EIP-AGRI Workshop
Operational Groups: First experiences
20 – 21 April 2016

OPERATIONAL GROUPS

REPRESENTED AT THE WORKSHOP

funded by European Commission

Innobrotics

AUSTRIA

Starting date - expected end date | 01.01.2016 - 31.12.2018

INNOVATION + DIABROTICA VIRGIFERA (WESTERN CORN ROOTWORM)

On basis of a close cooperation between research, consulting and agricultural practices, it is the strategic goal of "Innobrotics" to find and implement innovative approaches concerning the use of alternative methods of pest control, arable crops and animal feed for farms, and to support this process socio-economically in Austria, due to the corn rootworm problems. The participation of farmers within the OG is given by two farmers as active representatives in the areas of crop management and livestock production and by two farmer's representatives from the participating federal states. Their function is to put forward the various ideas and experiences of individual farmers directly to the OG. In addition, the representatives of the farmers, the various service providers and the Chambers of Agriculture Burgenland and Carinthia are invited to the group meetings of the OG. This is to ensure a constant flow and exchange of information. The innovative character of the project is also evident by its integrated approach. Due to the close coordination of the work packages with the project partners, dedicated experts and scientific institutions, and especially based on the cooperative implementation of the strategies developed within the project, a high level of achievement is expected.

Lead partner

Chamber of Agriculture and Forestry Styria

Other partners

Farmers

- One farmer representing the interests of the affected arable farms
- A second farmer representing the interests of the affected livestock farms

Research

- Saatzucht Gleisdorf Ges.m.b.H.

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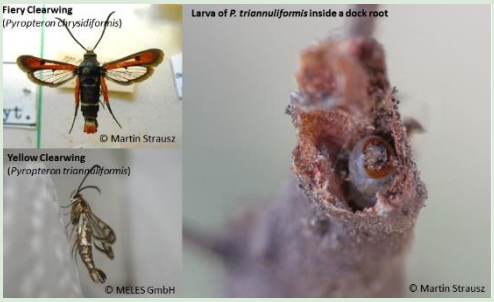
Organic dock control – development and implementation with clearwing moths

Biologische Ampferbekämpfung – Entwicklung und Umsetzung mit dem Ampferglasflügler

AUSTRIA

Starting date - expected end date | 01.01.2016 - 31.12.2018

Broad-leaved docks (e.g. *Rumex obtusifolius*) are very serious weeds in grassland. They have a strong taproot that can cause heavy loss of cattle fodder quantity and quality. Herbicide free measures like digging out the dock-roots or soil cultivation that aim at destroying the roots consume a lot of time, money or physical effort. To date no effective measures for organic dock control using beneficial organisms are available for the grassland farmers. The larvae of certain clearwing moth species (butterflies) feed on and destroy the dock-roots.
The Operational Group „Organic Dock Control" develops and evaluates the application of native clearwing moth species against docks under practical conditions in Austrian grassland. We want to answer the following question: Is the application of clearwing moths as a measure to organic dock control in Austrian grassland management effective and feasible?
Knowledge transfer and cooperation between research and practice during development and implementation is an essential element of the project. Results will be disseminated by field-workshops, presentations, web page and articles. Agricultural professional schools will have a particular role, because they enable a broad transfer of knowledge by the students. If clearwings are a feasible measure, product development will be the next step.



Lead partner

Herbert Mock – Wood trading company

Other partners

Project coordinator | scientific support

- MELES GmbH

Farmers

- Two organic dairy farms in Lower Austria: field trials in practice
- Three associations of organic farmers – field trials in practice:

  Bio Austria Vienna & Lower Austria | Bio Austria Carinthia | Bio Ernte Styria

External partners

- Two agricultural professional schools: knowledge transfer, exact field experiments:
  LFS Hohenlehen | LFS Litzlhof
- HBLFA Raumberg –Gumpenstein: research, school, knowledge transfer, exact field experiments
- AGES -Austrian Agency for Health and Food Safety Ltd.: research, mass-rearing
- University of Vienna, Division of Tropical Ecology and Animal Biodiversity: research, rearing
- Botanical Garden of the University of Vienna: providing plant material for mass rearing
- Austrian dairy farms: field trials in practice
- ÖAG – Austrian Association of Grassland and Forage Production: knowledge transfer

