

# Networking could enhance the use of sustainable agriculture practices

October 5 2016, by Janne Hansen

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Weeds, diseases and animal pests can make life miserable for agricultural crops and curtail their yield. Pesticides are one tool that farmers can use to control plant pests and protect agricultural crops. However, sustainable agriculture calls for a wider range of tools to keep the use of pesticides to an optimal minimum.

Integrated pest management is the solution, but getting farmers to implement it is challenging. A group of European scientists, including from the Department of Agroecology at Aarhus University, has focused on this issue, and they suggest that networking is a powerful approach to solving the problem.

Integrated pest management faces a wide range of challenges. Climate change, development of pesticide resistance, and development of virulence that matches host resistance are external factors that must constantly be taken into account.

A trend toward decreasing budget allocations for research in [integrated pest management](#), increasing scarcity of expertise, lack of [knowledge transfer](#) from research to practice, communication gaps, and lack of cross-disciplinary research are internal hurdles that inhibit the use of integrated pest management (IPM). There is hope, though.

"There is increasing awareness that transnational networking is one means to overcome such challenges and to address common priorities in agriculture," the scientists state in an article published in the scientific

journal *Crop Protection*.

## Three ways to improve networking

Many stakeholders are involved in [crop protection](#), including farmers, advisors, researchers, [policy makers](#) and commercial companies.

"Crop protection needs to be coordinated through effective communications and dynamic collaboration to make any IPM strategy successful," the scientists write.

There are already various networking activities in the field of IPM. However, networking in IPM can be boosted and its impact can be widely increased. The scientists describe three specific recommendations based on a decade-long IPM networking experience in Europe:

- More researchers could benefit if existing networks improved communication between research organizations in Europe and worldwide. Even when specific crop protection problems are different, one can learn from approaches applied elsewhere. Opening of collaborative, long-term experiments to researchers from different institutions could optimise research costs and results.
- Improved networking between researchers and advisors could increase the flow of knowledge and information to farmers about the latest developments and technological applications. Knowledge transfer can grow and improve if advisors are involved in defining research projects from the start, thus ensuring sufficient research in the socio-economic context of farmers. Foresight studies with multiple stakeholders, such as researchers, farmers, advisors and policy makers, can define groundbreaking research themes for the future that are not

readily available for application in the field, but in line with expectations of multiple stakeholders.

- Improved structuring of knowledge generation approaches in IPM and the respective outputs, and improved communication and dissemination in the IPM networks will allow policy makers to evaluate hot topics that need legislation. Participation of policy makers in the knowledge generating process can increase the effectiveness of newly proposed guidelines and legislations. International networks can provide examples for structuring local IPM networks involving multiple stakeholders aiming at self-governance.

The main impact of following the scientists' recommendations would be to open up the specific networks for sectorial users to create real multi-actor networks for IPM.

**More information:** Jay Ram Lamichhane et al, Networking of integrated pest management: A powerful approach to address common challenges in agriculture, *Crop Protection* (2016). [DOI: 10.1016/j.cropro.2016.07.011](https://doi.org/10.1016/j.cropro.2016.07.011)

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