

PRESS RELEASE

September 2019

HillControl: More precision when spreading fertiliser on slopes, on crests and in dips!

The RAUCH HillControl system optimises the fertiliser distribution from AXIS twin disc fertiliser spreaders on slopes and variable field topologies such as crests and dips. HillControl also ensures constant lateral distribution when the inclination of the machine to the ground changes continuously. HillControl allows the fertiliser normally unevenly distributed in sloping terrain to contribute to optimal nutrition of the plants. The spreading pattern optimisation provided by HillControl when driving over crests and through valleys also saves up to 3% of the fertiliser used. This optimised distribution also improves the fertiliser efficiency by a further 3% on lateral and longitudinal slopes.



Fig.1: Spreading pattern optimisation via HillControl

HillControl is based on algorithms that calculate separate control information for each spreading disc, based on the flight characteristics of the fertiliser, the working width and the inclination of the slope. HillControl automatically optimises the machine settings for drop point, application rate and disc speed.

The positions and position changes of the spreading discs are measured by inclination and yaw-rate sensors. HillControl communicates with the new BOSCH NEVONEX platform via the Internet. The complex HillControl algorithms are transferred to the AXIS fertiliser spreader over the CANBUS via the extremely fast API interface.

The HillControl automatic control system uses the super-fast actuators already present in the AXIS twin disc spreader for controlling the application rate and drop point. Full integration into the existing controller allows easily usable functions for the user and requires no special attention during operation. The NEVONEX platform allows the user

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to download and use updated and improved calculation algorithms for the system at any time.

The effects of the field topology and slope characteristics on the distribution characteristics, e.g. when driving through a trough or over a crest, are not taken into account in all current spreading systems. In contrast to HillControl, even radar-supported fertiliser spreading control systems (AMAZONE Argus, RAUCH AXMAT) cannot measure the ballistic flight of the fertiliser granulate and the terrain characteristics.

HillControl is the first system offering precise fertiliser distribution when driving laterally and longitudinally on slopes, in valleys and over crests. The plants receive optimum nutrition, over-fertilisation is avoided and the fertiliser efficiency is greatly improved on terrain with slopes and complex topology.

A family company, RAUCH was founded in 1921 and today is an internationally active and innovative leading manufacturer of agricultural and municipal services technology. The headquarters of the company are located in Sinzheim, Baden-Baden. RAUCH develops and builds high-quality machines for fertiliser spreading and spreading technology for municipal winter services. In addition, RAUCH is an original equipment manufacturer of sowing technology components. In the 2018 financial year, a turnover of 75 million Euros was achieved with 370 employees. Around 65 percent of the products manufactured were exported.

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