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OPERATIONAL GROUP

Winter Harvest: Seasonal, energy-extensive and innovative vegetable production

Weiterentwicklung – Bio-Wintergemüse

AUSTRIA

Starting date - expected end date | 01.05.2016 - 30.04.2019

Vegetables that are harvested in winter and produced with a low energy input create a new innovative market niche. This niche represents opportunities for farmers to increase their sales because of the potential extension of their existing limited product range in winter. In order to introduce winter vegetable into the local business and to raise the awareness among consumers for this topic, the generation of further expertise is required. The estimated outcomes of the work of the operational group are to find out suitable species and optimal cultivation dates for winter vegetable cultivation to ensure high quality products in the end. The project provides moreover the development of a sustainable packaging solution for the products, the analysis and optimization of the work flow towards winter vegetable production and the development of a sensory „winter vegetable language" as a way to communicate the unique status of winter vegetable to consumers. Furthermore the economic and ecological assessment oft the winter vegetable cultivation is an expected result. The farmers will finally benefit from the existence of a new lucrative market and the available expertise in the field of winter vegetable production.

Lead partner: BIO AUSTRIA

Other partners

Farmers

- Achleitner Biohof GmbH
- Biohof ADAMAH
- Biofuchs Jaklhof
- Natur fair! Dienstleistungs GmbH
- Ökohof Feldinger
- Stechabauer Biohof

Research

- School for Horticulture and Landscape Design Schönbrunn
- FIBL Austria – Research Institute of Organic Agriculture
- Agrotechnical centre Wies
- School for Holticulture Langenlois
- University of Natural Resources
- Ofi – Technology & Innovation GmbH

Innovations broker

- Food Cluster of Lower Austria

Advisory

- Renate Spraul | Eva Derndorfer

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Sweet potatoes – An alternative culture in the Languedoc-Roussillon Region (PADONOV)

La patate douce – culture de diversification en Languedoc-Roussillon

LANGUEDOC-ROUSSILLON, FRANCE

Starting date - expected end date | January 2015 – December 2017

The sweet potato market in Europe gets the more and more important. Europe imported in 2012 80 000 tons of sweet potatoes, France imported 9 000 tons. European importations have been multiplied by 3 in 10 years. Farmers tried to take avantage of this new crop. After a first serie of trials (SUDEXPE-CENTREX 2012, 2013, 2014, 2015) with CIVAMBIO 66 (2014 and 2015) sweet potatoes seem adapted to our local conditions if some basic agronomical rules, like irrigation and fertilisation are respected. The observations of the first trial-cycle resulted in a provisional technical guide in 2014. Our project is focused on an innovative crop : the best varieties on their respective values for the two markets (fresh and transformed for agro-industry), agronomical rules for convential and organic crop. However, sweet potatoes harvested in our conditions are heterogeneous in weight and grades. An important part (between 20 and 50%) of these tubercules is not adapted to the european fresh market. Theses tubercules could be used in the food industry and will in this way increase the rentability for the farmers. One alternative seems in interesting in our region : beer brewed with sweet potatoes and sorghum, a practice well-known in African countries.

Lead partner

SUDEXPE, regional experimental station for fruits and vegetables

Other partners

Advisory

- Chambre régionale d'agriculture Languedoc-Roussillon

Research / Advisory

- CIVAM BIO 66

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Zero herbicides in Mediterranean perennial crops

Zéro herbicides en cultures pérennes méditerranéennes

LANGUEDOC-ROUSSILLON, FRANCE

Starting date - expected end date | March 2015 – December 2018

The project "Zero herbicides in Mediterranean perennial crops" aims to evaluate and promote innovative soil management techniques without herbicides in perennial crops, as vineyards and orchards. Because of water pollution, herbicides are on the spot, and farmers are looking for new ways of working without herbicides. Today, the only effective way to do so is mechanical weed control by tillage, which is time and fuel consuming, aggressive for both soil and roots, increasing soil erosion... Our project is focused on an innovative weed management system, using under row cover crops instead of tillage. Cover crops naturally protect the soil, needs less interventions and therefore save time and money for farmers. 8 experimental fields were set in the French Mediterranean area in order to evaluate the agronomic impact of the cover crop on grapevines or trees, and to screen cover crop species that could fit for a under row setting. In addition, 2 demonstration sites are planned to promote the results to farmers.

