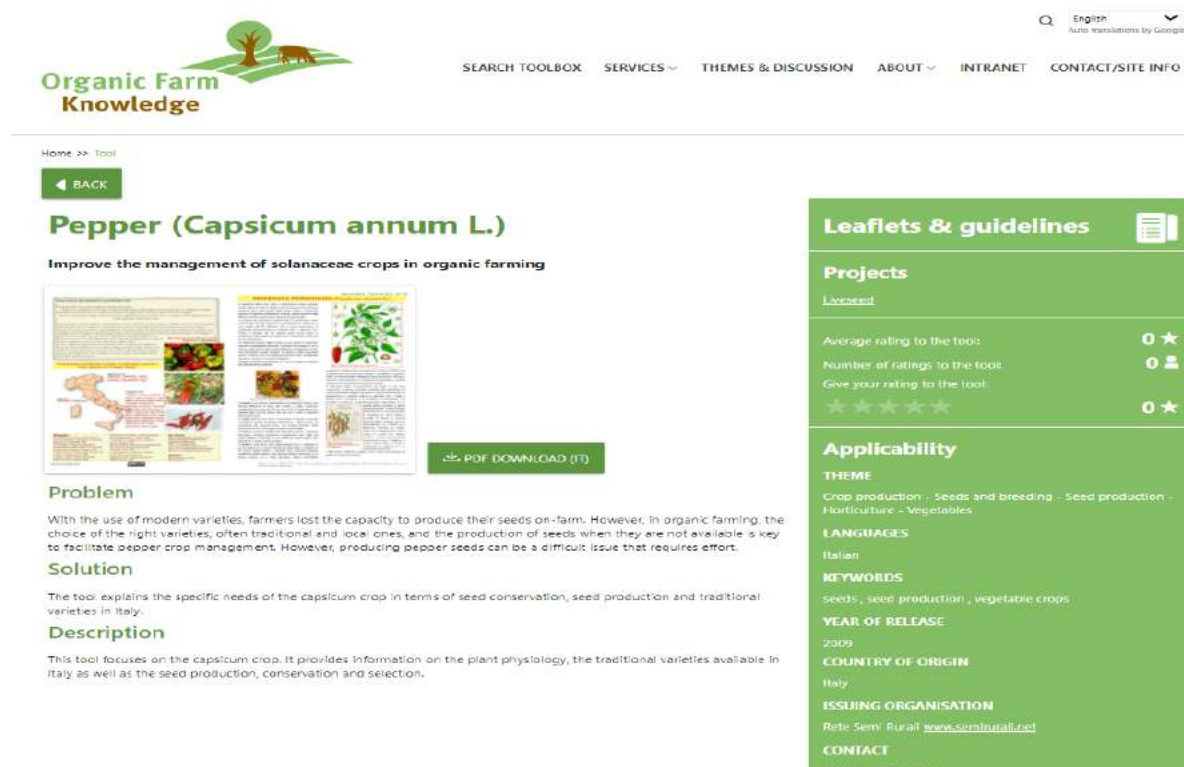


Figure 23 - Screenshot of tool 19 on OFK platform



Figure 24 - Screenshot of tool 20 on OFK platform



The screenshot shows the Organic Farm Knowledge website interface. At the top, there is a search bar and navigation menu. The main content area features a tool titled "The main diseases of Solanaceae transmitted by seeds" with a sub-heading "Improve the management of solanaceae crops in organic farming". A thumbnail image of a table is displayed, along with a "PDF DOWNLOAD (IT)" button. The tool description includes sections for "Problem", "Solution", and "Description". On the right side, there is a sidebar with "Leaflets & guidelines", "Projects" (listing "Liveseed" with 0 ratings), and "Applicability" (listing theme, languages, keywords, year of release, and country of origin).

Figure 25 - Screenshot of tool 21 on OFK platform

The screenshot shows the Organic Farm Knowledge website interface for tool 22, titled "Solanaceae" with the sub-heading "Improve the management of solanaceae crops in organic farming". A thumbnail image of a document is shown with a "PDF DOWNLOAD (IT)" button. The tool description includes sections for "Problem", "Solution", and "Description". The right sidebar is similar to Figure 25, showing "Projects" (listing "Liveseed" with 0 ratings) and "Applicability" details.

Figure 26 - Screenshot of tool 22 on OFK platform



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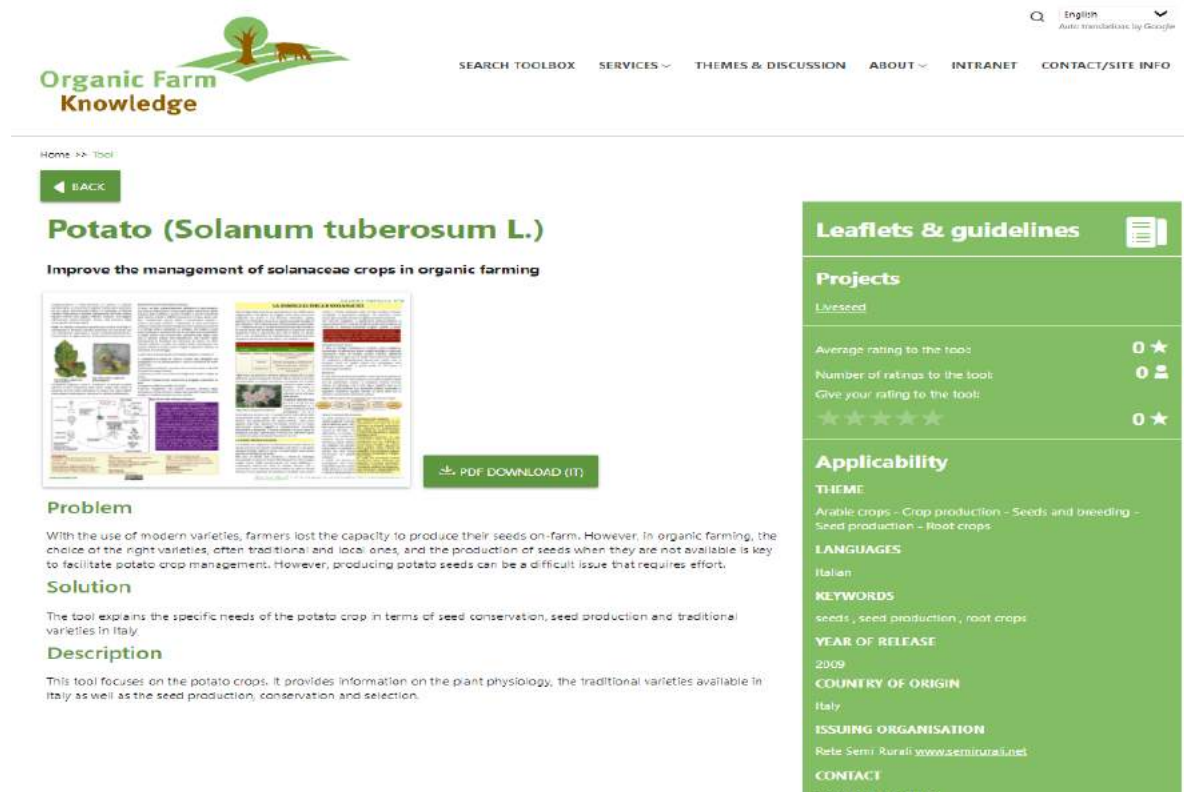


Figure 27 - Screenshot of tool 23 on OFK platform



Figure 28 - Screenshot of tool 24 on OFK platform



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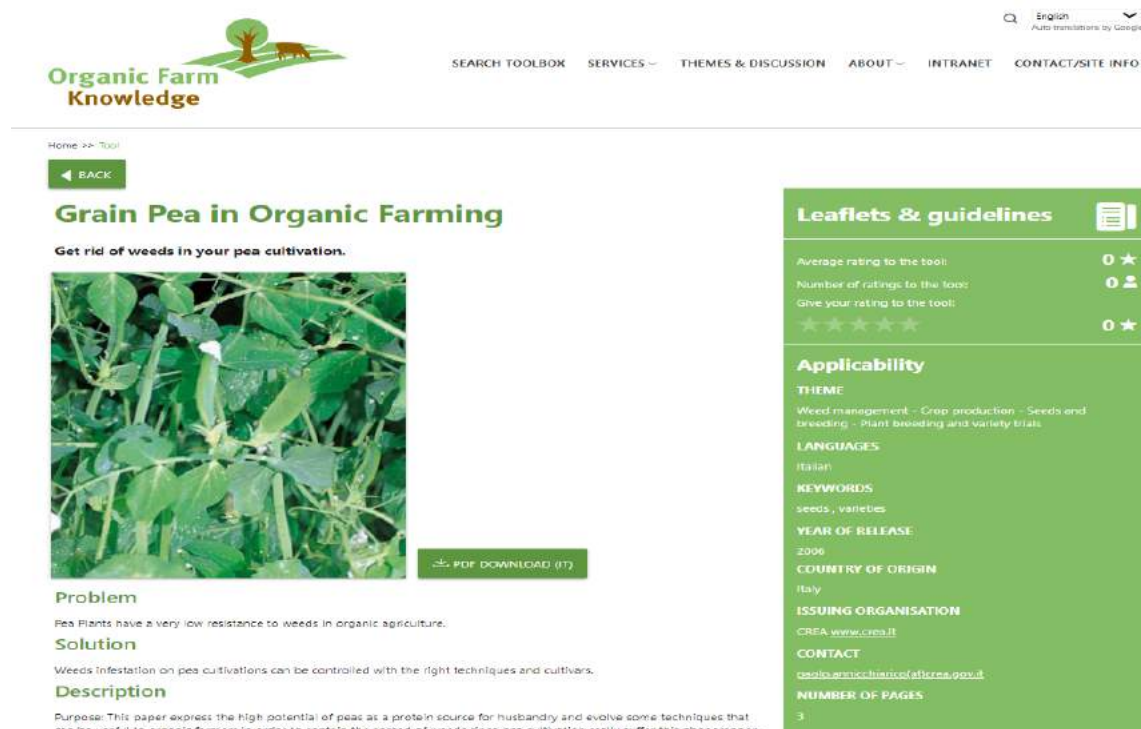


Figure 29 - Screenshot of tool 25 on OFK platform

PRODUCING ONION SEEDS

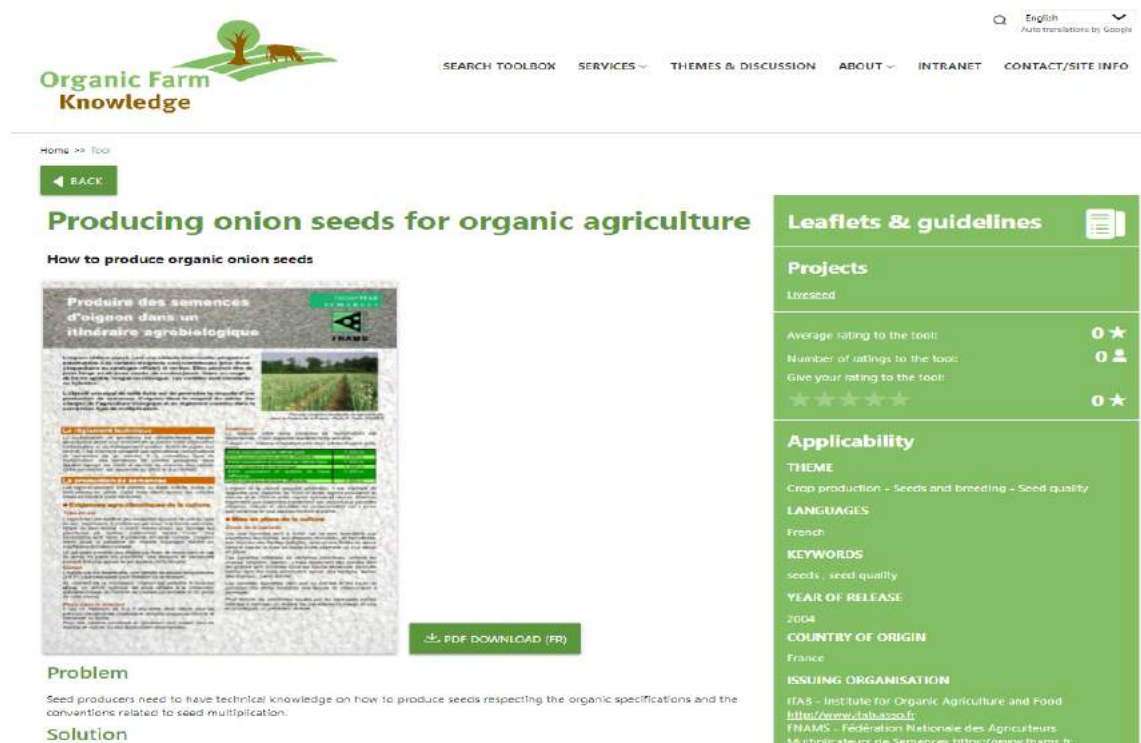


Figure 30 - Screenshot of tool 26 on OFK platform



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## Functional compounds of einkorn and emmer genotypes

Neglected species, such as einkorn and emmer are worthy of growing in low input fields as they can be used for the production of high-value functional food.



PDF DOWNLOAD (EN)

Problem

### Other type of tool

#### Projects

Liveseed

Average rating to the tool: 0 ★

Number of ratings to the tool: 0

Give your rating to the tool:

★★★★★ 0 ★

#### Applicability

##### THEME

Crop production - Seeds and breeding - Plant breeding and variety trials

##### LANGUAGES

English

##### KEYWORDS

seeds ; plant breeding ; varieties

##### YEAR OF RELEASE

2014

##### COUNTRY OF ORIGIN

Hungary

Figure 31 - Screenshot of tool 27 on OFK platform

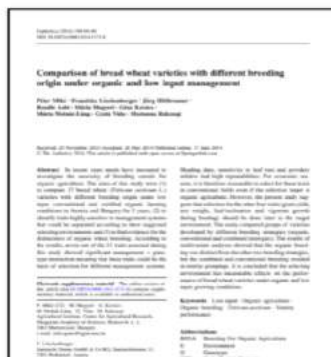


Home >> Tool

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## Comparison of bread wheat varieties with different breeding origin under organic and low input management

New varieties are on the horizon for organic farmers. More specific selection method for organic wheat breeders.



