EU CAP Network

Innovation and Knowledge exchange | EIP-AGRI

FIELD DAY

Field visits 'Innovation in agriculture, forestry & rural areas in practice'

Friday 2 June 2023, 08:00 CEST – 13:00 CEST

On 2 June 2023, the European Commission's Directorate-General for Agriculture and Rural Development (DG AGRI) and the Support Facility for Innovation & Knowledge exchange | EIP-AGRI are organising a series of field visits near Brussels, Belgium with the support of the Flemish Rural Network.

These field visits will be organised back-to-back with the 2023 EU AgriResearch Conference, which will be held on 31 May and 1 June 2023 in Brussels, Belgium.

The field visits will demonstrate how research and agricultural practice interact in EIP-AGRI Operational Group projects (OG). The field visits are closely linked to the themes of the Research Conference and will focus on soil health, biodiversity, livestock, forestry, and digital and data technologies. Rural opportunities and bridging the gap between Research and Innovation (R&I) and practice are horizontal issues that will also be discussed on visit sites.

Funded by the European Union

Route 1

Operational Group visit 1: Starting mustard cultivation with a view to creating a sustainable value chain of arable farmers and mustard processors

Hof ter Vrijlegem
Boven Vrijlegem 41
1730 Asse

Connection to thematic breakout session: 8. Behavioural and Social Sciences for resilient and sustainable agricultural and forestry sectors

Short description of the project

Mustard seed was grown in Flanders in the past to provide raw material for artisanal mustard mills. Over the centuries, cultivation has shifted to Eastern Europe and Canada mainly because of the profitability of cultivation (other crops being more attractive) & the variable quality of locally harvested mustard seed. This project wishes to make mustard cultivation more local again. This is possible because the climate in Flanders (Belgium) is changing, and local products are more appreciated by consumers. The objective is to start a local mustard cultivation with an eye on creating a sustainable value chain from arable farmer to mustard processor. The project investigates which mustard varieties are appropriate and under which growing conditions and post-harvest treatments they thrive best in Flanders. This takes into account objective, quantifiable quality characteristics that Flemish artisan mustard makers are looking for. The project approach covers technical aspects of cultivation, post-harvest treatment, links with relevant physio-chemical parameters and mustard quality, and sustainable agreements between producers and artisanal processors.
During the visit, participants will have the chance to visit a field with yellow mustard cultivation, learn more about the processing of rapeseed into local products, and also see how the farm is heated with home-grown miscanthus. In addition, there will be a presentation about cross-border cooperation between Operational Groups.

Further information: https://hoftervrijlegem.be/

Operational Group visit 2: Pocket farmer 2 - More performant operation of pocket digesters

Koereit, 1730 Asse

Connection to thematic breakout session: 3. Challenges and opportunities for healthy and sustainable livestock systems

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Short description of the project

The project utilises the experiences of dairy farmers who are already using pocket digesters, to find solutions for common problems and to improve performance. The first project of the Pocket farmer Operational Group supported the sector with adjustments for the quality and operation of the installations. The project wishes to distribute knowledge and stimulate information exchange between potential operators, partners and other stakeholders. The project is also analysing, addressing or solving technical bottlenecks. The focus of the visit is on pocket digesters and stables with a milking robot.

During this field visit, participants will see the pocket digester (small-scale biomethane production for electricity generation for the dairy farm) and learn how the Operational Group has tried to find solutions to certain problems. Also, the farm has recently invested in a Photovoltaic (PV) installation coupled with a battery for solar electricity storage. During the visit, the farmer will also explain more about how this Operational Group worked and how the bottom-up approach was applied. Finally, participants will also visit a stable with an operating milking robot.

Further information: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/pocketboer-2-performantere-werking-van

Route 2

Operational Group visit 1: AWAIR - Purified wastewater for irrigation

Groentenhof
Molendreef 43
2890 Sint Amands

Connection to thematic breakout session: 1. Sustainably managed natural resources for agricultural production and the EU Mission 'A Soil Deal for Europe'

Short description of the project

The project aims to take the first steps in implementing purified wastewater from sewage treatment plants, as an alternative water source in horticulture. AWAIR wants to offer a structural solution to an increasing frequency of water scarcity. AWAIR will highlight the opportunities of purified wastewater for the Flemish horticultural sector through well-founded proof. This will create new impulses for the implementation of this alternative water source in Flanders. The demand for irrigation water is tested against the availability of purified wastewater at company scale and plot level, for three horticultural clusters. For the implementation of the alternative water source, the quality must be in accordance with Flemish and European legislation. The chosen purification technology determines the quality of the final purified wastewater. The opportunities, difficulties and costs of the different purification technologies will be examined by means of a technical and financial feasibility study for the three horticultural clusters.