Lead partner

French Wine and Vine Institute (IFV)

Other partners

Advisory / applied research

- Chambres d'Agriculture de l'Hérault, du Gard, de l'Aude et des Pyrénées-Orientales
- SERFEL
- CEHM

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ROBUST LAMB | ROBUSTAGNO

MIDI-PYRÉNÉES, FRANCE

Starting date - expected end date | March 2016 – December 2019

MAKE LAMBS MORE ROBUST BY AN AGROECOLOGICAL APPROACH AIMING THE TRIPLE PERFORMANCE (ECONOMIC, ENVIRONMENTAL AND SOCIAL) | RENDRE LES AGNEAUX PLUS ROBUSTES PAR UNE APPROCHE AGROÉCOLOGIQUE VISANT LA TRIPLE PERFORMANCE (ÉCONOMIQUE, ENVIRONNEMENTALE ET SOCIALE)

Lamb mortality is an essential parameter of the sheep productivity and is one of a capital importance for farmers and their sectors. Yet, despite the acquisition of technical and scientific knowledge in the past 10 years, lamb mortality is not declining. One of the areas of progress often put forward is that of producing more robust lambs at birth. This project aims, through the creation of a network with breeders, advisors and scientists to identify transferable and reproducible innovative solutions to reduce lamb mortality by making them more robust at birth. To do so, Open Innovation methods for co-creation, crowd-innovation and cross-fertilisation will be mobilized and as well as the strong involvement of farmers in all stages of the project. The composition of the Task Group allow a multi-actor approach for seeking relevant solutions regarding lamb robustness and to ensure wide dissemination of project results.

Lead partner: Coop de France Midi-Pyrénées

Other partners

Farmer organisations

- CAPEL and UNICOR

Research

- INRA

Advisory

- Chambres d'Agriculture du Lot & Chambres d'Agriculture de l'Aveyron
- Groupement de Défense Sanitaire du Lot & Groupement de Défense Sanitaire de l'Aveyron
- Lycée Agricole de Figeac (Animapôle)

Network

- Coram (Collectif des races des Massifs)

Innovation support services

- Institut de l'Elevage

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Jean-Marc Gautier | +33 5 61 75 44 40 | jean-marc.gautier@idele.fr

ENU-WHEAT – Establishment of a sustainable and environmentally friendly wheat-value chain

ENU-Weizen – Etablierung einer nachhaltigeren und umweltverträglicheren Weizen-Wertschöpfungskette

HESSEN, GERMANY

Starting date - expected end date | **Sowing of wheat with extra permission in autumn 2015; Official start from 01.01.2016 - 31.12.2017**

In Germany a new regulation (DüV 2016) for the application of mineral fertilizer & organic manure exists. The regulation aims to reduce the groundwater pollution with nitrate from agriculture fertilizers, by reducing fertilizer application in average of all plant cultures to 170 kg Nitrogen/ha. Because millers and bakers believe, that flour quality will drastically be reduced by this aim, we started an EIP-AGRI project to demonstrate the feasibility of reducing the application of nitrogen fertilizers from ~200-260 kg/ha down to 170 kg/ha. After contacting the miller management, we could clear up the facts. In detail: the existing quality requirements for wheat kernels are so high (13-14,5 % protein), that farmers are forced to fertilize more nitrogen then plants need for highest yields (~150 kg N for 9 tons yield with ~12,5 % protein). The project-innovation: Only 170 kg nitrogen are necessary to produce wheat with maximum 12,5 % protein in kernel resp. 11,8 % protein in white flour. Better baking performance will be achieved by wheat varieties with high protein quality (ml breadvolume/% protein). The interesting fact is, that the breadvolume is not directly associate with flour protein and has to be controlled by varieties and the optimized baking test OBT. To transpose these innovative scientiffic knowledge to the praxis, we build up a wheat value-chain with our partners. The project is secure by contracts (quality contract with a certifier). The project aims to demonstrate a reliable way to produce sustainable and environmentally friendly wheat. Furthermore the endproduct "regionally groundwater-protection bread" will be an unrivaled brand for consumers and secure the income of all partners.

