



Focus Group *Organic Farming* Minutes

First meeting, 23rd – 24th September 2013, Newbury- UK

Summary

The first meeting for the EIP-AGRI Focus Group on organic farming was held on the 23rd and 24th September 2013 in Newbury, UK at the Organic Research Centre www.organicresearchcentre.com. Please see the list of participants in the Attachment 1 on page 6. The topic of this focus group is "how to optimise yields in organic arable farming" and the first meeting aimed to identify the main causes of yield gaps (i.e. reasons for which some organic farmers in comparable conditions have lower yields than others). The discussions were framed by the discussion paper, which had been circulated to the group's members in advance. In agreement with the discussion paper, the 18 participating members (2 were excused) identified in an interactive exercise five main areas of causes of yield gaps, i.e. five main areas of further work of the focus group:

- inadequate nutrients supply
- poor soil fertility management
- insufficient weed management
- pest and disease pressure insufficiently managed
- variety choice

These five areas were further analysed and a more detailed discussion on key elements for each of these areas has been scheduled for the next meeting of the focus group. For that purpose, each member was tasked to deliver at least one "mini paper" (see attachment 3 on page 8), in which he/she will analyse the assigned issue and concentrate on providing the list of existing solutions and on proposing (new/innovative) solutions him/herself. These mini papers will be circulated within the focus group prior to the next meeting so that the pool of expertise shared within the group can develop the individual points further.

The group selected Mr Ulrich Schmutz as its chairman. The next meeting will take place on 4-5/2/2014, either in the proximity of Barcelona, ES, or Grosseto, IT (as per members' proposals). The group was generally in favour of both proposals, therefore DG AGRI and the EIP Service Point will inquire into the logistical aspects and will choose venue accordingly.

EIP-AGRI and the Focus Groups:

EIP-AGRI

The agricultural European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI) works to foster competitive and sustainable farming and forestry that 'achieves more and better from less'. It aims at bridging the gap between research and farming practice, focussing on real, existing issues and needs from the 'field'. <http://ec.europa.eu/agriculture/eip/>

The EIP-AGRI Service point

The EIP Service point is constituted of a team of people from different nationalities covering a wide range of expertise. The team acts as a mediator in enhancing communication and cooperation between all innovation actors.

EIP-AGRI Focus Groups

An EIP-AGRI Focus Group is a temporary forum for sharing knowledge and experience on a specific subject formulated by DG AGRI, after having consulted stakeholders. The focus group composition is a balance of scientists/researchers, farmers and advisors. Each member represents him/herself and his/her expertise, not an organisation or a Member State. The experts for the EIP-AGRI Focus Group on organic farming were chosen from almost 150 applications.

- **WHAT ARE THEIR AIMS AND OBJECTIVES?**
These groups of experts explore practical innovative solutions and best practices to problems or opportunities in the field. The groups also discuss and document research results and/or needs for further research activities that have helped or may help to solve the problems in the sector.
- **HOW DO THEY WORK?**
The group of 20 experts is facilitated by several members of the EIP-AGRI Service Point. The group is chaired by one of the experts who is selected by the group during the first meeting. A discussion paper is prepared before this first meeting by EIP-AGRI Service Point in order to identify the points of discussion.
- **WHAT IS THE PRODUCT OF A FOCUS GROUP?**
The group should produce a list of solutions: existing (under-used) solutions, innovative solutions from other sectors, solutions or pathways that may need further development/marketing/dissemination/exploration or solutions which have not yet been developed and for which experiments need to be conducted. The group may also give recommendations for further research activities. The group will develop a report which will be published online, feed a database which will be available to all agricultural players across Europe, give recommendations to be the basis for operational groups, topics for Horizon 2020, etc.

For more details, please see the Focus group charter:

http://ec.europa.eu/agriculture/eip/focus-groups/index_en.htm

Monday 23rd September 2013

The focus of the first day was on the group members getting to know one another, to learn about EIP-AGRI and the aims of the Focus Groups, to familiarize themselves with the discussion paper and to get an introduction to the policy context (provided by IFOAM). At the end of the first day, the group visited an organic farm in the proximity (see photos below from the Sheepdrove Organic Farm in Lambourn www.sheepdrove.com, an organic farm with a diverse range of activities. This farm has developed specific solutions related to the sustainability of the farming systems from soil management to the improvements of product qualities, with a focus for wheat on low gluten heritage varieties.



Tuesday 24th September 2013

The aim of the second day was to set priorities of further work of the focus group. The debates built on the discussion paper (see attachment 2 on page 7), identifying the bottlenecks which provoke the weaknesses of organic farming performance and consequent solutions, recommendations and proposals.

