New air seeder gives greater accuracy, less costs

Adding to an already extensive line-up of air-seeding tools, John Deere now offers hydraulic-tyne technology on the new 1870 Air Hoe Drills.

"Growers told us they wanted an air-seeding tool with very accurate seed and fertiliser placement," says Royce Bell, Tactical Segment Manager, John Deere Limited.

"We invested in new technology – the Conserva Pak hydraulic shank opener – which does an exceptional job in placing seed and fertiliser at a more accurate and consistent depth. The result is more accurate placement of fertiliser, reduced seed, fertiliser and input costs, and consistent, uniform emergence throughout the field for higher yields."

The 1870 Air Hoe Drill is available in two widths, the three-section 12 m (40-ft) model, and the five-section 17 m (56-ft) model. Transport width for both models is 6 m (20-ft.). A rigid, three-rank frame provides strength and support for even and consistent depth and yet allows the openers to follow contours and flex with field conditions to deliver the seed at the prescribed depth.

Independent opener control

"The real story on the new seeders is the independently controlled hydraulic shank opener, Conserva Pak, which enables the placement of nitrogen, phosphorous, potassium, and sulphur-based fertilisers up to 102 mm (4 inches) away from the seed," explains Royce. "This positive vertical and horizontal separation of fertiliser and seed eliminates seeding damage caused by some fertiliser forms."

The new Conserva Pak shanks use simple and adjustable hydraulic accumulator force for accurate fertiliser placement down to 152 mm (6 inches) deep, even in variable field conditions. There is low soil and residue disturbance with a very positive closing system by the seed opener to ensure good seed to soil contact.

"Studies have also shown that direct seeding with the Conserva Pak system reduces wind and water erosion while building organic matter," says Royce. "Being able to seed directly into stubble and residue leads to improved storage of moisture."

This system helps build organic matter and sequesters CO2. This increases available nitrogen allowing it to be mineralised into a form available to the crop, which means less run-off or leaching.

Consistent seed depth

Seed depth consistency is also improved because the hydraulic accumulators permit separate control of down force of the fertiliser shank and the press wheel–seed opener. The Conserva Pak opener achieves consistent depth with an even amount of soil placed over the seed in a single or paired-row setting – even in variable seeding conditions.

"Because the machine must handle more crop stubble while seeding, we've designed plenty of under-rank clearance – 572 mm (22.5 inches) and plenty of spacing between openers, 914 mm (36 inches)," Royce says. "The design of the hydraulic shank also contributes to residue flow by allowing plenty of vertical clearance."

Another feature is that the adjustable openers, with independent downforce, can be set between 45 to 363 kg with a trip clearance to meet seeding conditions. The adjustable breakout force is ideal for rocky conditions.

"The air seeding packages are fully compatible with all Green Star 2 precision guidance and map-based prescription seeding, fertilising, and field documentation systems," adds Royce. ■

The new Conserva Pak system on the 1870 air seeders allows independent control of shank openers leading to more accurate seed placement. There is also improved under-rank clearance and better stubble flow.

LEFT: The 1870 comes in 12 and 17 metre widths. Both widths fold to six metres for road transport.