

PRESS RELEASE

September 2019

Agricultural satellites, camera drones and sensors now provide detailed information on the biomass, soil condition and nutrient requirements of small field sections. In contrast to the AERO 30.2 or AERO GT 60.1 with MultiRate, the widely used normal twin disc fertiliser spreaders, with their large spreading and overlapping area to the rear and side, can only implement the application requirements for small areas over the entire working width using a very coarse grid.

Pneumatic fertiliser spreaders with MultiRate Control ideally implement urgently needed yield improvements, using less fertiliser and providing maximum climate, soil and waterway protection. MultiRate Control allows the optimisation of plant nutrition over small areas, resulting in a significant improvement in fertiliser efficiency with a simultaneous reduction in the environmental impact of over-fertilising.

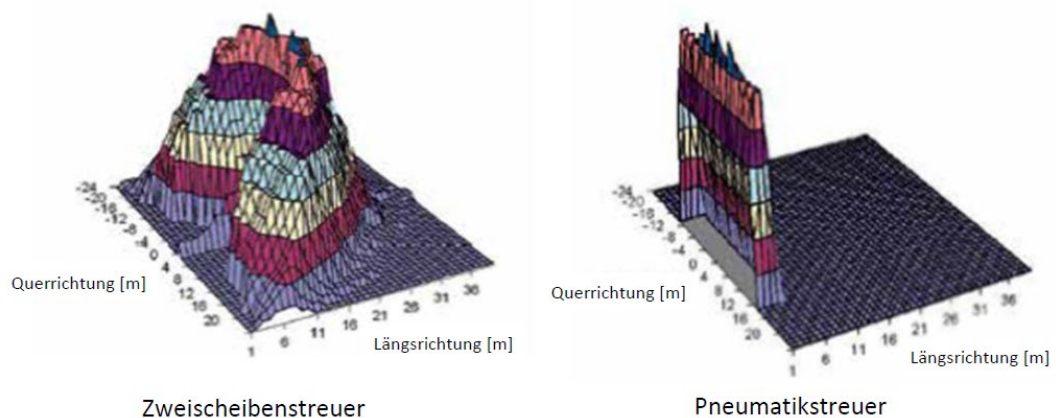


Fig.2: Comparison of the spatial extension of the spreading pattern of the twin disc spreader in comparison to the pneumatic spreader with identical working width (Source: Kongskilde)

MultiRate with application maps:

In conjunction with the TaskController of the CCI1200 ISOBUS terminal, application maps loaded into the terminal can be used for controlling the 30 individual cam wheel sets of the MultiRate metering system accurately at high-resolution, even for the most complex field contours and application zones.

The improvements through exact tracking of the application map result in fertiliser savings of up to 10% with simultaneous optimisation of the plant nutrition in high-yield areas.

MultiRate when spreading in curves:

When spreading in curves, the different relative speeds of the individual outlet manifolds on the boom in the same time period result in different arcs being travelled for each outlet. Depending on the frequency of curves, the MultiRate system can save around 2 - 4% of the fertiliser in the inner region of the curves with a simultaneous yield optimisation through adjustment of the fertiliser quantity in the outer spreading region of the curves.

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Optimum biotope protection:

Biotopes in the field, such as kettle pools, ponds, shoulders and streams are protected against the spreading of fertiliser by selectively switching off individual outlets - even when these areas lie in the middle of the boom.

MultiRate with SectionControl:

Selectively switching individual cam wheel sets off allows precise wedge-shaped spreading at very small grid sizes of 1.0 – 1.2 m. The partial section switching with 30 sections saves a significant amount of fertiliser and avoids yield losses through double spreading.

Optimum distribution up to the field border

The good fertiliser distribution all the way to the border provided by the pneumatic spreader can be further optimised via application rate adjustments to the outermost outlet manifold and by using a border spreading guide plate.

Increased dynamics of the electrical metering drive

Compared to the previously used hydraulic drives, the new 48 V electrical drives offer a significantly faster dynamic response to speed changes. The electrical drive reacts 6-times faster than the hydraulic drive. This allows on-the-dot distribution of the fertiliser and saves a significant amount of fertiliser.

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.

Contact:

Jens Hille - Key Account Manager
Ph.: 07221/985-190 - Email: j.hille@rauch.de