PDF DOWNLOAD (EN)

Problem

### Other type of tool

#### Projects

Liveseed

Average rating to the tool: 0 ★

Number of ratings to the tool: 0

Give your rating to the tool:

★★★★★ 0 ★

#### Applicability

##### THEME

Crop production - Seeds and breeding - Plant breeding and variety trials

##### LANGUAGES

English

##### KEYWORDS

seeds ; plant breeding ; varieties

##### YEAR OF RELEASE

2014

##### COUNTRY OF ORIGIN

Hungary

##### ISSUING ORGANISATION

Figure 32 - Screenshot of tool 28 on OFK platform



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Figure 33 - Screenshot of tool 29 on OFK platform



Figure 34 - Screenshot of tool 30 on OFK platform



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Figure 35 - Screenshot of tool 31 on OFK platform

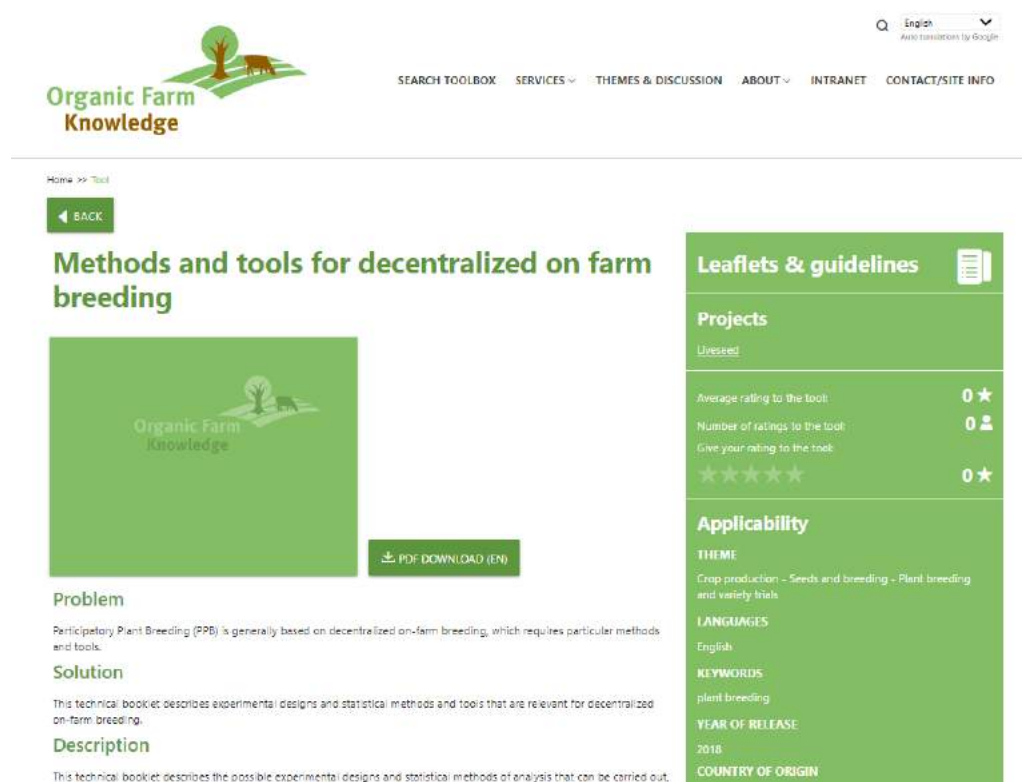


Figure 36 - Screenshot of tool 32 on OFK platform



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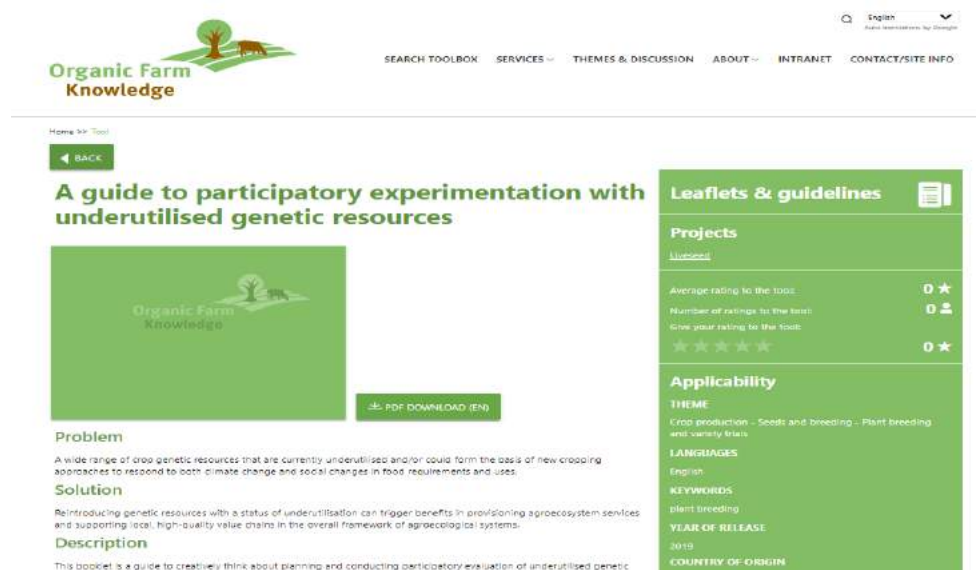


Figure 36 - Screenshot of tool 33 on OFK platform



Figure 37 - screenshot of tool 34 on OFK platform



## 5. Videos with expert interviews and demonstration of good practices

LIVESEED produced several videos with expert interviews on specific topics and demonstration of good practices in WP5. All those materials were put available online on the LIVESEED project website and on the Organic Farm knowledge platform.

*Table 3 – List of videos with expert interviews and demonstration of good practices*

N.	Title	Partner	WP
1	Bunt control strategies - Anders Borgens	OMKI/RSR	WP5
2	Demonstration brush seed cleaning - Anders Borgens	OMKI/RSR	WP5
3	Saving and Storing Tomato Seeds - Adrian Rodriguez Burruezo	SEAE/UPV	WP3
4	Community seed bank - Bettina Bussi	RSR	WP5
5	Grain cleaning	OMKI	WP5
6	Field trials for treatments against Tilletia caries	AGES	WP5
7	White Lupin Resistance Breeding – Anthracnose screening	FiBL	WP3
8	How to organise a field day - Riccardo Bocci	RSR	WP5
9	LIVESEED Cross-visit Netherlands: Pumpkin breeding in organic	Vitalis	

### 5.1 Screenshot of videos on LIVESEED project website



*Figure 38 - Video on Bunt control strategies - Anders Borgens*



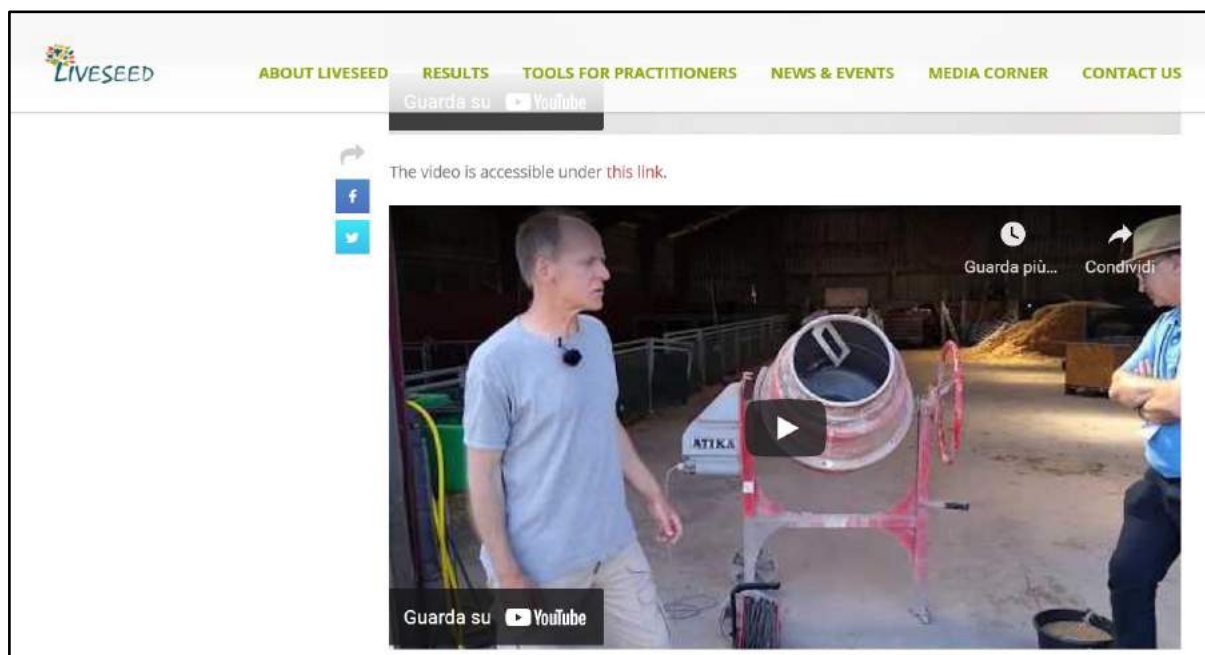


Figure 39 - Demonstration brush seed cleaning - Anders Borgens



Figure 40 - Saving and Storing Tomato Seeds - Adrian Rodriguez Burruezo



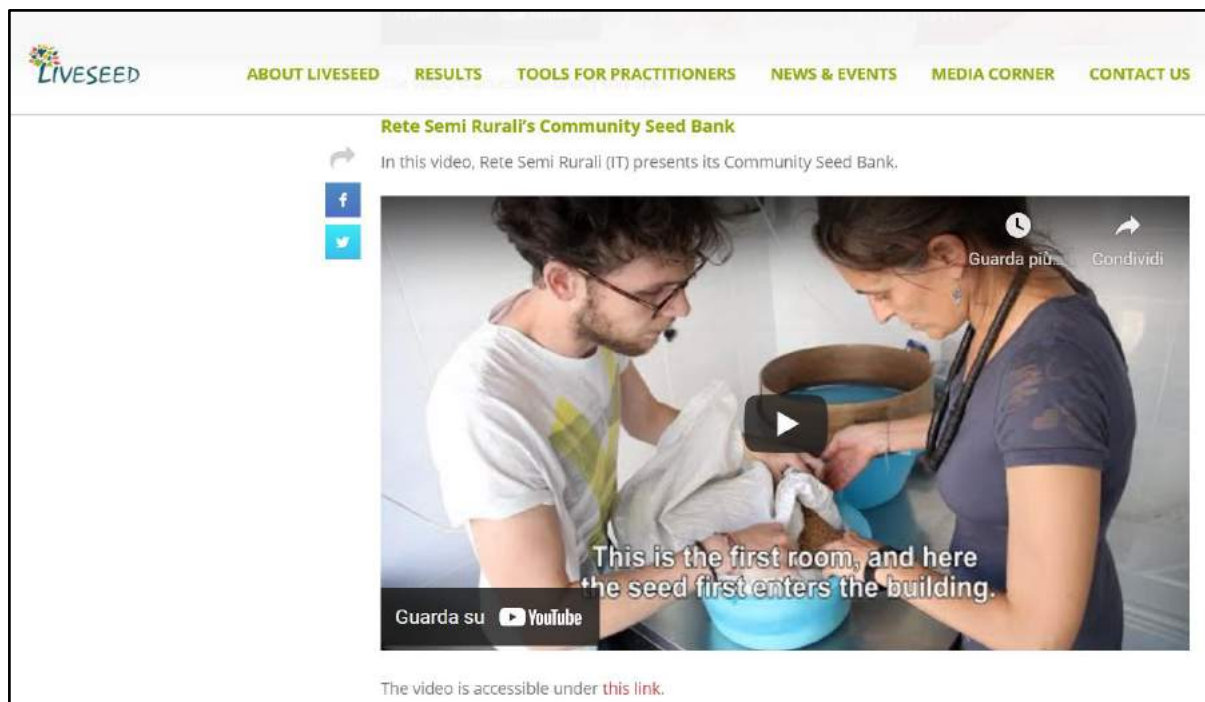


Figure 41 - Community seed bank – RSR (Bettina Bussi)