The safe use of Municipal wastewater treatment plants (WWTPs) effluent as irrigation water was studied in the AWAIR project. On the tour that will be given, cultivation and more specifically different irrigation techniques will be explained. The water purification container and the various purification techniques that were applied will also be shown, including an overview of the project results.

Further information: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/awair-gezuiverd-afvalwater-voor-irrigatie

Operational Group visit 2: GoTO2 - Good temperature and oxygen management to control the infection pressure in hydroponic cultivation

Duffelsesteenweg 339 A
2550 Kontich

Connection to thematic breakout session: 2. Agrobiodiversity for healthy cropping systems

Short description of the project

The OG aims to control the infection pressure of *P. cryptogea* and *Pythium spp*. in lettuce and cucumber cultivation, by optimising the pouring water parameters, such as oxygen and temperature, at operating level. On the one hand, the OG aims to transfer knowledge to growers about ways to control weak parasites on their farms by improving the watering conditions. On the other hand, the OG wants to offer a structural solution to reduce yield losses due to weakening parasites. The OG strives for a sustainable infection pressure control by applying a non-chemical cultivation measure, thus reducing the use of crop protection agents. The project aims to gain insight into the role that oxygen content and temperature of feed water have on infection pressure. It aims to demonstrate technologies to control oxygen and temperature in pouring water, and will contribute to formulating best practices and disseminating knowledge to the greenhouse horticulture sector.

In the GoTO2 project, the effect of adding oxygen in the form of nanobubbles to the irrigation water of lettuce was investigated. During a tour, an explanation will be given of the cultivation of lettuce in a mobile gutter system and the use of a Moleaer Clean Nanobubble Generator installation to control the oxygen concentration in irrigation water. An explanation will also be given on the project results of the trials that were carried out at the Research Station for Vegetable Production (Proefstation voor de Groenteteelt or PSKW) in Flanders facilities and on other disinfection techniques for the control of plant pathogens.

Further information: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/goto2-goed-temperatuur-en-zuurstofmanagement-ter

Route 3

Operational Group visit 1: RFID in the tree nursery

PcS
Schaessestraat 18
9070 Destelbergen

Connection to thematic breakout session: 5. Digital and data technologies in agriculture: R&I for sectoral transformation; Sustainable management for multifunctional forests

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Short description of the project:

It is not exceptional for a tree nursery to grow more than 100 different cultivars, of which sometimes only a limited number are present. Most inventories are compiled manually. This reduces efficiency and increases the risk of errors. When a tree can no longer be identified, the work of years is lost. This Operational Group investigates the possibilities of tackling problems through digitalisation with RFID (Radio Frequency IDentification). The data is stored on a chip that can be read via radio waves. By growing the RFID tags into the tree, the information can no longer be lost. With the knowledge obtained from trials, the Operational Group wants to guide tree growers by listing all pros and cons of the RFID technology. The technology will be applied at a few participating tree nurseries. They will serve as a practical example to further spread this technology within the sector.

During the visit to the RFID project, the technology and different tags for application in tree nurseries will be demonstrated. In addition, a grower from the OG will give an explanation about the current inventory system and the possibilities of practical application of using RFID on-farm.

Further information: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/rfid-de-boomkwekerij

Operational Group visit 2: RE-PEAT: Reuse of growing substrates for circular horticulture

PcS
Schaessestraat 18
9070 Destelbergen

Connection to thematic breakout session: 1. Sustainably managed natural resources for agricultural production and the EU Mission 'A Soil Deal for Europe'

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Short description of the project

Substrates based on peat are frequently used in horticulture, but their extraction is under high pressure because of the negative effects on the environment. In ornamental plant cultivation (pot plants), the substrate is sold together with the plant, but in the cultivation of cut flowers, strawberries and greenhouse vegetables, the substrates become available as a residual product after cultivation. This Operational Group explores the reuse of these substrates in practice, to drastically reduce the use of fresh peat and other non-renewable raw materials in cultivation substrates.
The RE-PEAT project investigates the possibilities of reusing cultivation substrates within the horticultural sector to ensure more sustainable operation. In addition to the introduction of the chemical and physical characteristics of reused substrate, practical application tests will also be visited at the Proefcentrum voor Sierteelt (PCS) Ornamental Plant Research (independent knowledge centre on floriculture & landscaping sectors). Partners from the Operational Group will also present their cooperation with the PCS in developing practical solutions on ornamental plant research.

Further information: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/re-peat-hergebruik-van-teeltsubstraten-voor-een

All practical information on this field day can be found on the event webpage.