

## **Nicole Bartelds**

### **Title: Decision support in Agriculture**

Agriculture is more data intense than ever before. Satellites are circling the earth bringing new observations every day. Sensors are monitoring our crops in the field.

But how can an arable farmer benefit from all this. How can he create knowledge he can use on his farm from all this data?

Unlike in horticulture in arable farming there is not a controlled environment. The farmer has to deal with the changes in the weather, spatial variation of the soil and the threats of plant diseases on a weekly basis.

Instead of trying to create a controlled environment (which will never succeed) the farmer needs information to quickly make the right decision in this ever changing environment.

Which kind of data does the farmer need? How can we provide him with the options to react and the consequences of each reaction?

### **Bio**

Nicole Bartelds is a farmer's wife who is educated in Soil Science at Wageningen University (NL). She studied Soil Quality from the chemical and biological perspective and also did a minor in Earth Observation. Her husband and 2 nephews operate a 400ha farm in the province of Drenthe (NL).

Nicole has 25 years of experience in development and use of geographic information systems (GIS). As a consultant she advised local governments (provinces, municipalities and waterboards) in the deployment of GIS and the use of GIS data in complex business processes.

As a farmer's wife and soil scientist Nicole is very interested to make new technology for satellite imagery, sensor data and other data sources available in the daily use for decision making on the farm. She has been contributing to projects in precision farming since 2011.

In 2013 Nicole co-founded LimeTri, a company specialized in software development for precision agriculture and logistics. LimeTri is the main contributor to the AgroSense open source project for decision making in precision agriculture . (<https://agrosense.limetri.eu>)

Recently Nicole founded the company NB Advisory Services for more specific data services and the deployment of AgroSense at farms and other agricultural companies e.g. seed companies.