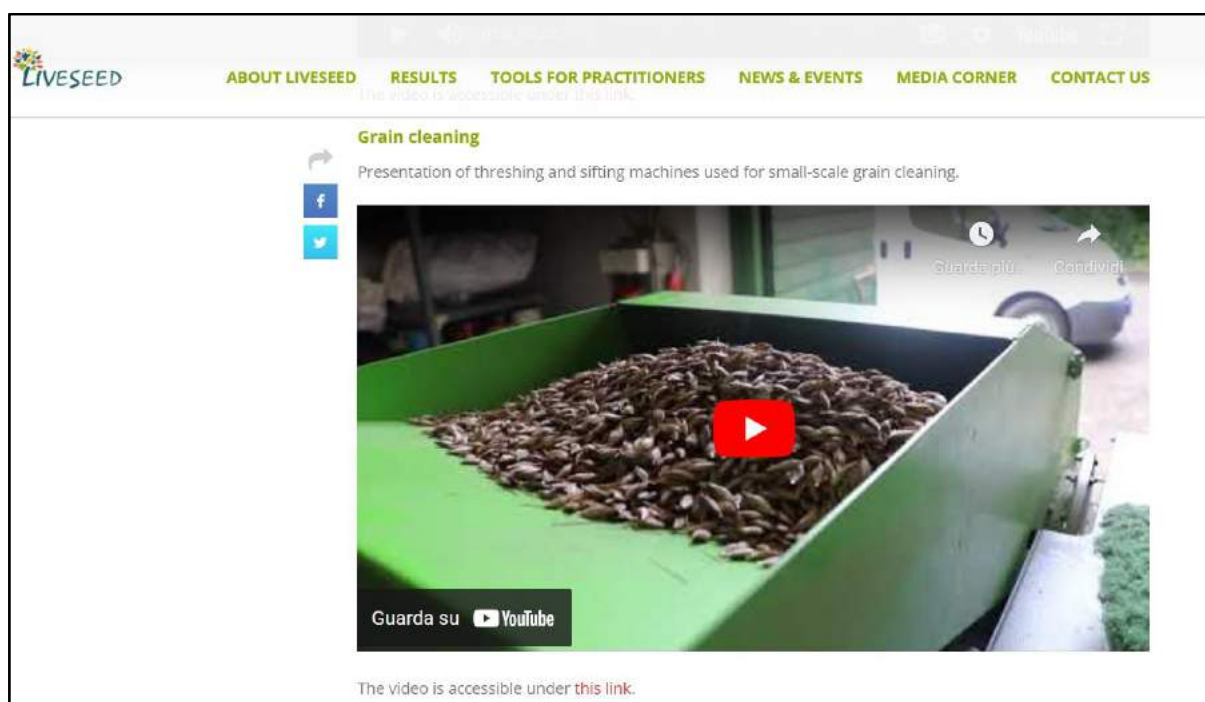


Figure 42 - Grain Cleaning



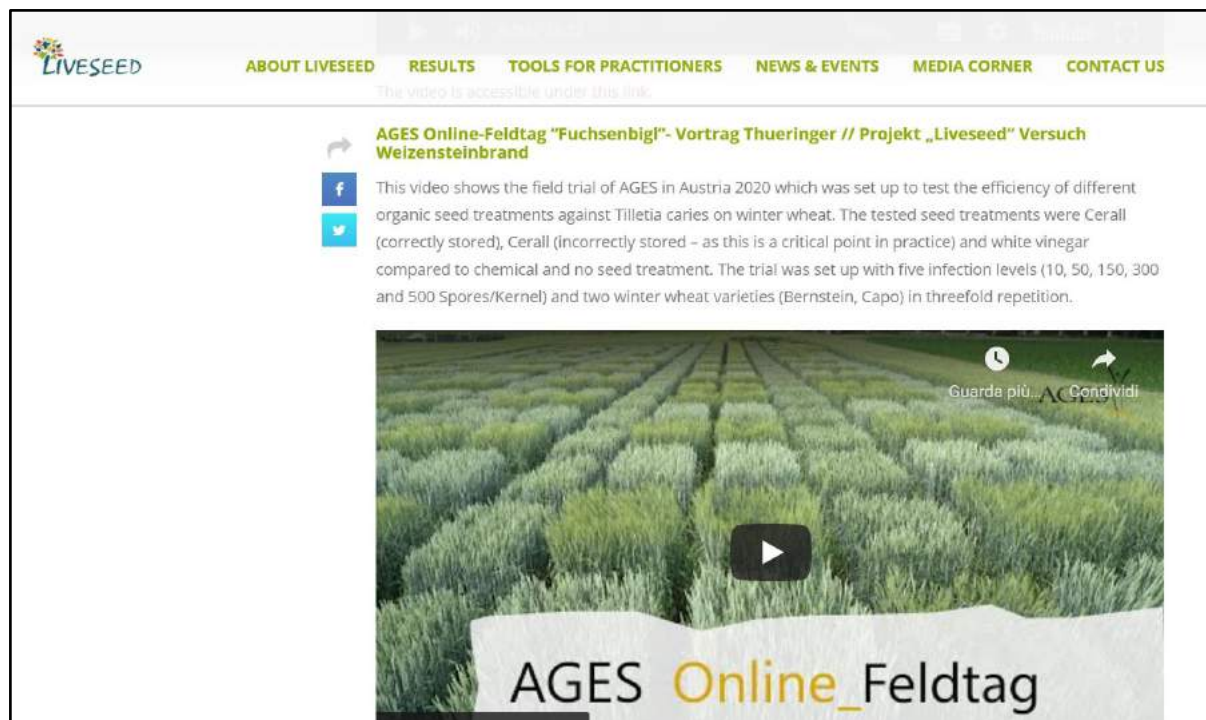


Figure 43 - Trials on treatments for bunt management – AGES

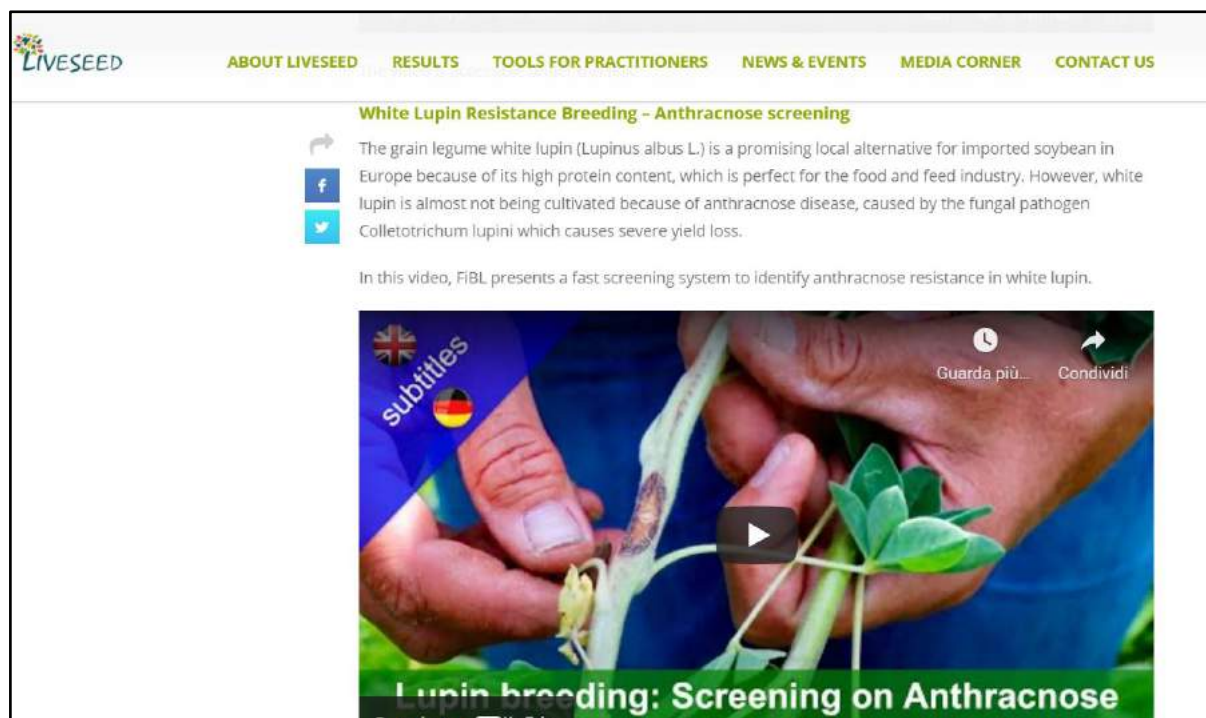


Figure 44 - White Lupin Resistance Breeding – Anthracnose screening



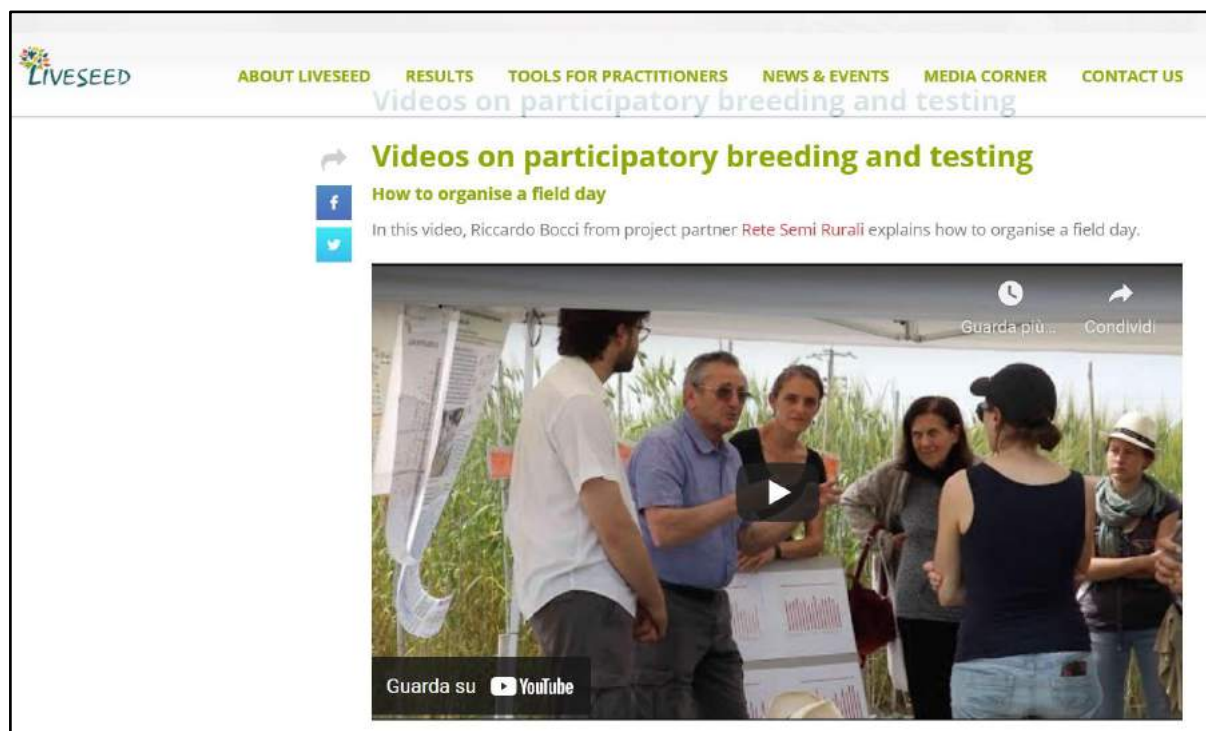


Figure 45 - How to organise a field day - Riccardo Bocci



Figure 46 - Pumpkin breeding in organic



Screenshot of videos on Organic Farm Knowledge Platform

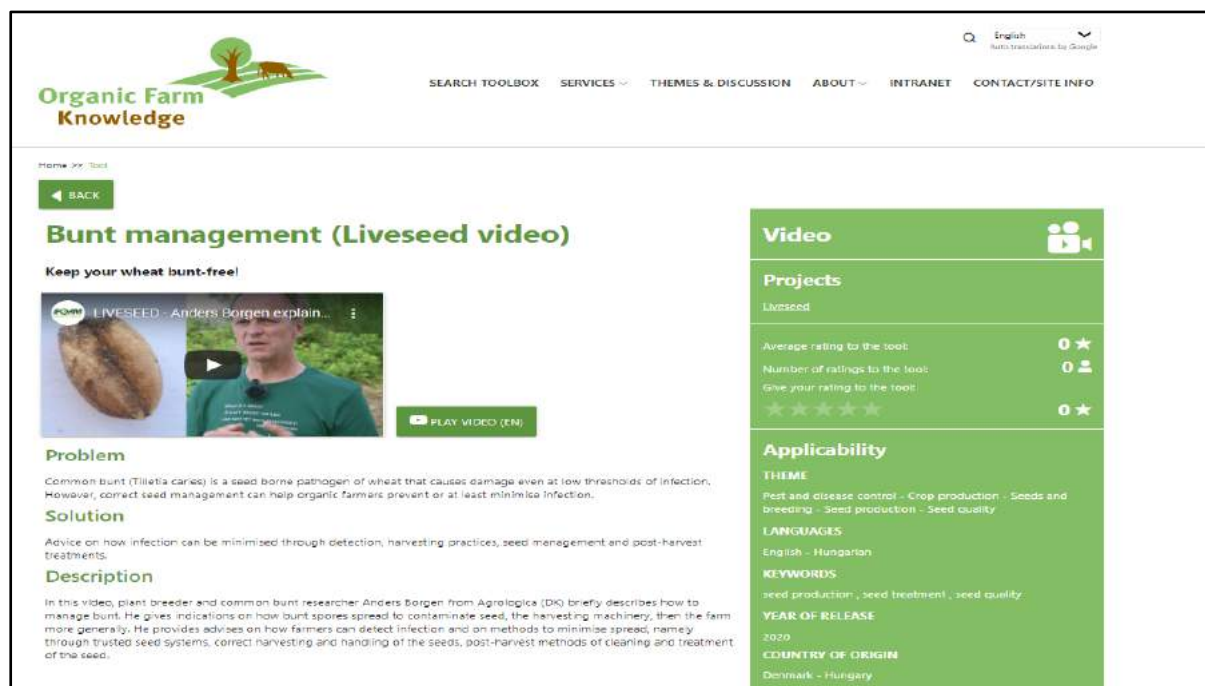


Figure 47 - Screenshot of video 1 in OFK platform

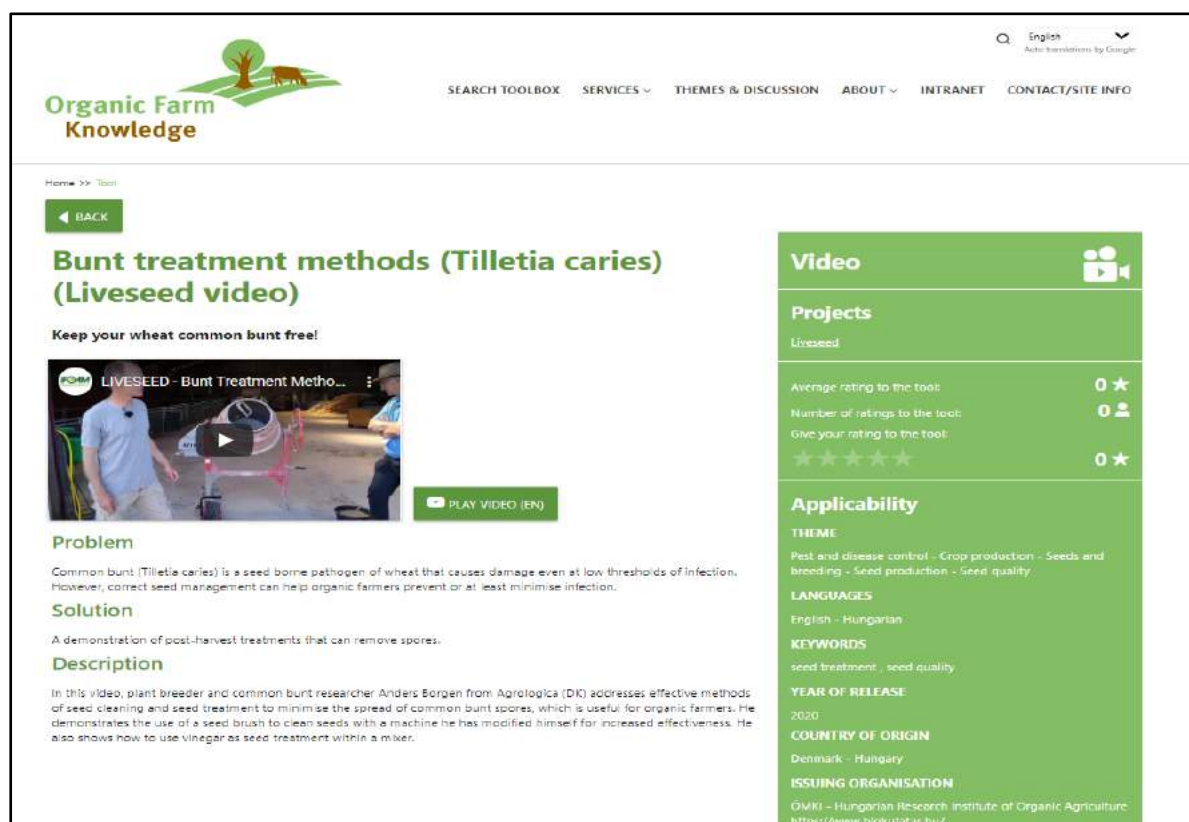


Figure 48 - Screenshot of video 2 in OFK platform



LIVESEED is funded by the European Union’s Horizon 2020 under grant agreement No 727230 and by the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 17.00090.





