

Variable tillage with the Topsoil Mapper in practice

USER STORY

Focus: variable tillage in real time

Precision farming is playing an increasingly important role in agriculture. Seeds and fertilizers should be very efficiently to conserve resources and the environment. To that end it is also necessary to have very precise information about the condition of the soils.

Variable depth tillage is a big topic in this context. With the Topsoil Mapper VDT is now sensor-controlled and in real time. By mounting the sensor in front of the towing vehicle, the collected data can be forwarded in real time to the tillage machine and the soil processing can be adapted to the prevailing conditions. This saves time - since two processes can be carried out in one, the soil is spared through the adapted processing and last but not least, energy resources are saved through the adaptation.



Today we would like to introduce you to **Koch Gbr** - a young company from Issendorf near Hamburg. Father Jürgen Koch has been involved in innovative agriculture for years. Together with his sons Jakob and Johannes, he now provides this know-how in soil cultivation and fertilization in a wide range of services to his customers. A modern machine park for subsoiling and vertical tillage is available to improve the soil structure. Further fields of work are the fertilization with GPS coupled fertilizer spreader as well as plant protection with a modern field sprayer.

Jakob Koch (JK): *„Precision farming is indispensable for us because we want to offer our customers innovative cropping solutions. Here we see considerable yield opportunities and, especially for fertilizers and pesticides, enormous potential savings. **For this we need the latest technology to be able to participate as quickly as possible in the progress. This increases the efficiency in the company and among the customers and thus improves the result.**“*





JK: „Especially the extreme weather conditions caused many problems in 2017. But a continuous change in politics is constantly calling for new solutions, especially the new Fertilizer Ordinance. This raises many challenges that will continue to accompany us in 2018, especially with regard to new fertilizer technologies for improving spreading and distribution accuracy of

fertilizers and pesticides. The restoration of soil structures and the associated availability of water and nutrients for subsequent crops is also a major topic. Here, with the help of the Topsoil Mapper, a wealth of data can be collected, which can be perfectly used in documentation as well as in forecasting. Furthermore, the possibility of real-time application makes the daily work significantly easier and processes can be carried out much more efficiently and cost-effectively “

JK: „Our aim is to support our customers as much as possible in optimizing their yields and to sustainably cultivate the soil. Breaking up compaction horizons, promoting soil life, promoting capillarity / infiltration - these are just a few key words. Our resources - as service providers - should be used as efficiently as possible. **What was conventionally only possible with penetrometers and spades is simpler and more**

accurate with modern sensor technology such as the TSM. Both the measurement and the recording of varying densification horizons and the adaptation of soil tillage measures in real time provide real added values.“



Fieldday Koch Gbr, Issendorf April 2017

Video: https://www.youtube.com/watch?time_continue=18&v=ESiidG9oTRQ

Tractor: John Deere 8R

Cultivator: 4,5m Great Plains Flatliner

Hydraulic control: AutoDepth