Lead partner: Forschungsring für biologisch-dynamische Wirtschaftsweise e.V.

Other partners

10 farmers

- For example: Albrecht GbR, Alexander Albrecht, Hof Entenpfuhl, D-61191 Rosbach

Flour Mill

- H. Thylmann GmbH & Co. KG
  Kilianstädter Mühle (name of the mill)
  D-61137 Schöneck
  http://www.h-thylmann.de

Certification Organisation & Internet platform

- Marketing Gesellschaft Hessen (MGH) Gutes aus Hessen GmbH
  Peter Klingmann
  Homburger Straße 9, D-1169 Friedberg
  http://www.gutes-aus-essen.de/unternehmer/innovationspartnerschaften/enu-weizen.html

Research

- Research (field fertilizing trials, nitrate in soil):
  Institut für Pflanzenbau & Pflanzenzüchtung I
  Justus-Liebig Universität Gießen
  Prof. Dr. habil. Bernd Honermeier (deputy lead partner)
  Julia Klussmann
  Schubertstr. 81
  D-35392 Gießen
  https://www.uni-giessen.de/fbz/fb09/institute/plantbreeding/pbau

Knowledge transfer, public work, flour examination (baking lab, OBT)

- Dr. agr. Ludger Linnemann
  Forschungsring e.V.
  Brandschneise 5
  D-64295 Darmstadt

Associated partner

- Hassian Agricultural information & advisory mangement (LLH):
  Landesbetrieb Landwirtschaft Hessen
  Landwirtschaftszentrum Eichhof, Schlossstraße 1
  D-36251 Bad Hersfeld
  https://www.llh.hessen.de/pflanzenproduktion/ansprechpartner-pflanzenproduktion/item/kaeufler-gabriele.html

Bakeries

- Several bakeries around Frankfurt purchase their wheat flour from the OG-partner H. Thylmann GmbH & Co. KG. The bakeries are informed to get the chance to offer a special flour called „Groundwater Pretection Bread". Till now it is not clear which bakeries in detail will join.

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Nutrition for human health: Aquaponic systems in Western-Pomerania

Ernährung für die Gesundheit: Aquaponiksystemen in Mecklenburg-Vorpommern

MECKLENBURG-VORPOMMERN, GERMANY

Starting date - expected end date | **01.11.2015 - 31.10.2018**

At the campus of the University of Rostock African catfish (Clarias gariepinus) is produced in a most modern state-of-the art aquaponic facility – "The FishGlassHouse". Aquaponics, the combination of aquaculture (fish production) and hydroponics (soilless plant cultivation), can meet the demand of ecological and sustainable produced aquatic organisms and plants. In aquaponics, the nutrients for plant growth (nitrogen, phosphorus) derived directly from fish feeds that are digested by aquatic animals and converted by bacteria (nitrification) to plant soluble nutrients. Quality aspect of C. gariepinus will be managed via the manipulation of different feed ingredients to increase the product quality for human health. This could be reached with the increase of n-3 essential fatty acids like EPA (20:5 n-3) or DHA (22:6 n-3) as well as minerals (e.g. potassium). Simultaneously, growth of plants will be promoted, compensated to classical fertilisation by saving resources and money. The innovation of the project is the quality increase of fish and plant products, with the elevation of the nutritional status of fish and improved welfare aspects in a synergistic production environment (aquaponics). With the involved cooperation partners, a new sustainable production line for the regional farmers, gardeners and food processors will be developed to reach the local market demands of Western-Pomerania (Germany).