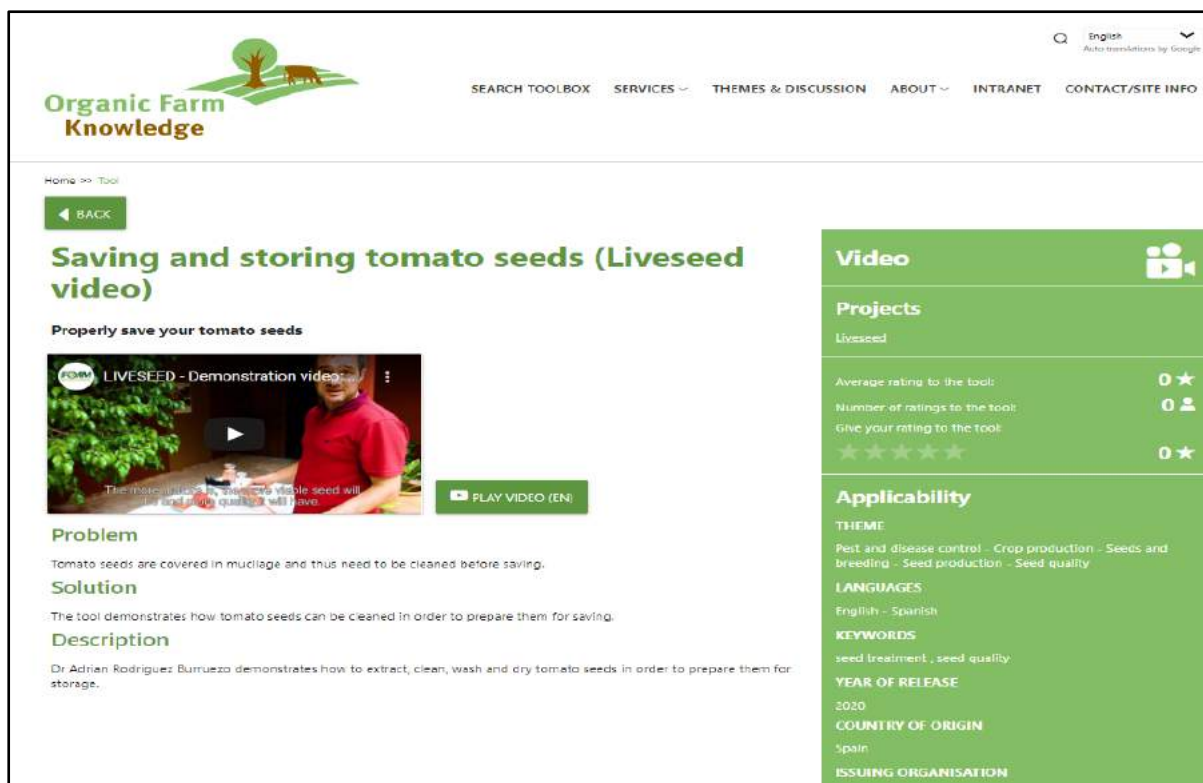


Figure 49 - Screenshot of video 3 in OFK platform

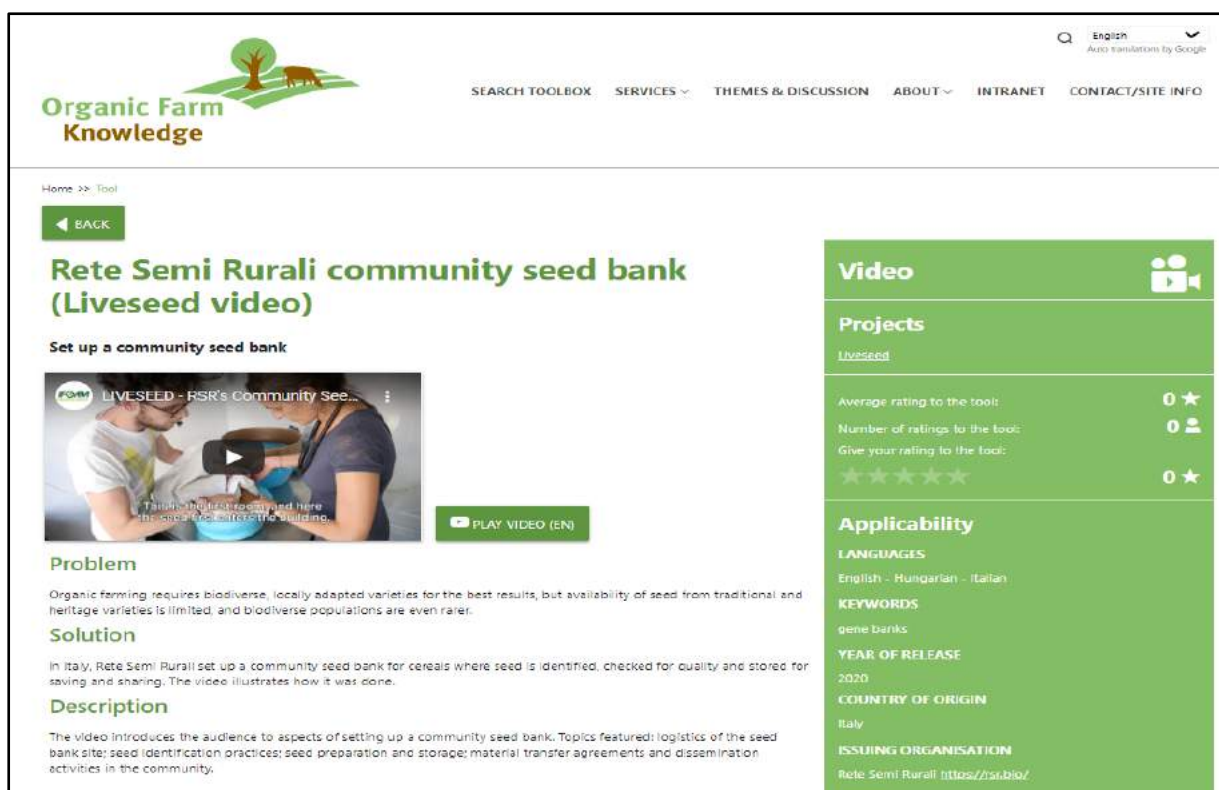


Figure 50 - Screenshot of video 4 in OFK platform



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**Organic Farm Knowledge**

SEARCH TOOLBOX SERVICES THEMES & DISCUSSION ABOUT INTRANET CONTACT/SITE INFO

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## Grain cleaning (Liveseed video)

Choose appropriate machinery for small-scale grain cleaning

**Problem**  
Debris in seed can be an issue for sowing machinery, causing clogging and blockages.

**Solution**  
Small-scale farmers can use threshing and sifting machines, properly adjusted, to obtain small quantities of clean seeds.

**Description**  
Péter Mikó describes how to combine the correct settings of the combine harvester with the use of sifting, winnowing and threshing machinery to obtain clean seed in smaller quantities, when it is not appropriate to have professional cleaning done. Suggestions on how best to isolate seed and on how to get hulled and naked seed separately are also given.

**Video**

**Projects**  
Liveseed

Average rating to the tool: 0 ★  
Number of ratings to the tool: 0  
Give your rating to the tool: ★ ★ ★ ★ ★ 0 ★

**Applicability**

**THEME**  
Pest and disease control - Crop production - Seed quality

**LANGUAGES**  
English - Hungarian

**KEYWORDS**  
seed quality

**YEAR OF RELEASE**  
2020

**COUNTRY OF ORIGIN**  
Hungary

**ISSUING ORGANISATION**  
OMK - Hungarian Research Institute of Organic Agriculture  
<https://www.biolocitatas.hu/>

Figure 51 - Screenshot of video 5 in OFK platform

**Organic Farm Knowledge**

SEARCH TOOLBOX SERVICES THEMES & DISCUSSION ABOUT INTRANET CONTACT/SITE INFO

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## Field trials for treatments against Tilletia caries (Liveseed video)

**Problem**  
Common bunt (Tilletia caries) is a seed borne pathogen of wheat that causes damage even at low thresholds of infection.

**Solution**  
Organic seed treatments against Tilletia caries are tested and compared to conventional seed treatments and control. The video illustrates how.

**Description**  
In this video, Dr. Angela Thuerlinger describes the trial set up for organic seed treatments (Cereal that was correctly stored, Cereal that was incorrectly stored and white vinegar) that are tested for efficiency against chemical treatments and control.

**Video**

**Projects**  
Liveseed

Average rating to the tool: 0 ★  
Number of ratings to the tool: 0  
Give your rating to the tool: ★ ★ ★ ★ ★ 0 ★

**Applicability**

**THEME**  
Pest and disease control - Seeds and breeding - Seed production

**LANGUAGES**  
German

**KEYWORDS**  
seed treatment, seed testing

**YEAR OF RELEASE**  
2020

**COUNTRY OF ORIGIN**  
Austria

**ISSUING ORGANISATION**

Figure 52 - Screenshot of video 6 in OFK platform



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**Organic Farm Knowledge**

SEARCH TOOLBOX SERVICES THEMES & DISCUSSION ABOUT INTRANET CONTACT/SITE INFO

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## White lupin breeding - Screening on anthracnose (Liveseed video)

**Anthracnose in lupins, screening for resistance**

**White Lupin Resistance Breeding ...**

**Lupin breeding: Screening on Anthracnose**  
Resistenzüchtung Lupinen - Anthraknose Screening

PLAY VIDEO (EN)

**Problem**

White lupin is a great alternative to soybeans as it provides grains for the food and feed industry while helping with soil fertility. Yet this crop is not widely grown, because it is susceptible to Anthracnose.

**Solution**

FIBL is screening seed from worldwide collections to find Anthracnose-resistant seed to help with breeding resistance. The video illustrates presents a quick procedure to identify resistant lupins.

**Description**

In this video, interested researchers can find an explanation on how the seed borne fungal pathogen Anthracnose affects lupin crops, and a description of FIBL's project for screening under controlled conditions, aimed at identifying resistance to Anthracnose (*Colletotrichum lupini*) in seed as a basis for breeding resistance programmes.

**Video**

**Projects**

Liveseed

Average rating to the tool: 0 ★

Number of ratings to the tool: 0

Give your rating to the tool: 0 ★

**Applicability**

**THEME**

Pest and disease control

**LANGUAGES**

English - German

**KEYWORDS**

seed testing , selection criteria

**YEAR OF RELEASE**

2020

**COUNTRY OF ORIGIN**

Switzerland

**ISSUING ORGANISATION**

Figure 53 - Screenshot of video 7 in OFK platform

**Organic Farm Knowledge**

SEARCH TOOLBOX SERVICES THEMES & DISCUSSION ABOUT INTRANET CONTACT/SITE INFO

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## How to organise a field day (Liveseed video)

**Bring researchers into the fields**

**LIVESEED - How to organise a field ...**

PLAY VIDEO (EN)

**Problem**

Communication between researchers and farmers rarely happens directly and requires a specific capacity to combine scientific and tacit knowledge developed in academia and in the farmers' fields.

**Solution**

The video presents the methodology developed by Rete Semi Rurali of using field days as an opportunity to facilitate knowledge exchange and develop innovation.

**Description**

Riccardo Bocci from Rete Semi Rurali presents in detail all the steps needed to organise a good field day.

**Video**

**Projects**

Liveseed

Average rating to the tool: 0 ★

Number of ratings to the tool: 0

Give your rating to the tool: 0 ★

**Applicability**

**THEME**

Crop production - Seeds and breeding - Plant breeding and variety trials

**LANGUAGES**

English

**KEYWORDS**

plant breeding

**YEAR OF RELEASE**

2021

Figure 54 - Screenshot of video 8 in OFK platform



LIVESEED is funded by the European Union's Horizon 2020 under grant agreement No 727230 and by the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 17.00090.