Developing the outputs

Agreements made on terminology:

- TOPIC: "OPTIMISING ARABLE CROP YIELDS AND ECO-SYSTEM SERVICES IN ORGANIC SYSTEMS" (ie. Optimising organic arable farm performance. Where "performance" stands for production, quality + ecosystem service...)
- "ARABLE CROPS"- crops which are on a rotation: cereals, pulses, rapeseed, legumes, field scale vegetables- potatoes, onions, carrots (relation of agro-forestry to rotations), (seed production included). **Not!** Permanent pasture, perennial crops, protected crops.
- "YIELD AND OTHER OUTPUTS"- includes profitability, sustainability, quality and quantity.

Activity to develop the discussion paper

The 5 main themes from the discussion paper were written on boards with an extra one for any important themes that were missing. The boards were divided into a section for "problems/causes" and one for "solutions and/or needs". The experts identified the keywords for each section on Post-its and placed them on individual boards. The Post-its could then be grouped into main areas of problems/solutions/needs per theme. The experts then voted on the themes and sub-themes they felt should be tackled in detail by this Focus Group.



Conclusions and outcomes of the activity

Between the 5 main factors negatively influencing the efficiency, the sustainability and the productivity of organic arable systems, the highest importance was attributed to "Poor soil fertility management" (18 votes) and as second major cause was identified "Inadequate nutrients supply" (13 votes). Lower importance and almost at the same weight was recognised as "Pest and disease pressure" (11 votes), "Variety choice" (10 votes) and "Insufficient weed management" (8 votes). Some horizontal issues that should be considered when seeking solutions to improve the performance were also identified.

The group looked deeper at each factor and analysed their main components. Certain aspects were identified as of utmost importance and potentially offering the solutions to overcome the yield gap, and for each of these, a group of experts has agreed to develop a 'mini-paper' (max 3 pages). These would feed the report following the meeting, and the content of the next meeting. The mini-papers must include existing solutions to the problems that they know of, and/or recommendations for further research etc. (For the list of which expert is working on which theme, please see Attachment 3). Here below is a diagram explaining the results of the activity:

“Optimising arable crop yields and eco-system services in organic systems”

Higher importance

Poor soil fertility management

Crop rotation, tillage and composting were identified as main aspects of the problem, followed by systems approach, organic matter management and new fertilisers

Mini-papers:

CROP ROTATION – TILLAGE – COMPOSTING – FARMING SYSTEM

Inadequate nutrients supply

Building innovative mixed farming systems and improving of organic matter management are equally considered of major importance, followed by the production of improved organic fertilisers together with knowledge tools, such as software and models (see previous).

Mini-papers:

ON THE TOPIC AS A WHOLE AND, WITH A SPECIFIC LOOK AT MIXED SYSTEMS

Lower importance

Pest and disease pressure

The factor was subdivided in several aspects and by far the main element is identified with functional biodiversity. ICT, system approach, breeding and composting follow but with a much lower degree of importance.

Mini-papers:

FUNCTIONAL BIODIVERSITY – BIOTECH (USE OF, POTENTIALS OF, TO INCREASE RESISTANCE)

Insufficient weed management

The large majority of the participants gave importance to ICT and mechanical tools development. As for many other factors the system approach was also mentioned.

Mini-papers:

ICT AND MECHANICAL TOOLS

Variety choice

Main importance is given to solve legal constraints (EU seed regulation). After that the seed production on-farm and the definition of different breeding characters and systems got higher scores.

Mini-papers:

ON-FARM SEED PRODUCTION
LEGAL SOLUTIONS
BREEDING CHARACTERISTICS

Horizontal issues

The need to enhance the knowledge generation and exchange among practitioners, including advisors and researchers, both on research outcome and practical experiences. The knowledge issue was mentioned also within the analysis of each factor and identified as major key aspect **MP**

The need to consider the “yield” as “system yield” and to include in the assessment quality, environmental services etc. In general a more systemic approach is claimed, where to include also new systems (agro-energy..) and specific systems (Mediterranean, Alpine, Nordic..)

The cultural constraints that need to be overcome in order to assure all actors (consumers, researchers, farmers, advisor, policy makers...) are able to have a thorough assessment of agriculture

The need to adapt to climate change in order to maintain yields; e) the need to include socio-economic evaluations while assessing the productivity of the systems. **MP**

Next meeting- 4th and 5th February 2014.

These dates were agreed upon by the group. Out of several suggestions for a venue of the next meeting, made by the group, two concrete proposals have been submitted in written, one in proximity of Barcelona, ES and one in proximity of Grosseto, IT. The group was in favour of both proposals and therefore the EIP –AGRI Service Point will inquire into the logistical aspects and the venue will be selected accordingly.

Contact

A contact list has been created of phone numbers, email addresses and photos of all of the experts and including the facilitation team.

