

Precision farming: the right technology and sharing knowledge are key

Jacob van den Borne is a precision farmer from The Netherlands. He is a member of the EIP-AGRI Focus Group on Precision Farming and feels strongly about the importance of sharing knowledge for agricultural innovation. See the animated video he has made about precision farming at the bottom of this article (in Dutch with English subtitles).

We had a chat with him about his work:



How did you become interested in Precision Farming?

In 2000-2002 I took part in a practical training course in a factory making potato harvesting machines. I was part of a team carrying out research into the yield measurements that the machines were capable of making. I had to test the yield mapping system of the potato harvester which was something very new at the time.

This was very inspirational work, so when my brother and I took over our father's farm in 2006 we immediately decided to apply precision farming.

We didn't follow any specific training, we taught ourselves. Precision farming was relatively new in Europe at the time, but there was enough information available from other countries in the world. We visited (and we still visit) farms in many countries, including a farm in Scotland which has been using precision farming for over 20 years. We filtered out the best technologies, the most adapted processes to our context thanks to visits and networking.

So now all of our decisions are made based on measurements – the soil, the weather, plant growth, everything we can measure we measure! We work with 3 universities and are constantly developing our techniques.

How has Precision Farming contributed to your enterprise?

It has improved the yield and the quality of our crops (potatoes, sugar beet, maize). Along the way we have also identified things that we were doing wrong, and so we are changing those to improve the yield and quality even further.

What innovative practices do you use, and how important is this innovation to your farming today?

Technology is the key. We use GPS, remote sensing, satellite navigation, soil moisture probes, humidity sensors, weather stations, soil scanners and more. We also use drones and our tractor to

collect data. The whole interactive cycle we used can be found [here on our website](#). Everything is optimised in this way and we save water and fertiliser and use less crop protection products. We also save a lot of fuel.



I feel that sharing information is also essential. It is how I learned about precision farming, I couldn't have done it without other people and I still learn new techniques myself in this way. All of the data collected on our farm goes into a cloud with data from other farmers so that it can be cross-compared. We have set up a [website](#) which explains all of the processes we use, it is linked to social media so people can hold discussions on these. We also have a [YouTube channel](#) where we post many videos about how

we run our farm, how the technology we use works and about precision farming in general. They have proven to be very popular. In the low season we have two or three visits per week from people wanting to have a look at our farm, we believe this is very important.

How did you experience the EIP-AGRI Focus Group on Precision Farming – what did you think about the process, and the results?

It was a very interesting process, and useful to see things from the research perspective and I went away with a lot of useful ideas. I was the only full-time farmer so I think I brought field experience to the group. In fact the group highlighted ambassador farms, which welcome visitors like mine, as one of its main recommendations. It's a good way of sharing knowledge and overcoming some of the barriers which can restrict precision farming.

I heard about the Focus Group through one of my advisers, so I would say that this is a good way of spreading the word about EIP-AGRI and other Focus Groups to the field.

See website

www.vandenborneaardappelen.com

See video:

<https://www.youtube.com/watch?v=nIS8nVaI698>

Photos:

www.vandenborneaardappelen.com