The screenshot displays the 'Organic Farm Knowledge' (OFK) platform interface. At the top, there is a search bar and navigation links for 'SEARCH TOOLBOX', 'SERVICES', 'THEMES & DISCUSSION', 'ABOUT', 'INTRANET', and 'CONTACT/SITE INFO'. The main content area features a video player for 'Organic pumpkin breeding (Liveseed video)'. Below the video, there are sections for 'Problem', 'Solution', and 'Description'. The 'Description' section states: 'Marcel van Diemen at Vitalis Organic Seeds explains how the company uses the whole range of the cucurbitaceae family for crossing. That way, they have access to a variety of desired characters for breeding purposes. Laboratory techniques such as markers are then used to take the breeding process forward. He further guides the viewer through the whole process of breeding, from an initial cross made by hand-pollinating a flower, through discussion on how specific varieties address market requirements and on virus resistance to seed cleaning and quality parameters for high germination.' To the right of the video player is a sidebar with a 'Video' header and a 'Projects' section listing 'Liveseed'. Below this, there are statistics: 'Average rating to the tool: 0 ★', 'Number of ratings to the tool: 0', and 'Give your rating to the tool: 0 ★'. The 'Applicability' section lists 'THEME' as 'Crop production - Seeds and breeding - Seed quality - Plant breeding and variety trials', 'LANGUAGES' as 'English - German', 'KEYWORDS' as 'seed quality, plant breeding, varieties', 'YEAR OF RELEASE' as '2020', and 'COUNTRY OF ORIGIN' as 'Belgium'.

Figure 55 - Screenshot of video 9 in OFK platform



LIVESEED is funded by the European Union's Horizon 2020 under grant agreement No 727230 and by the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 17.00090.



## 6. Success stories based on LIVESEED Cross Visits and National Visits

Seed and their biodiversity are key elements for the development of organic agriculture and for the agro-ecological transition of food systems. The availability of seed and vegetative propagating materials that are not only adapted but also adaptable to the diversity of organic farming systems and agro-ecological environments, can boost organic farms' productivity, their yield stability and the quality of their end products, while making them more independent from the conventional sector. Yet, although the supply and diversity of organic seed is improving, the majority of organic crop production<sup>1</sup> is still based on seed selected for and produced within the conventional sector. Major changes in how seed for organic regimes is bred and multiplied are long overdue, and will involve all the actors of the seed value chain, from producers to final users.

In this context, the LIVESEED project organised a discovery journey through a number of cross-visits in Europe with the aim of:

- documenting success stories of organic seed selection and production/ multiplication,
- enabling mutual learning among professionals,
- forging relationships as a basis for an EU professional network on organic seed
- inspiring and initiating change

A specific booklet has been developed for documenting 8 success stories of organic seed selection and production/multiplication. The booklet is available online both on the LIVESEED project website and on the Organic Farm Knowledge Platform.

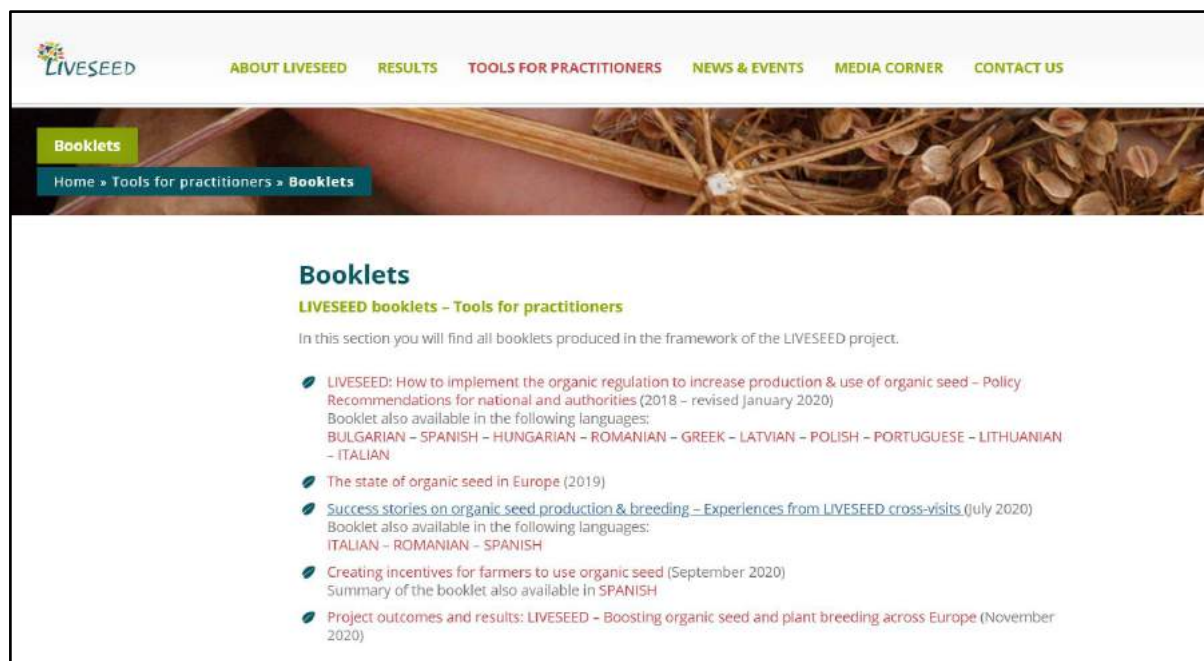


Figure 56 - Screenshot of booklet on success stories on LIVESEED project website



**Success stories :**

1.		Organic seed multiplication on farm	8
2.		A cooperative organic seed company	10
3.		Organic open pollinated vegetable seed production	12
4.		Closing the circle: cereal populations from seed to plate	14
5.		Organic potato production by Agrico potato giant	16
6.		A leading seed company with 'organic blood' in its veins	18
7.		On-farm apple breeding by non-profit organization Poma Culta	20
8.		Fungus-resistant grapevine breeding	22

Figure 57 - List of success stories included in the booklet

**Success stories on organic seed production & breeding**

**Organic seed breeding and production: it can be done!**

**Problem**

Organic seed, bred specifically for organic agriculture, is essential to its success in terms of crop yield, stability and quality of the end products. However, the majority of organic seed in the EU is bred and selected within the conventional sector, based on criteria suitable for conventional agriculture.

**Solution**

This booklet explains how organic seed differs from conventionally bred seed and documents eight success stories in production and breeding of organic seed from five European countries.

**Description**

This booklet is meant to inspire farmers, breeders and seed producers to devote resources to producing organic seed. It illustrates eight success stories from five European countries. Case studies cover the whole spectrum of farming from vegetable to fruit, cereal to potato and represent various stages of seed breeding, production and multiplication as well as a range of business set-ups: from individual farms to private seed companies, through non-profit organisations and cooperatives.

**Other type of tool**

**Projects**

Success

Average rating to the tool: 0 ★

Number of ratings to the tool: 0

Give your rating to the tool: 0 ★

**Applicability**

**THEME**

Crop production - Seeds and breeding - Seed production - Plant breeding and variety trials

**LANGUAGES**

English - Italian - Romanian - Spanish

**KEYWORDS**

seed production , plant breeding

**YEAR OF RELEASE**

2020

**COUNTRY OF ORIGIN**

Germany - Italy - Netherlands - Switzerland

**ISSUING ORGANISATION**

ITAB - Institute for Organic Agriculture and Food <https://itab.ecn.nl/>  
 IFOAM - Organics Europe <https://www.ifoam.org/europe/>

Figure 58 - Screenshot of Booklet with success stories on the OFK Platform



LIVESEED is funded by the European Union's Horizon 2020 under grant agreement No 727230 and by the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 17.00090.



## 7. Practice Abstracts on Smart Practices

A specific set of 10 practice abstracts was developed with the specific focus to share smart practices with practitioners.

The table below shows the list of such abstracts, partially developed in connection with the cross-visits of the LIVESEED project.

Table 4 - List of PA on smart practices

N.	Title	Partner
4	Creating dynamic and diverse populations	INRAE
25	Proper seed storage	WUR
59	Treating wheat seed with vinegar against common bunt	ITAB AGROLOGICA
41	Application of acetic acid as a seed treatment in organic cereal seed	AGROLOGICA
16	Guidelines for on-farm variety testing	De Beersche Hoeve
3	Cooperatives as model to improve organic seed production	De Beersche Hoeve
21	The difference between certified seed and “untreated” conventional seed	VITALIS BIONEXT
37	Farm saved seed: what rules?	RSR
38	Conservation varieties in Italy	RSR
51	How to set up a community seed bank	RSR

### Screenshots of Practice Abstracts on Organic Farm Knowledge platform

The screenshot displays the 'Organic Farm Knowledge' website interface. The main content area features a practice abstract titled 'Creating dynamic and diverse populations. Mixtures of landraces or old varieties (Liveseed Practice Abstract)'. The abstract includes a 'Problem' section describing the lack of adapted varieties and the need for dynamic populations, a 'Solution' section mentioning the mixture of general populations and the role of collective organizations, and a 'Description' section detailing practical recommendations for selecting and testing diverse cultivars. On the right side, there is a sidebar with 'Practice abstracts' and 'Projects' sections, including a 'Projects' table with columns for 'Studies', 'Average rating to the tool', 'Number of ratings to the tool', and 'Five year rating to the tool'. Below this, there is an 'Applicability' section with fields for 'THEME', 'LANGUAGES', 'KEYWORDS', 'YEAR OF RELEASE', 'COUNTRY OF ORIGIN', 'ISSUING ORGANISATION', and 'CONTACT'.

Figure 59 - Screenshot of PA 4 on the OFK platform



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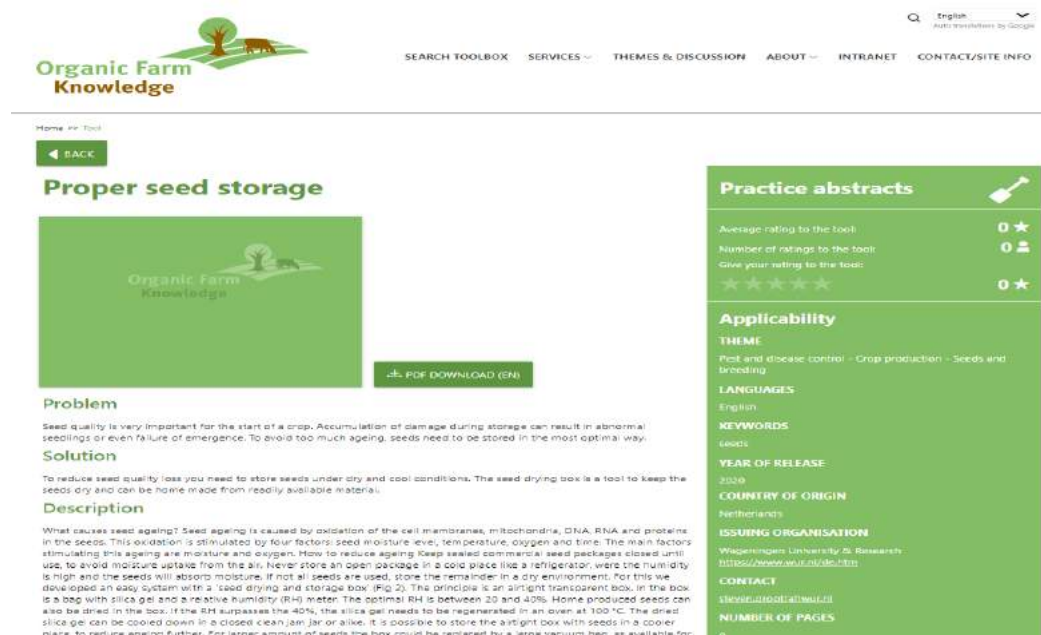


Figure 60 - Screenshot of PA 25 on the OFK platform

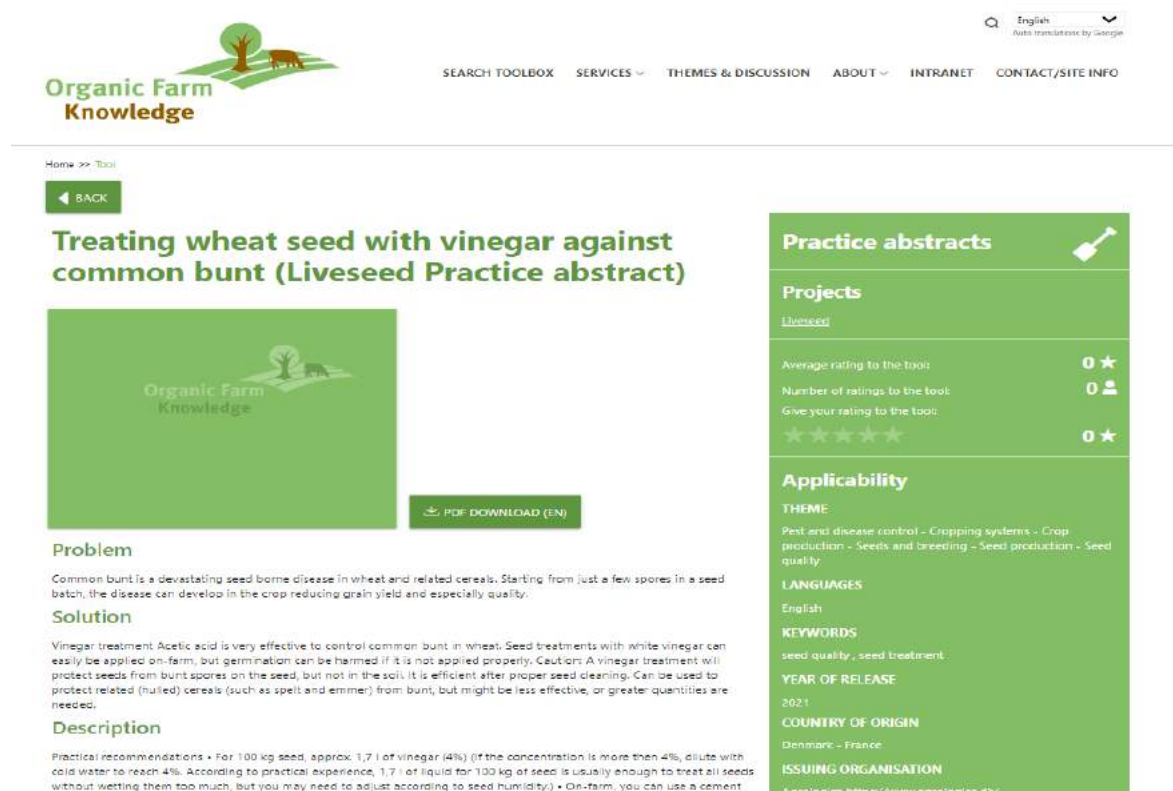


Figure 61 - Screenshot of PA 59 on the OFK platform



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The screenshot shows the Organic Farm Knowledge website interface. At the top, there is a search bar and navigation links: SEARCH TOOLBOX, SERVICES, THEMES & DISCUSSION, ABOUT, INTRANET, and CONTACT/SITE INFO. The main content area features a green header with the title "Application of acetic acid as a seed treatment in organic cereal seed (Liveseed Practice abstract)". Below the title is a thumbnail image with the Organic Farm Knowledge logo and a "PDF DOWNLOAD (EN)" button. The text is organized into sections: **Problem**, **Solution**, and **Description**. To the right, a sidebar titled "Practice abstracts" provides metadata for this abstract, including: **Projects** (Liveseed), **Average rating to the tool** (0 stars), **Number of ratings to the tool** (0), **Give your rating to the tool** (0 stars), **Applicability**, **THEME** (Pest and disease control - Cropping systems - Crop production - Seeds and breeding - Seed production - Seed quality), **LANGUAGES** (English), **KEYWORDS** (seed quality, seed treatment), **YEAR OF RELEASE** (2020), **COUNTRY OF ORIGIN** (Denmark), **ISSUING ORGANISATION** (Agricultura Ecos/2/www.aosolpica.dk/), and **CONTACT**.

