Flower strips to increase biodiversity in agricultural landscapes

French farmers, beekeepers and agricultural students join forces to promote biodiversity

For the past three years, the Biodiversité project in the French region of Normandy has been working on biodiversity in agriculture. Farmers, beekeepers and students have joined forces to study the potential of increasing biodiversity on agricultural parcels by planting honey-producing flower strips.

“Boosting the presence of pollinators and other beneficial insects - that is the objective of our project. We want to achieve this by changing the landscape management in our arable farming area. These changes include for instance flowering strips, cover crops and hedges on the edge of the agricultural parcels”, says Audrey Hulmel, project leader of GIEE Biodiversité.

The idea for this project started when a local farmer heard about a beekeeper who had problems in finding farmers with oilseed rape parcels and sunflower fields to feed his 300 beehives. He decided to ask a beekeeper to put beehives next to his arable fields. Moreover, he also planted his first flower strips. As a member of the agricultural network Ecophyto, he asked the project leader to carry out a survey on the bee activity. The results of the survey showed that these flower strips didn’t only serve pollinators, but also the farmer.

Audrey: “The honey-producing flower strips are easy to maintain. Moreover, they attract pollinators, because of the flowers, but also other insects like beetles and hoverflies. These insects eat slugs and aphids, which means that fewer pesticides are needed. Besides that, the flower strips can also help to prevent erosion. The idea was born to form a project group to promote biodiversity. With this project we have committed ourselves to evaluate the benefits of this type of management through surveys and observations.”

The group is led by cooperative Agrial and 8 of its farmer members. Also the apicultural union ACN is participating, federating more than 500 beekeepers. The students of a higher education school for agriculture, Le Robillard, have been studying the pollinators and beneficial insects on the flower strips and the fields in the project.

After three years, the project has achieved interesting results. First, there is a total change in the way pests are managed. For instance, it is no longer necessary to use insecticides against pollen beetles. In addition, farmers now know better how to increase the population of beneficial insects by ploughing as little as possible and limiting the use of herbicides and harrowing or hoeing instead. “When it comes to the flower strips, we have discovered improved management techniques and a better selection of honey plants for the bees and other pollinators. First we only used Phacelia, sainfoin and buckwheat. Now we have added crimson clover, Persian clover, sweet clover, borage and vetch.”

Farmers and beekeepers now understand each other’s issues and goals, which leads to a better and more efficient partnership. However, in the future more research on biodiversity is needed because the beneficial effects of changes in landscape and crop management may only become apparent after 5 years or more. “In a few years, we might conduct more research on hedgerows. Hedgerows are closely interlinked with the flower strips and therefore important for the biodiversity”, concludes Audrey.
Press article short article

Flower strips to increase biodiversity in agricultural landscapes
French farmers, beekeepers and agricultural students join forces to promote biodiversity

Farmers, beekeepers and students have joined forces in the Biodiversité project in Normandy, France to study the potential of increasing biodiversity on agricultural parcels by planting honey-producing flower strips.

“We want to boost the presence of pollinators and other beneficial insects by changing the landscape management in our arable farming area. Honey-producing flower strips are key in our project”, says Audrey Hulmel, project leader of GIEE Biodiversité. “These strips are easy to maintain. Moreover, they attract pollinators, because of the flowers, but also other insects like beetles and hoverflies. These insects eat slugs and aphids, which means that fewer pesticides are needed.”

The group is led by cooperative Agrial and 8 of its farmer members. Also the apicultural union ACN, federating more than 500 beekeepers and students of a higher education school for agriculture, Le Robillard are participating.

After three years, the project has achieved interesting results. “For the flower strips, we have discovered improved management techniques and a better selection of honey plants for the pollinators. First we only used Phacelia, sainfoin and buckwheat. Now we have added crimson clover, Persian clover, sweet clover, borage and vetch.”

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Background information
During the Agri Innovation Summit on 25-26 June in Lisieux, France the participants will visit 8 projects contribution for the transition to agroecology. The ‘Groupements d’Intérêt économique et environnemental (GIEE) Biodiversité’ being one of them. You find the list of field visits here.