Attachment 1: Participants

EXPERTS:

Johann Bachinger (Scientist)
Stéphane Bellon (Scientist)
Inger Bertelson (Advisory services)
Miguel Brito (Scientist)
Véronique Chable (Scientist)
Monica Coletta (Adviser)
Alfred Grand (Farmer, involved in research)
Karl Kempkens (Adviser)
Chris Koopmans (Scientist)
Marco Locatelli (Farmer)
Luisa Manici (Researcher)
Benoit Nezet (Adviser)
Nadia Riguccini (Farmer and agronomist)
Joan Romanyà (Scientist)
F. Xavier Sans Serra (Scientist)
Ulrich Schmutz (Scientist)*
Aira Sevon (Farmer)
Jozef Tyburski (Researcher, also a farmer)

TASK MANAGERS:

Lukas Visek (DG AGRI)
Pascal Dagron (EIP Service point)
Sarah Beigel (EIP Service point)
Cristina Micheloni (EIP Service point)

GUESTS:

Susanne Padel (ORC)
Marco Schlüter (IFOAM)

EXCUSED:

FG expert- Wijnand Sukkel (Scientist)
FG expert- Maria Wivstad (Scientist)

* **Ulrich Schmutz** was identified as the chair person to chair the discussions for the following meetings, and act as a representative of the experts



Attachment 2: Extract of the Discussion Paper

Ms Cristina Micheloni was recruited to the EIP Service Point as the key expert for this focus group and she drafted, in cooperation with colleagues in the EIP Service Point and DG AGRI, the discussion paper (distributed to all members before the meeting). The aim of the discussion paper was to introduce and to frame the topic and to provoke debate within the group.

Summary of the Content:

How to reduce the "yield gap" between organic and conventional and how to enhance the performance of less productive organic farms to the level of the "best organic practices"? Practical experience and scientific evidence allow to identify the major factors causing a reduced yield and also some proposals in how to approach the problem. They are:

INADEQUATE NUTRIENTS MANAGEMENT

This more frequently concerns nitrogen deficiencies but it also relates to other nutrients (P, K and meso-nutrients). The reason is that fertilisation in organic farming is based on long-term management which includes crop rotation, crop residue incorporation, use of compost etc. The effects of such management become evident after some years, when the soil reaches a balance, but it needs an initial "investment" that not all farmers can do or know how to do. Organic fertilisers are used only in emergency cases but they have a low concentration of nutrients. Slow release of nutrients and their efficiency depends very much on the crop management and climatic conditions.

POOR SOIL FERTILITY MANAGEMENT

This is very much linked to the previous point but it also influences the overall capacity of the soil to host the plants and, as a consequence, their resilience to stress. The solution stays in the accurate planning (of the rotation, of the organic matter use, of the crop residues use, of the soil labors, of irrigation, etc.) and requires time. Many organic farmers are still in the building phase or have difficulties in coping with maintaining the balance they have reached due to lack of organic matter, market pressure that clashes with rotation, lack of good equipment and skills. The quality of the soil is a key point in the organic management. Poor soil conditions and inadequate investment in its improvement seriously affect the farm performance over the years.

INSUFFICIENT WEED MANAGEMENT

This is a major obstacle especially for spring sown crops and crops with a slow early development (i.e. corn). It induces more problems in newly converted farms as appropriate crop rotation slowly but efficiently reduces the seed bank. Nevertheless the need for specialisation in a few crops (market pressure) often negatively affects the rotation and therefore the agronomic weed management.

PEST AND DISEASE PRESSURE NOT SUFFICIENTLY MANAGED

Common bunt, phytophthora, corn borer and other pests and diseases usually affect organic crops with less strength due to the diversification of the farm and of the crops. Nevertheless, in areas and years with difficult conditions they cause huge losses. This is due to the use of non-treated seeds and the plant protection products allowed in organic have a preventive effect but their effect is limited when the pest or the disease is already attacking the plant.

VARIETY CHOICE

As organic farmers mainly use varieties selected for conventional systems, there is insufficient availability of adapted genetic materials. This means materials which are resistant to major pest and diseases but also adapted to local climate and soil, to the organic cropping system, as well as qualitatively fit to organic demands and processing needs. Locally and "organically" adapted seeds would contribute to solving the majority of problems illustrated in the previous points.

Attachment 3: Authors of the mini-papers by theme

THEME	PEOPLE WORKING ON IT
Insufficient Weed management: ICT + mechanical tools	F. Xavier, Ulrich, Wijnand
Pest and diseases: Functional bio-diversity	Luisa and Inger
Pest and diseases: Biotech problems	Luisa
Poor soil fertility: Farming systems	Nadia, F. Xavier, Joan, Luisa
Poor soil fertility: Crop rotation (including pests and diseases management – compost, system, ICT)	Johann, Stéphane, Véronique, Maria
Poor soil fertility: Composting	Monica, Alfred, Miguel
Poor soil fertility: Tillage	Wijnand
Inadequate nutrients supply- as an overall theme	Chris, Karl, Miguel, Aira (Mixed and other systems), Maria
Variety choice: On-farm seed production	Nadia, Aira, Véronique
Variety choice: Legal solutions	Marco
Variety choice: Breeding characteristics	Benoit
Other: Adaptation to Climate Change	Jozef
Knowledge sharing	Cristina
Knowledge Ideas for a new disclosure in organic agriculture	Marco