Figure 62 - Screenshot of PA 41 on OFK Platform

The screenshot shows the Organic Farm Knowledge website interface for Practice Abstract PA 16. The main content area features a green header with the title "Guidelines for on-farm variety testing". Below the title is a thumbnail image with the Organic Farm Knowledge logo and a "PDF DOWNLOAD (EN)" button. The text is organized into sections: **Problem**, **Solution**, and **Description**. To the right, a sidebar titled "Practice abstracts" provides metadata for this abstract, including: **Average rating to the tool** (0 stars), **Number of ratings to the tool** (0), **Give your rating to the tool** (0 stars), **Applicability**, **THEME** (Cropping systems - Crop production - Seeds and breeding - Plant breeding and variety trials), **LANGUAGES** (English), **KEYWORDS** (varieties), **YEAR OF RELEASE** (2020), **COUNTRY OF ORIGIN** (Netherlands), **ISSUING ORGANISATION** (De Beeneke Hoere <https://www.debeenekehoere.nl/>), **CONTACT** (email: [beeneke@vaboo.com](mailto:beeneke@vaboo.com)), and **NUMBER OF PAGES** (0).

Figure 63 - Screenshot of PA 16 on OFK platform



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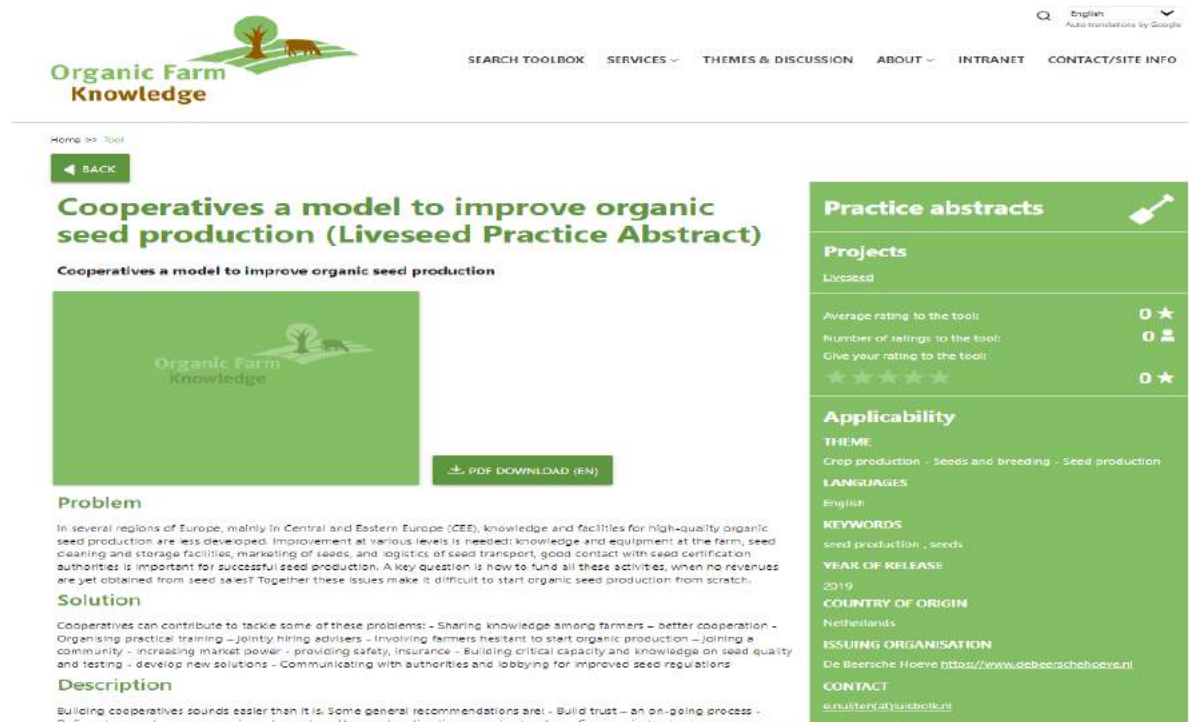


Figure 64- Screenshot of PA3 on OFK Platform

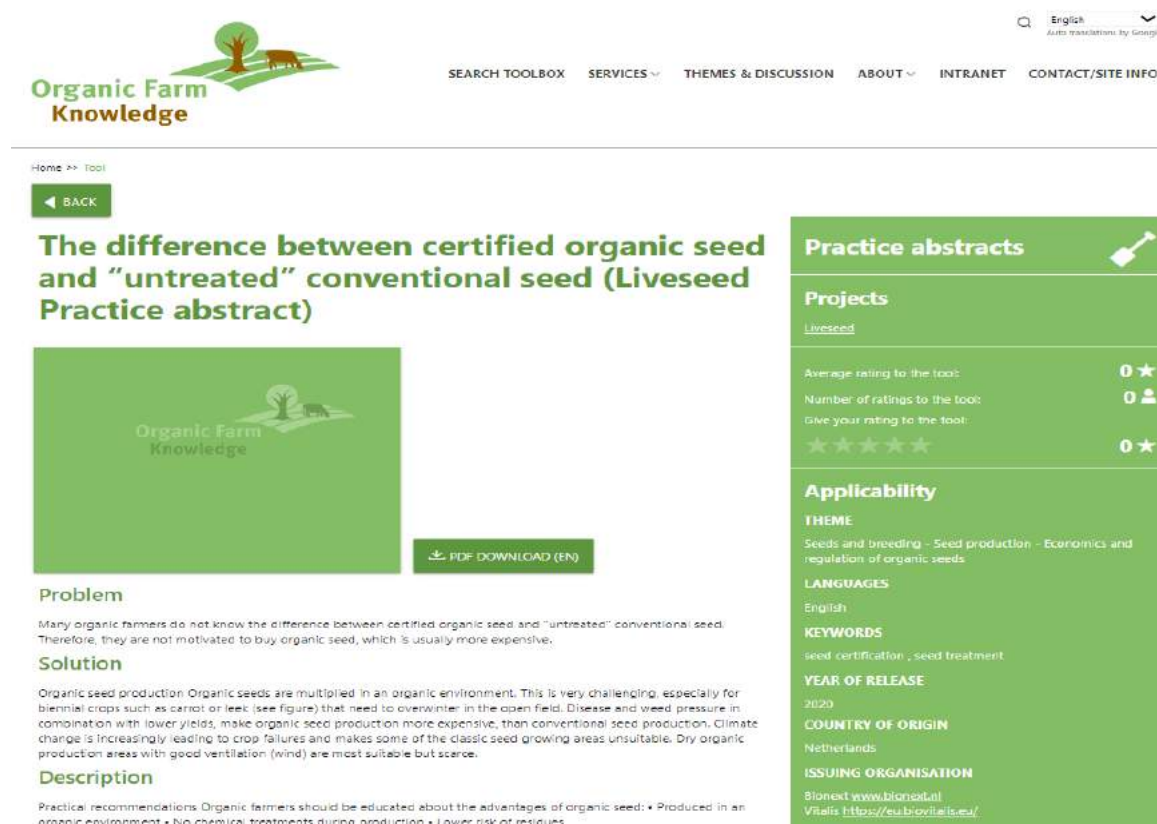


Figure 65 - Screenshot of PA21 on OFK Platform



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**Organic Farm Knowledge**

SEARCH TOOLBOX SERVICES THEMES & DISCUSSION ABOUT INTRANET CONTACT/SITE INFO

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### Farm saved seed: what are the rules? (Liveseed Practice abstract)

**Farm saved seed (FSS) as a mean to get obtain organic seed for the next sowing.**

PDF DOWNLOAD (EN)

**Problem**

According to LIVESEED's survey on organic seed use (LIVESEED booklet "The State of Organic Seed in Europe"), organic farming still relies on farm saved seed (FSS) as a means to obtain organic seed for the next sowing. However, the rules on FSS are not always clear: May farmers reproduce their own seeds? For which crops? Do they have to pay royalties on FSS?

**Solution**

Farm Saved Seed (FSS) is regulated by Council Regulation n. 2100/94 (art. 14 and 15) and Commission Regulation 1768/95 with regards to the definition of the "farmers' exemption" (see Fig. 1). In practice, farmers are allowed to save and re-sow protected varieties of only certain species, but then they have to pay the so-called "equitable remuneration" that could be on an individual basis or derived by a contract between farmers' and rights holders' organizations.

**Description**

Practical recommendations When you are re-sowing your own seeds please be aware that: • Conservation varieties, landraces, heritage varieties, heterogeneous materials are in public domain, so no royalties are due; • Not all modern varieties that are listed in the EU Common Catalogue are eligible for farm saved seed; • Some (PBR) variety breeds are not eligible for FSS.

**Practice abstracts**

**Projects**

Liveseed

Average rating to the tool: 0 ★

Number of ratings to the tool: 0

Give your rating to the tool: 0 ★

**Applicability**

**THEME**

Cropping systems - Crop production - Seeds and breeding  
Seed quality - Economics and regulation of organic seeds

**LANGUAGES**

English

**KEYWORDS**

seed storage ; seed certification

**YEAR OF RELEASE**

2020

**COUNTRY OF ORIGIN**

Italy

**ISSUING ORGANISATION**

Pete Semi Rurali www.semirurali.net  
www.usabio

**CONTACT**

Figure 66 - Screenshot of PA37 on OFK Platform

**Organic Farm Knowledge**

SEARCH TOOLBOX SERVICES THEMES & DISCUSSION ABOUT INTRANET CONTACT/SITE INFO

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### Conservation varieties in Italy (Liveseed Practice abstract)

PDF DOWNLOAD (EN)

**Problem**

A growing number of farmers and growers (including home gardeners) are seeking local varieties or cultivars with a higher level of intra-varietal diversity, compared to those normally available on the market (Distinct, Uniform and Stable varieties).

**Solution**

The 1998 EU directive 98/95 introduced a new category of plant propagation material: conservation varieties (CV). This was done to expand the seed market and include historical varieties and increase the level genetic diversity. In 2008 the rules for the marketing of conservation varieties were defined: a) Directive 62/2036/CE on field crop species b) Directive 145/2009/CE on vegetable species, divided among conservation varieties and varieties with no intrinsic value c) Directive 60/2010/CE on feed crops CVs exist only for those species, for which registration on the European Common Catalogue is mandatory. It is therefore not possible to have CVs of einkorn (Triticum monococcum), as the seed of this species can be marketed without registration on a variety list. CVs are registered on a dedicated section of the National variety list.

**Description**

Practical recommendations • In Italy there are 42 CV of vegetables, 16 vegetable varieties with no intrinsic value and 80 CVs of field crop species; • You can find CVs on seed companies' catalogues; • CVs are of public domain: no Plant Breeders' Rights (PBR) apply and farmers are free to save their own seed; • CVs can represent a resource for organic agriculture due to their

**Practice abstracts**

**Projects**

Liveseed

Average rating to the tool: 0

Number of ratings to the tool: 0

Give your rating to the tool: 0

**Applicability**

**THEME**

Cropping systems - Seeds and breeding - Economics and regulation of organic seeds

**LANGUAGES**

English

**KEYWORDS**

seed certification

**YEAR OF RELEASE**

2020

**COUNTRY OF ORIGIN**

Italy

**ISSUING ORGANISATION**

Pete Semi Rurali www.semirurali.net  
www.usabio


**CONTACT**

Figure 67 - Screenshot of PA 38 on OFK Platform



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**Organic Farm Knowledge**

English Auto translations by Google

SEARCH TOOLBOX SERVICES THEMES & DISCUSSION ABOUT INTRANET CONTACT/SITE INFO


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## How to set up a community seed bank (Liveseed Practice abstract)

**Managing seed diversity**



Organic Farm Knowledge

[PDF DOWNLOAD \(EN\)](#)


**Problem**

- Continuous loss of agricultural biodiversity / genetic erosion
- Difficulty to access seed adapted to local and organic conditions through the market

**Solution**

Community Seed Banks are a powerful tool for farmers and gardeners to cooperate in the management of seed diversity. Seed selection, production and management by farmers could be a collective action, in which shared actions allow to face technical problems and to find new solutions. Community Seed Banks could provide organic varieties and heterogeneous material to farmers seeking cultivars adapted to local conditions.