Lead partner

- Prof. Dr. rer. Nat. habil. H.W. Palm, Department of Aquaculture & Sea-Ranching, Faculty of Agricultural and Environmental Sciences (AUF), University of Rostock, Germany
- Representative: Dipl. agr. Ing. U. Knaus, Department of Aquaculture & Sea-Ranching, University of Rostock, Germany

Other partners

Farmers

- Fischgut Nord eG (18510 Abtshagen, MV, Germany) and "filetas" (Fischgut eG & Co OHG, Abtshagen, MV, Germany) – representatives of regional farmers involved in fish production and processing
- Groenfingers GmbH (18146 Rostock, MV, Germany) - specialist in gardening products
- F&F Fisch und Feinkost Handelsgesellschaft mbH (18069 Rostock, MV, Germany) – fish marketing

Contact: **Prof. H.W. Palm** | +49 (0)381 498 3730 | harry.palm@uni-rostock.de
Department of Aquaculture & Sea-Ranching, Faculty of Agricultural and Environmental Sciences (AUF), University of Rostock (Germany)

Population Management | Populationsmanagement

SCHLESWIG-HOLSTEIN, GERMANY

Starting date - expected end date | 01.07.2015 - 30.06.2018

Small and local populations of old breeds of domestic animals should be preserved in order to ensure long-term genetic diversity. The innovation project works together with farmers and the breeders' organizations, scientist to find solutions for small populations, such as for inbreeding management, influence of foreign blood in Angeln and Red Pied Cattle, use of fresh semen in Angeln Saddleback pigs and developed a mating tool especially for small populations.

© L.Iwon, Arche Warder, Angler Rind

Lead partner: Arche Warder Zentrum für alte Haus- und Nutztierrassen e.V.,

Other partners

Farmers

- Karl Dieter Fischer
- Hardy Marienfeld
- Eike Fandrey
- Prof. Dr. Poggensee
- Susanne und Andreas Krause

Research

- Christian-Albrechts, University Kiel

Associations

- Rinderzucht Schleswig-Holstein eG RSH
- Förderverein Angler Sattelschwein e.V.
- Landesverband Schleswig-Holsteinischer Schaf- und Ziegenzüchter e.V.
- Verein Schleswiger Pferdezüchter e.V.

Advisory

- Dr. Weigend, Friedrich Löffler Institut
- Prof. Dr. Eildert Groeneveld, Friedrich Löffler Institut
- Karola Stier, Gesellschaft zur Erhaltung alter und gefährdeter Haustierrassen e. V. (GEH)

Contact: **Stefanie Klingel** | +49 (0)4329 913426 | klingel@arche-warder.de

Senior laying hens | Seniorlegehennen

SCHLESWIG-HOLSTEIN, GERMANY

Starting date - expected end date | **01.06.2015 - 30.06.2018**

OPTIMIZATION OF ANIMAL WELFARE AND SIGNIFICANT EXTENSION OF THE RESIDENCE PERIOD FOR VITAL SENIOR LAYING HENS IN ORGANIC FARMING | OPTIMIERUNG DES TIERWOHLS UND WESENTLICHE VERLÄNGERUNG DER HALTUNGSDAUER FÜR VITALE-SENIORLEGEHENNEN IM ÖKOLOGISCHEN LANDBAU

The project goal is to significantly extend the lifetime production of organic hens. Six farms with a total of seven flocks are members of the OG and participate actively. Key parameters are developed with the farmers and systematically recorded in the hen houses in order to develop the management of extended residence period in the daily care of laying hens (care and feeding) on farms.
In this project, solutions and their documentation for good technical support management for laying hens to be developed for a residence period of up to two years. The effective parameters to be measured are developed by the participating farmers, the hen flock vet, and scientific support (FLI Celle). At the participating farms a passage of layers over a longer duration will be closely followed. The acquisition of important data is implemented on the farms and standardized. The timely detection and evaluation of the parameters is done with tablet PCs. Practical data collection will continue to be developed with the managers during the duration of the project. Animal welfare indicators are collected on-site by an advisor. This ensures an objective comparison of animal welfare conditions on the farms.
The suitability of the methods for other laying hen holdings is judged by the participating farmers at the end of the project. It should be evaluated whether the developed concept can be used for longer life of organic laying hens on other farms.