The field visits will provide participants with inspiration:
- On how to reduce the use of inputs as a way to increase the autonomy of farms
- Production systems that enable sustainable management of natural resources
- On how agroecology can be better integrated within the value chain, with the consumers, the citizens and the local areas
- On how knowledge sharing, co-creation and dissemination of innovation can be fostered at all levels

More information
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Pictures

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Honey-producing flower strips attract pollinators, because of the flowers, but also other insects like beetles and hoverflies.

Trial of sowing dates, type of plant and techniques in the Biodiversité project

More information on biodiversity

The main results of the Agri Innovation Summit will be published after the event. All information on the AIS summit can be found here.

- The EIP-AGRI Focus Group on Ecological Focus Areas answered the question on how EFAs, specifically landscape features and buffer strips, contribute to the profitability of crop production. Read the fact sheet on Ecological Focus Areas to get all the information of the final report at a glance.

- The EIP-AGRI Focus Group on High Nature Value Farming answered the question on how to make HNV farming more profitable without losing the HNV characteristics. Read the fact sheet on High Nature Value farming to get all the information of the final report at a glance.

Inspiration on biodiversity from your country

Inspirational ideas: Setting up short wood supply chains using hedgerows (FR)
Delivering Farm Profitability and Better Environmental Performance (UK)
A kit to improve soil biological activity (FR)
Horizon 2020 project CAPSELLA: ICT solutions for agrobiodiversity (UK)
Forests for food - Ecosystems for biodiversity, soil health and food (UK)
Preserving soil organic matter and protecting water sources (PT)
HNV-LINK thematic network: how to identify and promote “environmental sustainability tools” adapted to innovation needs in HNV areas? - Presentation at EIP-AGRI workshop (EU)
Operational Groups on biodiversity in your country?

At the beginning of May 2019, the EIP-AGRI Operational Groups database on the EIP-AGRI website included 66 Operational Groups in the EU working on biodiversity:

- Austria: 2
- France: 4
- Germany: 6
- Ireland: 14
- Italy: 15
- Netherlands: 14
- Portugal: 3
- Slovenia: 1
- Spain: 6
- UK: 1

At the beginning of May 2019, the EIP-AGRI Operational Groups database on the EIP-AGRI website included 3 Operational Groups in Ireland working on HNV.

Horizon 2020 Thematic Networks on agro-ecological approaches & organic farming


Thematic networks are multi-actor projects which collect existing knowledge and best practices on a given theme to make it available in easily understandable formats for end-users such as farmers, foresters, advisers etc. More information on [https://ec.europa.eu/eip/agriculture/en/about/thematic-networks-%E2%80%93-closing-research-and](https://ec.europa.eu/eip/agriculture/en/about/thematic-networks-%E2%80%93-closing-research-and)

EIP-AGRI

The European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI) is one of five EIPs which have been launched by the European Commission in a bid to promote rapid modernisation of the sectors concerned, by stepping up innovation efforts. The EIP-AGRI aims to foster innovation in the agricultural and forestry sectors by bringing research and practice closer together – in research and innovation projects as well as via the EIP-AGRI network.

EIPs aim to streamline, simplify and better coordinate existing instruments and initiatives, and complement them with actions where necessary. Two specific funding sources are particularly important for the EIP-AGRI: the EU Research and Innovation framework, Horizon 2020, as well as the EU Rural Development Policy.

EIP-AGRI Operational Groups

EIP-AGRI Operational Groups are groups of people who work together in an innovation project funded by Rural Development Programmes (RDPs). Operational Groups are the EIP-AGRI’s main tool for turning innovative ideas into real solutions for the field. An Operational Group consists of several partners with a common interest in a specific, practical innovation project. The people involved in the Operational Group should bring in different types of practical and, where necessary, scientific expertise. They may include farmers, scientists, agri-business representatives and many others. Every country or region has the possibility to define specific national demands or restrictions on how to put together an Operational Group.

- Visit the Operational Groups page on the EIP-AGRI website
- EIP-AGRI Brochure on Operational Groups: Turning your idea into innovation (update 2016)

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