

INTERVEG
Enhancing multifunctional benefits of cover crops – vegetables
intercropping

Deliverable title

Press releases

INTRODUCTION

During the whole life-cycle of the project, specific dissemination activities have been developed for different target groups.

More in details, three press-releases in English language were prepared by AIAB with input from other partners at month 3, month 19 and at the end of the project. The press releases have been used in order to promote the project on local press and on partners newsletters and websites at national level. Constantly, during the entire project period, each partner produced articles and short press releases on national languages in order to promote the dissemination of project activities towards practitioners in appropriate format and language.

PRESS RELEASE 1

INTERVEG Project at the start

On September 2011, the kick-off meeting of the INTERVEG project – took place in Monsampolo del Tronto (AP). InterVeg (*Enhancing multifunctional benefits of cover crops – vegetables intercropping*) aims and approach follow the *eco-functional intensification principle* as mentioned in the “Strategic Research Agenda for organic food and farming” developed by the Technological Platform “Organics”.

Cover crops in organically managed agro-ecosystems represent an important tool to manage at once soil fertility, pests, diseases and weeds. Cover crops are usually not so common in specialized vegetable systems but they can be introduced as living mulch, intercropped with cash crops. If this management option is chosen it is important to reduce the competition between main and cover crop and to use a crop management strategy able to optimize the ecological services within the field and the farm as a whole.

INTERVEG, funded by the ERA NET call CORE ORGANIC II, represents an important opportunity for the partners from four different EU countries to create synergies among their national experimental activities in order to evaluate the effect of introducing living mulches in organic vegetable production systems. It means to include different vegetable crops and also cash crop species in different environments, to obtain several positive effects, through specific management strategies .

The evaluation on environmental impacts and profitability of living mulch in vegetable production systems, in comparison with sole crop systems is the main focus of the project. The two systems will be compared in term of yields, use of off-farm inputs, nutrient management, energy

consumption in different European areas where open field organic vegetable production play an important role in economic terms and as surface involved .

Field experiments will be carried out from different partners in Denmark, Germany, Italy and Slovenia. Two yielding crops will be identified for each study areas according to economic relevance, season of the cropping cycle and the possibility of represents a “model crop” for a larger crop group with similar characteristics.

Cover crop sowing period, root pruning as well as spacing or yielding crop and cover crop density are the relevant factors that will be investigated in order to optimize the performance of the intercropped agro-ecosystems in comparison with the sole crop systems.

Since also commercial organic farms will participate to the project as pilot farms , the results will allow to consider the effect of living mulch at larger scale, such as impact on pest and beneficial insects but also to encourage farmers involvement and to support dissemination activities.

Finally the project will produce a specific report on the benefits for the community produced by the inter-cropping techniques. The report is aimed to local, regional and European policy makers. Environmental benefits, such as higher land use efficiency and a more effective use of nutrients, will be included in the report.

Project Coordinator:

Stefano Canali, Agricultural Research Council. *Research Centre for the soil-plant system Rome – ITALY*

PRESS RELEASE 2

The InterVeg partners have settled parallel experimental fields in 4 EU countries (Italy, Denmark, Slovenia and Germany) in order to evaluate the effect of introducing living mulches in organic vegetable production systems. Cover crop sowing period, root pruning as well as spacing or yielding crop and cover crop density are the relevant factors that are under investigation in order to optimize the performance of the living mulched agroecosystems in comparison with the sole crop systems. The selected yielding crops have been identified as cauliflower for the 4 countries, artichoke for Italy and leek for the other countries. A total of 8 field experiments have been carried out in the first year of the project and a detailed list of common measurement has been collected in each location. The data collected include yield and marketable yield, number of plants, N/P/K content, soil, water, competition indices for weeds, cover and cash crops. In addition data on pest and beneficial, energy consumption and costs have been also collected. Since also commercial organic farms are involved in the project as pilot farms, the results are allowing to consider the effect of living mulch at larger scale, such as impact on pest and beneficial insects but also to encourage farmers involvement and to support dissemination activities. The first field visits have been held in Italy and Denmark showing to local farmers both experimental and pilot farm field of cauliflower with living mulch. This direct involvement of local stakeholders will start this summer in the other countries with both pilot farms and field days.

PRESS RELEASE 3 (FINAL)

INTERVEG Project results

Cover crops in organically managed agro-ecosystems represent an important tool to manage at once soil fertility, pests, diseases and weeds. Cover crops are usually not so common in specialized vegetable systems but they can be introduced as living mulch, intercropped with cash crops. If this management option is chosen it is important to reduce the competition between main and cover crop and to use a crop management strategy able to optimize the ecological services within the field and the farm as a whole.

InterVeg project (*Enhancing multifunctional benefits of cover crops – vegetables intercropping*) was funded by the ERA NET call CORE ORGANIC II and involved partners from four different EU Countries to evaluate the effect of introducing living mulches in organic vegetable production systems. Field experiments has been carried out from different partners in Denmark, Germany, Italy and Slovenia both in experimental sites and pilot commercial farms. The project produced several results that are presented in detail by scientific papers developed within the project.

The results obtained in the InterVeg project demonstrated that “opportunely selecting the strategy to introduce and manage living mulches, the yield and the product quality of vegetable crops are not reduced in respect to the sole crop systems” declare Stefano Canali, InterVeg project coordinator.

The project observed these evidences in a range of different vegetable cropping systems, climatic and soil conditions. Project results indicated also that “the cash crop genotype did not affect the performance of the living mulched vegetable systems”. Farmers could then select the genotypes to grow in accordance to their own preferences and/or on the basis of the market request, when they use living mulch.

The project delivered specific results in term of ecological services delivered by the LM to the system. “Living mulch showed, in many cases, the potential to reduce weed emergence and development as well as their detrimental effect on cash crop performance”, thus limiting the need for mechanical cultivation to control weeds in organic vegetable systems, under different climates.

The researchers involved in the project observed also a “general positive influence of the living mulch technique on plant/soil systems”, due to a high level of soil biodiversity and a general lack of negative effects on the occurrence of pests, also showing to prevent, in some cases, aphid infestations. The effect of the living mulch system versus the sole crop system on the risk of nitrate leaching was found to vary highly depending on the local conditions, the crop species and the management: differences were observed between the so called “additive” and “substitutive” living mulched systems. Finally, “Human labour and fossil fuel energy use slightly increased in living

mulched systems” and we also observed that the implementation this practice may determine a shift in the proportion of fossil fuel and human energy consumption.

The on-farm research carried out in the framework of the INTERVEG project and the organisation of regular field days during the project lifespan, have played an important role for validating and developing the findings about LM. The farmers’ acceptance towards the LM techniques can be considered as quite high, even though their right thinking and their critical considerations about yield quality and quantity have to be taken into consideration in order to set up future research activities based on LM.

Project Coordinator:

Stefano Canali, Agricultural Research Council. *Research Centre for the soil-plant system Rome – ITALY*

Project Partners:

Agricultural Research Council. *Research Unit for vegetable crops of Monsampolo del Tronto (AP) and Research Centre for the soil-plant system. – ITALY*

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