

European Research Alliance ERA Pesticide Free

Towards a chemical pesticide free agriculture



6 March 2024

Every two weeks, this newsletter will be prepared by a different Alliance member. Today we are happy to share a contribution from the Sant'Anna School of Advanced Studies (SSSA) of Pisa in Italy.

Connecting farmers, researchers, and agri-tech advisers: the experience of IPMworks

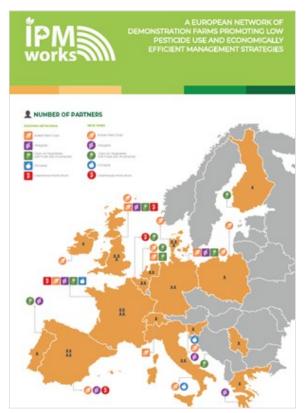
The Group of Agroecology of Sant'Anna School of Advanced Studies (SSSA) of Pisa, together with 31 partners in 16 European countries, is implementing a participatory research project aimed at reducing onfarm pesticide use.

The project, called **IPMworks**, brought together an EU -wide network of farmers, researchers and advisers committed to pesticide use reduction. The goal is to identify with farmers the main challenges related to crop protection and demonstrate that pesticide reduction is feasible and cost-effective when combining the five pillars of IPM.

Recently, SSSA researchers and advisers released an interview for a national agricultural magazine, to illustrate the progress made with the two Italian farmer hubs. Located in Tuscany (Italy), they gather 30 farmers working on olive groves and arable crops. <u>Here</u> you can read the article (in Italian).

To ensure knowledge transfer and dissemination of project results, IPMworks published about 50 videos on its YouTube channel and created free elearning modules on Integrated Pest Management.

The next appointment is the IPM Conference 2024, organised in collaboration with the IPM Decisions project, which will be held in Brussels on 14 May 2024. More information can be found on this page.



IPMWorks Partners and Farmer Hubs (click <u>here</u> to enlarge the image)



Giovanni Pecchioni hub coach interviewing cereal farmer Simone Bensi in his own farm at Volterra (PI) during wheat harvest.

Education and science take the field with the event "Agroecologia al Centro" (Agroecology Day)

Next May, in Pisa, professors, researchers and students of agricultural sciences will take the field to meet farmers and technicians during the "Agroecologia al Centro" event. During this day, scientists will present and discuss the results of their experimental trials conducted locally.

Through the Agroecology Day, the Plant Sciences Research Center of Scuola Superiore Sant'Anna, together with the "Enrico Avanzi" Agro-environmental Research Center and the Department of Agricultural, Food and Agro-environmental Sciences of Pisa University, confirm their commitment to the study of agroecological practices.

The role of diversification in agriculture will be revealed through three educational paths in experimental fields at different levels:

- at genetic level, to increase plants' adaptability to environmental conditions, as well as improve the 1. stability of yields and product quality;
- 2. at crop level, to increase biodiversity in agricultural systems through legume intercropping;
- at landscape level, to implement the sustainability and resilience of agricultural systems with 3. agroforestry, i.e. intercropping of woody perennial crops with arable crops and/or livestock.

Now in its 7th edition, "Agroecologia al Centro" is an opportunity to visit on-field experimental trials and discover their results, as well as to promote the transition of agri-food systems towards ecological sustainability.

Stay tuned for dates and tracks following on social media (Twitter, Facebook, Instagram) @GoAgroecology



Prof. Daniele Antichi presenting a Lentil trials together with dr. Elisa Lorenzetti and dr. Lara Abou Chehade. Pisa 30.05.2024

Study Shows Feasibility of High-Yield Sunflower Using Vetch and Roller Crimper, without **Glyphosate**



A 3-year in farm study by researchers at the Scuola Superiore Sant'Anna and University of Pisa demonstrates that using vetch as a cover crop can effectively control weeds when transitioning to no-till sunflower farming, eliminating the need for glyphosate herbicide, if crimper roller is applied at right time.

The vetch mulch protected the soil, provided nitrogen, and suppressed weed growth when crimped at flowering stage using a roller tool. Sunflower crops planted after vetch, devitalized at proper time, had equal or higher yields compared to traditional methods relying on glyphosate.

The results show the potential for efficient, productive no-till farming systems with no herbicide by optimizing services from cultivated biodiversity. This addresses the urgent need for innovative solutions aligned with EU policy direction on phasing out glyphosate.

This 3-year study demonstrates an effective approach to reduce reliance on glyphosate herbicide in no-till sunflower farming.

Read the full open access article for more details on the methods, results, and potential impact: https://doi.org/10.1007/s13593-022-00815-2.

Sunflower direct seeded on hairy vetch dead mulch in a farm in Pisa plain (Italy)

This is the newsletter of the European Research Alliance Towards a chemical pesticide free agriculture Visit the Alliance's website: https://www.era-pesticidefree.eu/

This issue has ben prepared by <u>Sant'Anna Pisa</u> as a member of this Alliance. If you would like more information about this issue, feel free to <u>contact them</u>.







