

# **Precision Agriculture / Precision Farming | The Future of Farming**

With precision agriculture farmers need to know precisely what inputs are needed, where, in what amounts and when.

Precision agriculture requires a lot of information from different sources and in different parts of the field on things like soil nutrients, the presence of pests and weeds, the level of greenness of the plants, inputs applied and the weather forecast. Once collected this information needs to be analyzed to produce agronomic recommendations to be delivered on time to the farmers.

## **Disadvantages of precision agriculture**

Farmers need to have all the necessary inputs at hand and be able to translate the recommendations into actions in the field.

Precision agriculture is however economically infeasible for medium and small scale farmers. The farmers lack the scale to afford the sophisticated machinery, the knowledge to operate the non automatic aspects of the machine and the resources to hire a person who knows how to do it.

Sometimes many necessary compliments are not readily available or there is no connection to the internet or there are not sufficient skilled workers

## **Solutions developed**

Easy to operate economic sensors to measure soil humidity, salinity and nutrient content. Portable networks to transmit the data collected by field sensors to a central location and

economic ways to connect to the internet.

Remote sensing through the use of satellite imaging to access the health status of the plants in an economic way without requiring producers to know how to operate a device or interpret complex data.