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IMAGE SOURCE: Väderstad

New electronics optimizes the accuracy of the Tempo planter

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By upgrading the electronics of the planter, new features to ensure accuracy in the field are enabled. The new features include automatic seed singulation, active hydraulic row unit downforce as well as curve compensation.

Since the launch 10 years ago, the high-speed precision planter **Väderstad** Tempo has gained a leading position on the European planter market. In the summer 2024, the Tempo row unit will be upgraded with Väderstads own-developed new electronic system WSX with brushless motors and improved cabling performance. But it is not only the WSX itself that will optimize the planting accuracy further – this will come from the new features that it enables.

The new WSX system enables us to integrate three new features to optimize the accuracy of the Tempo planter even further, says Oskar Karlsson, Director Planter Product Management, at Väderstad.

Firstly, automatic seed singulation is introduced to always ensure a precise seed singulation in the seed meter, without the need of manual setting.

With sensors in each row unit, the seed singulation is continuously monitored and automatically adjusted to optimum setting. The automatic singulation saves time and increases the productivity in the field. A feature that especially will be appreciated by farmers and contractors regularly changing crops, says Oskar Karlsson.



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Secondly, active hydraulic row unit downforce is introduced to always ensure an exact planting depth, independent of the soil condition. With the task to always keep the set row unit downforce, the system will add or release row unit pressure to the ground depending on the soil conditions. If for example going over a lighter field area, the pressure will decrease and if entering an area with a harder soil condition the pressure will increase. To ensure quick response times, the system works with hydraulics. The planter can either be equipped with active hydraulic downforce with one feedback and control for the full machine width, or with individual active hydraulic downforce for each row unit.

The active hydraulic downforce allows the driver to set an optimal row unit downforce, which is kept automatically. This ensures the planting depth precision despite changing soil conditions, as an effect of variations in soil type or soil compaction, says Oskar Karlsson, and continues:

Additionally, this functionality can be utilized to improve the tramlining, preparing un-planted tracks for the following sprayer. Equipped with individual active hydraulic downforce for each row unit, the planter is also able to utilize the system to relieve pressure and lift individual row units when making the

tramlines. When doing so, the active hydraulic downforce works together with the dynamic tramlining system of the planter. This means that the tramlines will be clearly visible for the sprayer operator, also before the crop has emerged.

The third new feature is the introduction of curve compensation, ensuring a consistent metering output over the entire planter width when turning. This means that the inner row units in the turn will temporarily decrease their metering rate, while the outer row units will increase it.

Gyro sensors identifies when the machine is turning and adjusts the metering output of each row unit to always ensure a consistent rate over the full planter width, says Oskar Karlsson.

The new features and electronic WSX system for Tempo L 8-32, Tempo V 6-12 and Tempo F 6-8 will premiere at the international tradeshow Agritechnica in November 2023. A limited series of machines will be out in the field for the spring of 2024, with serial production starting in the summer of 2024.

Source: Väderstad