**Description**

**Practice abstracts** 

**Projects**

Liveseed

---

Average rating to the tool: **0** ★

Number of ratings to the tool: **0** 👤

Give your rating to the tool:

★★★★★ **0** ★

---

**Applicability**

**THEME**

Seeds and breeding - Economics and regulation of organic seeds

**LANGUAGES**

English

**KEYWORDS**

seed certification

**YEAR OF RELEASE**

2020

**COUNTRY OF ORIGIN**

Italy

Figure 68 - Screenshot of PA 51 on OFK Platform



# ANNEX I

## Organic Farm-Knowledge Platform Tool Description Form developed by RSR in 2018/19 for the Seed section

### Proper seed storage

Make separate descriptions for each tool. In case you want to describe a series of videos, or series of leaflets, you should describe each video/leaflet separately. Only when videos/leaflets/... are translations of each other, one description is sufficient. (e.g. same video in English, French and German).

Please only write in the **3<sup>rd</sup> column of the table** (“Your information about the tool”).

Fields shown in blue are only relevant for the person uploading to Organic E-prints and should not be completed by you.

Fields marked with # are optional or only to be filled in if relevant (see explanation)

<b>Heading/Field</b>	<b>Explanation – what needs to be filled in</b>	<b>Your information about the tool</b>	<b>Instructions for uploading to Organic E-prints</b>
Title	Title of tool in English	Proper seed storage	Copy and paste
#Title in original language	Title of tool in original language, if not English	n.a.	Copy and paste
Document language (s)	Language of the document(s)	English	Choose the relevant language(s).
Status			“Published” if publicly available, “Unpublished” if not (e.g. if only available on Organic E-prints and organic-farmknowledge.org such as Practice Abstracts)

# Tool description



Date	Enter year of release or "Information not available".	2019	Enter year of release (if available). You do not need to enter month and day.
Date type			"Publication" if published, "Completion" if unpublished
Creator(s)	Enter first and last names of authors, editors or other type of responsible persons	Steven P.C. Groot (Wageningen University & Research)	Copy and paste
Issuing organisation(s)			Copy and paste from "Issuing organisation details"
Contact email address	Enter the email address for contact about the tool. It should be for a person directly responsible for the tool or a specific email for the tool, or if this is not possible, for the issuing organisation.	steven.groot@wur.nl	Copy and paste
#Series name	<i>If practice abstract, put "LIVESEED Practice abstract".</i> If otherwise a series product, put relevant name. do not "invent" series names, e.g. "LIVESEED Tool Description"	LIVESEED Practice Abstract	Copy and paste
#Series number	<i>Enter Practice Abstract number</i> or other series number	5	Copy and paste
#Page range	For all relevant tools, not just PA's and other series! Enter first and last page (with a hyphen in between) or "Not	2	Copy and paste or if "Not applicable", do not enter anything.

# Tool description



	applicable" (for websites, videos etc.)		
Online at	Enter link to tool. <i>If practice abstract, do not enter link.</i>	<a href="https://www.liveseed.eu/wp-content/uploads/2019/10/PA5_Proper-seed-storage.pdf">https://www.liveseed.eu/wp-content/uploads/2019/10/PA5_Proper-seed-storage.pdf</a>	Enter link to tool (copy and paste). If practice abstract, enter "http://orprints.org/xxxxx" , where "xxxxx" is the e-prints id (can be seen at top as [#xxxxx]) If video, a link to the YouTube video must be entered, see more <a href="#">HERE</a>
#Accessed on date	If web product, enter date it was accessed. If not, leave empty	10/01/2020	Copy if relevant
Issuing organisation details	Name(s) of issuing organisation(s) & Website (be sure to start with www. or http:// otherwise it will not be shown as a link on the platform). Do not enter country of issuing organisation	Wageningen University & Research, PO box 16, 6700AA, Wageningen, The Netherlands <a href="https://www.wur.nl/en/wageningen-university.htm">https://www.wur.nl/en/wageningen-university.htm</a>	Copy and paste
Country	Enter country of issuing organisation	The Netherlands	Enter relevant country
What problem does the tool address	1-2 sentences	Seed quality is very important for the start of a crop. Accumulation of damage during storage can result in abnormal seedlings or even failure of emergence (Figure1). To avoid too much ageing, seeds need to be stored in the most optimal way	Copy and paste
What solution does the tool offer?	1-2 sentences	Seed ageing is caused by oxidation of the cell membranes, mitochondria, DNA, RNA and proteins in the seeds. This oxidation is stimulated by four factors: seed moisture level, temperature, oxygen and time.	Copy and paste



# Tool description

		The main factors stimulating this ageing are moisture and oxygen.	
Description (Summary)	Max. 1000 characters, describing briefly: - the <u>purpose</u> of the tool and which <u>solutions</u> it provides, giving 1-2 <u>key recommendations</u> - the <u>type of tool</u> and how it works - the <u>target group</u> of the tool (new/converted farmers, experienced farmers, advisors etc.) - if the tool is <u>specific for organic farming or not only</u> - <u>relevant/ specific location</u> where the tools can be used - <u>other specificities</u> of the tool	NO SENSE FOR PRACTICE ABSTRACTS WHICH ARE ALREADY SHORT	Copy and paste
#Description in another language	If original language is not English		Copy and paste
Teaser	Catchy sentence about what you can achieve with the tool, max. 10 words	Seed storage	Copy and paste
Theme	Preferably, choose only one or at most two themes. Choose only the most relevant.	<input checked="" type="checkbox"/> Organic Seed Production, Seed Cleaning, processing and storage <input type="checkbox"/> Seed quality and health under organic management <input type="checkbox"/> Organic Plant Breeding and variety trials <input type="checkbox"/> Economics and Regulation of organic seeds (including contracting, certification and market issues)	Tick relevant box



# Tool description



Subject Area	Preferably, choose only one, or at the most, two subject area. Choose only the most relevant.	<input checked="" type="checkbox"/> Breeding <input type="checkbox"/> Genetics and propagation <input type="checkbox"/> Policy environments and social economy	Choose according to the themes as shown here: <i>Theme -&gt; Subject</i> Organic Plant Breeding -> Breeding Organic Seed Production -> Production Systems Seed quality and health -> Crop health, quality, protection Economics and Regulation -> Policy environment and social economy <b>If relevant, add a few (2-3) other subjects, but only if they constitute an important part of the tool – do not try to add everything that is mentioned in the tool</b>
Tool type	Choose only ONE type! Only choose the type of the tool itself. E.g. a website containing several videos and leaflets, is of type "web", not video or leaflet.	<input type="checkbox"/> Calculation tools <input type="checkbox"/> Leaflets & guidelines <input checked="" type="checkbox"/> Practice abstracts <input type="checkbox"/> Books & reports <input type="checkbox"/> Video <input type="checkbox"/> Audio <input type="checkbox"/> Web <input type="checkbox"/> Online courses <input type="checkbox"/> Other type of tool - Write type: _____	Tick relevant box If "other type" Write type in free-text box
ID for LIVESEED selection			<b>LIVESEED</b> <b>it is very important to enter this exactly as shown (no capital letters, no spaces), otherwise the tool will not appear on the knowledge platform!</b>
#Related links = URL for more information	If relevant, you may add a link to e.g. a relevant website other than the link to the tool or the issuing organisation.	<a href="https://library.wur.nl/WebQuery/wurpubs/534005">https://library.wur.nl/WebQuery/wurpubs/534005</a>	Put the link to the tool in organic-farmknowledge.org ( <a href="http://farmknowledge.org/index.php/search-for-ok-tools?v=xxxxx">http://farmknowledge.org/index.php/search-for-ok-tools?v=xxxxx</a> where "xxxxx" is the eprint)

# Tool description



			id). Copy and paste the link for the issuing organisation (from "Issuing organisation details"). If relevant, add link to e.g. a relevant website other than the link to the tool or the issuing organisation.
Additional publication information			If relevant, add text
Comments and suggestions			Usually not relevant to add text
			Tick relevant boxes for chosen keywords. Remember to tick "Seeds".
Keywords Agrovoc	<p><b>Theme 1 – Organic Seed Production, seed cleaning, processing and storage</b> Select 3-5 keywords</p> <p><input type="checkbox"/> seeds <input checked="" type="checkbox"/> seed production</p> <p><b>Theme 2 – Seed quality and health under organic management</b> <input type="checkbox"/> seed quality</p>	<p><b>Theme 3 – Organic Plant Breeding and variety trials</b></p> <p><input type="checkbox"/> plant breeding <input type="checkbox"/> seed testing <input type="checkbox"/> genetic resistance <input type="checkbox"/> varieties</p> <p><b>Theme 4 – Economic and Regulation of organic seeds (including contracting, certification and market issues)</b> <input type="checkbox"/> seeds</p>	

# Tool description



Affiliation			Choose <b>LIVESEED</b> under European Union <b>Further affiliations, such as issuing organisation, should be added after the eprint is online, in order to avoid other national editors uploading tools without our check</b>
Upload – add document			If file: click "Browse", choose your file, click "Open" If website: click the tab "From URL". Paste URL and click "Upload". If video: add URL from redirect-program, see how to do it <a href="#">HERE</a> . Add the text "YouTube-video" in the field "Other content or format information".
Access rights	Indicate whether there is open access to the tool. Normally, we do not include tools that do not have Open Access; however, access may be restricted in Organic E-prints as long as there is a link with open access. Add explanation of conditions in case of restricted access e.g. if temporary for how long?	<input checked="" type="checkbox"/> "Open access" <input type="checkbox"/> "Restricted access" If restricted, conditions: _____	If access is not restricted, you do not need to do anything. If access is restricted: Click "show options" in upload sheet. For "Visible to", choose [Depositor and staff only] in case of restricted access. If restriction is temporary, enter "Embargo expiry date".
Cover image			Practice tools of the types "Calculation tools", "Leaflets & guidelines", "Books & reports" and "Web" are required to have a cover image connected to it. See how to do it <a href="#">HERE</a>
#FP7 projects	If the tool is an output from an FP7 or H2020 project, enter Grant Agreement Number.	LIVESEED	If the tool is an output from an FP7 or H2020 project, click "Yes" and enter Grant Agreement Number. Choose access (only if restrictions apply).

# Tool description



			If the tool is NOT an output from an FP7 project, skip to the next page. This will NOT affect access defined in previous tab.
Deposit permission	Declare whether you have obtained the permission of the tool owner to deposit in Organic Eprints, see "Tool deposit agreement" next page.		Click "Deposit Item now" ONLY if you are sure, LIVESEED has the right to put the tool online. If not, click "save for later" and clarify rights.

## Tool deposit agreement

2021-05-31

To whom it may concern *[if possible, direct it to a person]*

The [Liveseed](https://www.liveseed.eu/) project under Horizon 2020 has created the seed section in the knowledge platform [organic-farmknowledge.org](https://organic-farmknowledge.org). On the platform, so-called "tools" – formatted knowledge in a form available to farmers and advisors – are collected that are relevant for organic arable farming. The tools are searchable, users can rate them and discuss them in a forum.

We have found your "tool" *[insert name of tool]* publicly available on the internet *[insert link to tool]*, and would like to include it in our collection. In order to make it available on the knowledge platform, we need to deposit the tool on [Organic Eprints](https://organic-eprints.org).

The tool itself is not stored on the knowledge platform, only a link to where the tool can be found, see e.g. <http://farmknowledge.org/index.php/search-for-ok-tools?v=30563>. However, since Organic Eprints is an archive, the tool should be stored there and we would like your permission to do this.

This is the "Deposit agreement" from Organic Eprints:

Please let us know whether you accept that we deposit your tool *[insert tool name]* in Organic Eprints and make it available on [organic-farmknowledge.org](https://organic-farmknowledge.org) platform.

We hope you have become interested in our knowledge platform and that you will try it and tell others about it.

Kind regards,  
*[your name]*



# Tool description for the Organic Farm Knowledge platform

New Organic Farm-Knowledge Platform Tool description form developed by FiBL-CH for the whole platform in April 2021

## Title of the tool in English (insert title)

Make separate descriptions for each tool. In case you want to describe a series of videos, or series of leaflets, you should describe each video/leaflet separately. Only when videos/leaflets/... are translations of each other, one description is sufficient (e.g. same video in English, French and German).

Please only write in the **3<sup>rd</sup> column of the table** ("Your information about the tool").

Fields shown in green are only relevant for the person uploading to Organic E-prints and should not be completed by you.

Fields marked with # are optional or only to be filled in if relevant (see explanation)

Heading/Field	Explanation – what needs to be filled in	Your information about the tool	Instructions for uploading to Organic Eprints
Title	Title of tool in English		Copy and paste
#Title in original language	Title of tool in original language, if not English		Copy and paste
Document language (s)	Language of the document(s)		Choose the relevant language(s).
Status			"Published" if publicly available, "Unpublished" if not (e.g. if only available on Organic E-prints and organic-farmknowledge.org such as Practice Abstracts)



# Tool description for the Organic Farm Knowledge platform

Date	Enter year of release or "Information not available".		Enter year of release (if available). You do not need to enter month and day.
Date type			"Publication" if published, "Completion" if unpublished
Creator(s)	Enter first and last names of authors, editors or other type of responsible persons		Copy and paste
Issuing organisation(s)			Copy and paste from "Issuing organisation details"
Contact email address	Enter the email address for contact about the tool. It should be for a person directly responsible for the tool or a specific email for the tool, or if this is not possible, for the issuing organisation.		Copy and paste
#Series name	<i>If practice abstract, put "OK-Net Ecofeed Practice abstract". If otherwise a series product, put relevant name. do not "invent" series names, e.g. "OK-Net Ecofeed Tool Description"</i>		Copy and paste
#Series number	<i>Enter Practice Abstract number or other series number</i>		Copy and paste
#Page range	For all relevant tools, not just PA's and other series!		Copy and paste or if "Not applicable", do not enter anything.



