



Factsheet: Contribution to the EU survey on precision farming technologies

“If biodiversity is to be restored in Europe and opportunities are to be created for crop production utilizing biodiversity-based ecosystem services such as biological pest control, there must be a Europe-wide shift towards farming with minimum use of pesticides over large areas”
(Geiger, F. et al. 2010)

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PAN Europe recalls that precision farming as standing alone will neither be able to fulfil the requirements of the EU Directive on Sustainable Use of Pesticides nor be able to encourage the transition towards a more ecological model of farming that the EU desperately needs. Instead, precision farming will ‘only’ be able to help farmers stop overuse of pesticides allowing farmers to spray less.

EU survey’s current consultation on precision farming technologies (PAT)¹ explains: *“Precision Agriculture involves the use of automation, remote sensing, information and communication technology and other technologies to improve the efficiency of key agricultural management practices by targeting specific areas or crops.”*

Pesticide Action Network Europe (PAN Europe) and its members have decided to reach to the ongoing survey as the EU survey claims that PAT:

“help farmers produce using less or no chemical input, fewer resources and potentially to reduce production costs. The application of PAT can potentially contribute to increase the economic, environmental and social performance of farms.”

Using following arguments in favour of PAT:

- *allowing for decreasing the use of chemical input harmful for the environment*
- *offering alternatives to the use of chemical inputs*
- *enhancing adaptation and resilience to adverse weather events*
- *improving time saving, less demanding work*
- *potentially increasing farmers’ income*

1. PAN Europe opposes to the definition of PAT made in the EU survey

PAN Europe and its members oppose to the statement that **“PAT help farmers produce using less or no chemical inputs”**. A more correct statement would be (like appear in the second sentence) to say that **“PAT can help farmers...”** **However, we believe that the only “smart approach” is encouraging farmers to work with nature not against!**

While PAN Europe recognises that the machineries can replace the use of herbicides, we wonder how PAT would be able to offer alternatives to the use of other categories of pesticides (insecticides, fungicides etc)? Also, we doubt that PAT will be able to increase farmers tolerance levels towards weeds, will be able to kick of a debate on the economic threshold levels encouraging the farmers to start thinking longer term in a holistic approach. Finally, it is worth recalling that the concept of precision farming risk to move farmers’

¹ <https://ec.europa.eu/eusurvey/runner/PrecisionFarming>

dependency from being dependent on chemical companies to become dependent on machineries. **Therefore, we do consider that PAT is to a large extent ‘business as usual’ without being able to ‘help farmers produce using less or no chemical input, fewer resources and potentially to reduce production costs’.** What is needed is to encourage farmers to start working with nature again (See below).

2. PAN Europe and its members believe that PAT will not be able to fulfil the requirements of the Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides (SUDP)

The SUDP specifies that as from 1 January 2014: “*all professional users of pesticides switch to practices and products with the lowest risk to human health and the environment among those available for the same pest problem.*”

Since introduction of the SUDP increasing number of studies show that farmers are over-reliant on pesticides:

- Jacquet F. et al. 2011: pesticide use can be reduced by 30% without consequences for yields and margins
- Lechenet et al. 2017: pesticide use can be reduced by 42% in 59% of the (946) farms studied without consequences on yield
- Skevas & Lansink 2014: Dutch arable farms show that – if comparing with profit maximizing levels – overuse 100% herbicides, 86% fungicides and 67% insecticides.
- Pedersen et al. 2012: One third of studied Danish farms does not optimise profit but rather apply pesticides to maximise yields.

A number of EU reports says that farmers apply shorter rotations than in the past:

- Danish fact finding report reveals that controlling grass-weeds is becoming an increasing problem due to higher concentration on winter crops (with higher revenue) rather than having better rotation with more spring crops, which could facilitate more cultural control. The Competent Authorities are aware of this issue, but to date they have not introduced any specific initiative to promote better rotations.
- Swedish fact finding report states the lack of alternatives to cereal crops, or poorer financial returns from these alternative crops (for example, the only large-scale buyer of peas closed), leading to an over-reliance on cereals, and a sub-optimal rotation on some farms.

And finally, the French government in 2008 introduced an overall quantitative reduction target of 50% pesticides use to be reached by 2018, but ended up actually having increased their pesticide use.

It is time to seriously reduce EU’s farmers’ dependency on pesticides use. The way forward is not concentrating EU funding on big machines which will just create new dependencies. Instead, the way forward is encouraging farmers to a stepwise approach to think about advanced agronomic practices to strengthen soil health, maintaining/creating landscape features to attract predators of crop pests, pollinators, and encouraging the much-needed ecological transition. It is instead time to integrate concepts like redesigning and rewilding of the farming system in an approach to start working with nature (rather than against it) along permaculture and agro-ecological lines.

As mentioned in [PAN Europe's publication](#), alternative methods in weed management or the use of glyphosate and other herbicides:

We would like to recall what BHU Future Farming Centre, Permanent Agriculture and Horticulture: Science and Extension has previously said:

“With Chemical Weed Management most of the skill and knowledge lies with the biochemist - farmers and growers just follow the instructions. With Non Chemical Weed Management (NCWM) most of the skill and knowledge lies with the farmer and grower. Effective NCWM is impossible if you don't understand weeds /plants and how they interact with their environment”

The FAS we need in the future is a FAS shifting the knowledge from the biochemist to the farmer and grower, so the latter needs some significant up-skilling but this would allow him or her to start working with nature again. .

3. PAN Europe regrets that this EU survey does not ask questions to the national authorities regarding their use of alternatives to pesticides

The EU Survey is especially targeted at EUs farm advisory systems. The same bodies who according to regulation (EU) No 1306/2013 on the financing, management and monitoring of the common agricultural policy article 12.2 (e) shall be able to inform farmers on alternatives to pesticides in like with *requirements at the level of beneficiaries as defined by Member States for implementing Article 55 of Regulation (EC) No 1107/2009, in particular the requirement referred to in Article 14 of Directive 2009/128/EC.*

In reality this means that any EU farmer as from 2015 has a right to be informed by the FAS about alternatives to pesticides. But, as an access to document request done by PAN Europe shows, so far, the EU has not been verifying if Member States are implementing this aspect. It is therefore a pity that the EU survey highlighting that PAT can be used to encourage farmers to use less or no pesticides, does not even have one question within the EU survey zooming into how this is actually possible (and being done).

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Pesticide Action Network Europe (PAN Europe) was founded in 1987 and brings together consumer, public health, environmental organisations, and women's groups from across Europe. PAN Europe is part of the global network PAN International working to minimise the negative effects and replace the use of harmful pesticides with ecologically sound alternatives.

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