Lead partner

Ökoring Schleswig-Holstein e.V.

Other partners

Farmers / advisory

- The group includes six organic working farmers, one veterinarian, and two advisors

Research

- Friedrich-Löffler-Institut in Celle

Contact: **Romana Holle** | +49 (0)171 418 0658

InnoBau – Sustainable innovations in agricultural construction

InnoBau – Nachhaltige Innovationen im landwirtschaftlichen Bauwesen

SCHLESWIG-HOLSTEIN, GERMANY

Starting date - expected end date | **01.09.2015 - 31.08.2018**

The aim of the OG "InnoBau" is to support sustainable innovation in agricultural construction with a new, systematic decision-making process. For this, the group develop and test with participating companies from Schleswig-Holstein, Germany, a tool for a systematic planning management, which is suitable in practice. The planning is supported on real agricultural construction projects for livestock in conventional and organic production.
The process of intensive planning is based on assessment criteria and sub-criteria for sustainable animal housing systems, which were only applied in an elective module by Prof. Hellmuth in the department agricultural studies at the University of Applied Science Kiel. Novel ideas for animal housing systems should be assessed in practice to ecological, economic and social sustainability already during the planning phase.

Lead partner: FuE Zentrum FH-Kiel GmbH with Bjoern Lehmann-Matthaei (www.fh-kiel-gmbh.de)

Other partners

Participating farmers (all located in Schleswig-Holstein, Germany)

- Claus-J. and Nico Andresen, Biolandhof Andresen, Selk
- Bernd and Johannes Bluschke, Hof Bluschke, Brodersby
- Laurence Dungworth, Klaus Tenthoff and Mathias v. Mirbach, Kattendorfer Hof, Kattendorf
- Hartwig Ehlers and Ute Andresen, Hofgemeinschaft Weide-Hardebek, Hardebek
- Finn Johannsen, Johannsen Agrar UG, Sprakebüll
- Dirk Kock-Rohwer, Höllnhof, Böhnebüttel
- Matthias Lehmann, Lorenzenhof, Langballig
- Christian Paulsen, Arlewatthof Arlewatt
- Jasper Metzger-Petersen, Backensholzer Hof, Oster-Ohrstedt
- Christian and Anna Nissen, Friedrich-Wilhelm-Lübke-Koog
- Christian Petersen, Hof Ankersolt, Rüde
- Harald and Yannik Rzehak, Biohof Rzehak, Tüttendorf
- Thomas Scharmer, Hof Dannwisch, Horst
- Simon Schmitz, Hof Kubitzberg, Altenholz
- Armin Schritt, Heringsdorf
- Jakob Tramsen, Hof Tramsen, Dollerup
- Monika and Redlef Volquardsen, Tetenbüll

Research

- University of Applied Science Kiel, Department Agriculture Studies
  with Prof. Dr. Urban Hellmuth, Prof. Dr. Stefan Krüger, Prof. Dr. Yves Reckleben
- Christian-Albrechts-Universität zu Kiel, Department Agricultural process technology
  with Prof. Dr. Eberhard Hartung
- Arbeitsgemeinschaft Landtechnik und Bauwesen Schleswig-Holstein e. V.
  with Prof. Dr. U. Hellmuth

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This leaflet has been created for the Workshop "Operational Groups: First experiences", 20-21 April 2016 in Legnaro, Italy. For more information on Operational Groups, download the **EIP-AGRI brochure on Operational Groups** (available in English, Finnish, French, German, Greek, Hungarian and Italian) from **www.eip-agri.eu**.

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How to build an Operational Group

funded by European Commission