# Tool description for the Organic Farm Knowledge platform

	Enter first and last page (with a hyphen in between) or "Not applicable" (for websites, videos etc.)		
Online at	Enter link to tool. <i>If practice abstract, do not enter link.</i>		Enter link to tool (copy and paste). If practice abstract, enter "http://orgprints.org/xxxxx" , where "xxxxx" is the eprint id (can be seen at top as [#xxxxx]) If video, a link to the youtube video must be entered.
#Accessed on date	If web product, enter date it was accessed. If not, leave empty		Copy if relevant
Issuing organisation details	Name(s) of issuing organisation(s) & Website (be sure to start with www. or http:// otherwise it will not be shown as a link on the platform). Do not enter country of issuing organisation		Copy and paste
Country	Enter country of issuing organisation		Enter relevant country
What problem does the tool address	1-2 sentences		Copy and paste
What solution does the tool offer?	1-2 sentences		Copy and paste



# Tool description for the Organic Farm Knowledge platform

Description (Summary)	<p>Max. 1000 characters, describing briefly:</p> <ul style="list-style-type: none"> <li>- the <u>purpose</u> of the tool and which <u>solutions</u> it provides, giving <u>1-2 key recommendations</u></li> <li>- the <u>type of tool</u> and how it works</li> <li>- the <u>target group</u> of the tool (new/converted farmers, experienced farmers, advisors etc.)</li> <li>- if the tool is <u>specific for organic farming or not</u> only</li> <li>- <u>relevant/ specific location</u> where the tools can be used</li> <li>- <u>other specificities</u> of the tool</li> </ul>		Copy and paste
#Description in another language	If original language is not English		Copy and paste
Teaser	Catchy sentence about what you can achieve with the tool, max. 10 words		Copy and paste
Tool type	Choose only ONE type! Only choose the type of the tool itself. E.g. a website containing several videos and leaflets, is of type "web", not video or leaflet.	<input type="checkbox"/> Calculation tools <input type="checkbox"/> Leaflets & guidelines <input type="checkbox"/> Practice abstracts <input type="checkbox"/> Books & reports <input type="checkbox"/> Video <input type="checkbox"/> Audio <input type="checkbox"/> Web <input type="checkbox"/> Online courses	Tick relevant box If "other type" Write type in free-text box





# Tool description for the Organic Farm Knowledge platform

		<input type="checkbox"/> Other type of tool - Write type: _____	
ID for OK-Net selection			oknet <b>It is very important to enter this exactly as shown (no capital letters, no spaces), otherwise the tool will not appear on the knowledge platform!</b>
#Related links = URL for more information	If relevant, you may add a link to e.g. a relevant website other than the link to the tool or the issuing organisation.		Put the link to the tool in organic-farmknowledge.org. Copy and paste the link for the issuing organisation (from "Issuing organisation details"). If relevant, add link to e.g. a relevant website other than the link to the tool or the issuing organisation. After publishing the tool, the person who posts the tool on social media needs to also add the Facebook and Twitter link to this entry.
Additional publication information			If relevant, add text
Comments and suggestions			Usually not relevant to add text
Keywords Agrovoc		Leave blank.	Highlight the relevant <b>keywords</b> for your entry in the table "Themes agrovoc keywords" found on the last page of this form. It is not necessary to select themes/sub/sub-subthemes as these are automatically selected via keywords – they are there to inform you where the tool will be associated on the platform.



# Tool description for the Organic Farm Knowledge platform

Subject area			Choose a few (2-3) relevant Organic E-prints subjects – do not try to add everything that is mentioned in the tool, just the specific topics.
Affiliation			Choose relevant project affiliation, e.g. OK-Net EcoFeed. Further affiliations, such as issuing organisation, should be added after the eprint is online, in order to avoid other national editors uploading tools without our check
Upload – add document			If file: click "Browse", choose your file, click "Open" If website: click the tab "From URL". Paste URL and click "Upload". If video: add URL from redirect-programme. Add the text "YouTube-video" in the field "Other content or format information".
Access rights	Indicate whether there is open access to the tool. Normally, we do not include tools that do not have Open Access; however, access may be restricted in Organic E-prints as long as there is a link with open access. Add explanation of conditions in case of restricted access e.g. if temporary for how long?	<input type="checkbox"/> "Open access" <input type="checkbox"/> "Restricted access" If restricted, conditions: _____	If access is not restricted, you do not need to do anything. If access is restricted: Click "show options" in upload sheet. For "Visible to", choose [Depositor and staff only] in case of restricted access. If restriction is temporary, enter "Embargo expiry date".
Cover image			Practice tools of the types "Calculation tools", "Leaflets & guidelines", "Books & reports" and



# Tool description for the Organic Farm Knowledge platform

			"Web" are required to have a cover image connected to it.
#FP7 projects	If the tool is an output from an FP7 or H2020 project, enter Grant Agreement Number.		If the tool is an output from an FP7 or H2020 project, click "Yes" and enter Grant Agreement Number. Choose access (only if restrictions apply). If the tool is NOT an output form an FP7 project, skip to the next page. This will NOT affect access defined in previous tab.
Deposit permission	Declare whether you have obtained the permission of the tool owner to deposit in Organic E-prints, see "Tool deposit agreement" next page.		Click "Deposit Item now" ONLY if you are sure, Organic Farm Knowledge has the right to put the tool online. If not, click "save for later" and clarify rights.
Social media	After the tool has been published, the Organic Farm Knowledge link of the tool needs to be posted to Facebook and Twitter with the appropriate mentions (always @ the relevant project and the partner(s) who provided the tool) and relevant hashtags, e.g. #organicfeed #organicpigs		The links to these posts then needs to be added to the "related links" section on the respective Organic E-prints entry.



# Tool description for the Organic Farm Knowledge platform

## Tool deposit agreement

2021-05-31

To whom it may concern *[if possible, direct it to a person]*

The [OK-Net Ecofeed](#) (Organic Knowledge Network Ecofeed) project under Horizon 2020 has created the knowledge platform [organic-farmknowledge.org](https://organic-farmknowledge.org). On the platform, so-called “tools” – formatted knowledge in a form available to farmers and advisors – are collected that are relevant for organic arable farming. The tools are searchable, users can rate them and discuss them in a forum.

We have found your “tool” *[insert name of tool]* publicly available on the internet *[insert link to tool]*, and would like to include it in our collection. In order to make it available on the knowledge platform, we need to deposit the tool on [Organic Eprints](#).

The tool itself is not stored on the knowledge platform, only a link to where the tool can be found, see e.g. <https://organic-farmknowledge.org/tool/30563>. However, since Organic Eprints is an archive, the tool should be stored there and we would like your permission to do this.

This is the “Deposit agreement” from Organic Eprints:

### Deposit Agreement

In depositing this eprint (a collection of files and associated metadata), I grant Organic Eprints the right to make it permanently available on-line, with open access to all or in accordance with any access restrictions that I have specified.

I understand that Organic Eprints does not assume any responsibility if there is any breach of copyright in distributing these files or metadata.

*For work being deposited by its own first author:* I declare that this eprint is my own intellectual property and that I have the right to make it available in Organic Eprints in the manner chosen.

*For work being deposited by someone other than its first author:* I declare that I have gained the proper permissions from someone with the right to make this eprint available in Organic Eprints in the manner chosen - or that the material is in the public domain.

Clicking on the deposit button indicates your agreement to these terms.

Please let us know whether you accept that we deposit your tool *[insert tool name]* in Organic Eprints and make it available on [organic-farmknowledge.org](https://organic-farmknowledge.org) platform. We hope you have become interested in our knowledge platform and that you will try it and tell others about it.

Kind regards,  
*[your name]*



# Tool description for the Organic Farm Knowledge platform

## Themes agrovoc keywords table

Theme	Sub-theme	Sub-sub-theme	Agrovoc keywords (highlight relevant keywords here)
Crop production			Crop production; Crop management
	Cropping systems		Cropping systems; Diversification; Arable farming; Low input agriculture; Intercropping; Monoculture; Permaculture; Precision agriculture; Conservation tillage; Crop rotation; Agroforestry; Agropastoral systems; Climate-smart agriculture; Irrigation; Catch crops; Cover plants; Protected cultivation; Seedbed preparation; Direct sowing
	Arable crops		Arable farming
		Cereals	Cereal crops
		Grain legumes	Legumes
		Oilseeds	Oil crops
		Forage	Roughage, Feed crops; Feeds; Grasses; Forage
		Fibre crops	Fibre crops
		Root crops	Root crops
		Cover/catch crops	Catch crops; Cover plants
		Horticulture	Horticulture
		Vegetables	Vegetables; Herbaceous plants; Vegetable crops
		Temperate fruits	Temperate fruits
		Subtropical and tropical fruits	Subtropical and tropical fruits
		Citrus fruits	Citrus
		Grapes	Viticulture; Grapes
		Olives	Olives
	Nuts	Nut crops	
	Berries	Soft fruits	



# Tool description for the Organic Farm Knowledge platform

Theme	Sub-theme	Sub-sub-theme	Agrovoc keywords (highlight relevant keywords here)
		Ornamentals, flowers and trees	Ornamental plants; Floriculture; Woody plants
		Protected cultivation	Greenhouse crops
	Weed management		Plant protection; Weed control; Mechanical weed control; Annual weeds; Perennial weeds
	Pest and disease control		Plant protection; Plant disease control; Disease Prevention; Diseases; Pest control; Integrated pest management; Biological control; Natural enemies; Disease tolerance; Tolerance to pests; Biological disease control; Copper
	Nutrient management		Nutrient management; Green manures; Organic fertilizers; Plant nutrition; Nitrogen; Phosphorus; Nitrates; Potassium; Nutrient deficiencies; Nutrient cycling in ecosystems; Leaching; Ammonia; Composts; Fertilizers
	Seeds and breeding		Seeds
		Seed production	Seed production; Seed characteristics; Seed treatment
		Seed quality	Seed quality; Seed storage; Genetic control; Germinability
		Plant breeding and variety trials	Seed testing; Plant breeding; Selection criteria; Varieties; Genetic diversity (as resource); Genetic markers; Genetic resistance; Genetic resources; Genotypes; Germplasm; Breeding methods
		Economics and regulation of organic seeds	Seed certification; Seed industry; Gene banks
	Grassland and forages		Grassland management; Grasses; Grasslands; Grazing lands; Rangelands; Agropastoral systems
	Postharvest management		Postharvest technology; Postharvest equipment; Handling; Postharvest physiology
Animal husbandry			Animal husbandry
	Production systems		Animal production



# Tool description for the Organic Farm Knowledge platform

Theme	Sub-theme	Sub-sub-theme	Agrovoc keywords (highlight relevant keywords here)
		Poultry	Poultry; Broiler chickens; Layer chicken; Ducks; Geese; Turkeys
		Pigs	Swine; Barrows; Boars; Piglets; Sows; Weaning
		Cattle	Cattle; Beef cattle; Dairy cattle; Heifers; Bulls; Calves
		Aquaculture	Aquaculture
		Apiculture and insects	Apiculture; Insect farming
		Small ruminants	Small ruminants; Goats; Sheep; Guanacos
	Breeding and genetics		Animal breeding; Animal genetics; Artificial insemination
	Feed and nutrition		Feeding; Animal nutrition; Costs
		Nutritive values and needs	Feed requirements; Feed composition; Nutritive value; Feeds; Feed crops; Feed conversion efficiency; Amino acids; Vitamins; Feed additives; Digestibility; Proteins; Insect farming; Feed formulations; Nutrient intake; Nutritional requirements
		Ration planning	Ration planning; Feeds; Grazing; Feeding costs; Rations; Forage
		Feed processing and handling	Feed processing; Feed quality; Feed technology
	Animal health and welfare		Animal health; Animal welfare
		Animal welfare	Animal protection; Transport of animals; Slaughtering
		Animal housing and equipment	Animal housing; Animal husbandry equipment; Farm buildings
		Veterinary medicine	Veterinary medicine; Homeopathy; Phytotherapy; Disease control; Disease prevention; Parasite control; Dairy hygiene; Meat hygiene
Soil			Soil



# Tool description for the Organic Farm Knowledge platform

Theme	Sub-theme	Sub-sub-theme	Agrovoc keywords (highlight relevant keywords here)
Food chain management	Soil health and quality		Soil quality; Soil organic matter; Organic matter; Humus; Nitrogen; Nitrogen fixation; Nutrient cycling; Nutrient deficiencies; Phosphorus; Soil compaction; Soil degradation; Soil fertility; Soil ph; Soil structure; Trace elements; Soil pollutants; Soil functions
	Soil biology		Soil biology; Soil microorganisms; Soil flora; Soil fungi; Soil fauna; Earthworms
	Soil management		Soil management; Soil conservation; Salinity control; Soil improvement; Tillage; Minimum tillage; Seedbed preparation; Integrated land management; Soil analysis; Soil fertility; Soil amendments; Soil water balance
			Postharvest technology
	Processing		Food processing; Processed products; Food technology; Byproducts
Environment and society	Packaging		Packaging; Packaging equipment
	Storage		Storage; Storage equipment
	Transportation		Transport; Transport safety; Transport of animals; Food traceability
	Food quality		Food quality; Product quality; Food hygiene; Food traceability; Food inspection; Quality assurance
			Environment; Society
	Biodiversity and nature conservation		Biodiversity; Nature conservation; Ecosystem services; Pollinators; Natural enemies; Functional biodiversity; Life cycle assessment; Biodiversity conservation
	Environmental protection		Environmental protection; Resource conservation; Environmental impact assessment; Pollution control; Waste management
	Climate change		Climate change; Climate change adaptation; Climate-smart agriculture; Drought resistance; Heat tolerance; Disease tolerance; Tolerance to pests; Salt tolerance; Tolerance to heavy rainfall; Carbon sequestration; Emission reduction; Renewable energy; Environmental impact assessment; Sustainability; Life cycle assessment; Resilience
	Sustainable communities		Sustainable livelihoods; Sustainable development; Socioeconomic development; Indigenous knowledge; Health foods; Recreation; Agrotourism; Food security; Cooperative farming; Agricultural organizations; Sustainability; Educational resources; Resilience





# Tool description for the Organic Farm Knowledge platform

Theme	Sub-theme	Sub-sub-theme	Agrovoc keywords (highlight relevant keywords here)
Farm management	Agroecological practices		Agroecology; Sustainability; Ecological production; Agroecosystems
			Farm management; Monitoring and evaluation
	Capital and finance		Farm economics (agricultural economics); Costs
	Farm technology and equipment		Farm buildings; Farm equipment; Information technology; Digital technology; Measuring instruments
	People and skills		Human resources management
	Marketing and agricultural trade		Marketing; Agricultural trade
	Standards, regulations and certification		Standards; Organic certification; Conversion factors