Agritechnica 2017: "Green Future – Smart Technology"

WRITING on the AGFAX website, Jim Patrico Progressive Farmer Senior Editor acknowledges that Hannover Germany might seem a long way to go to get a glimpse into the future of farm equipment – but he believes the Agritechnica trade show is worth the trip.

Billed as the largest farm show in the world, Agritechnica covers almost 40 hectares acres and draws about 400,000 visitors. The theme this year was "Green Future – Smart Technology."

Manufacturers from all over the world use Agritechnica as a launch pad for new products or concepts that one day might work the fields. Included in this year's line-up were:

Robot planter swarms

This is a concept that would be familiar to our readers – swarms of metre long robots planting crops – or (in the case of Queensland's SwarmFarm Robotics which we featured 12 months ago in this magazine) spraying herbicides and fertiliser.

Fendt has spent the last two years refining the planting idea and says a planter robot called Xaver will be in production and for sale by 2019. The project originated with the name Mobile Agricultural Robot Swarms (MARS).

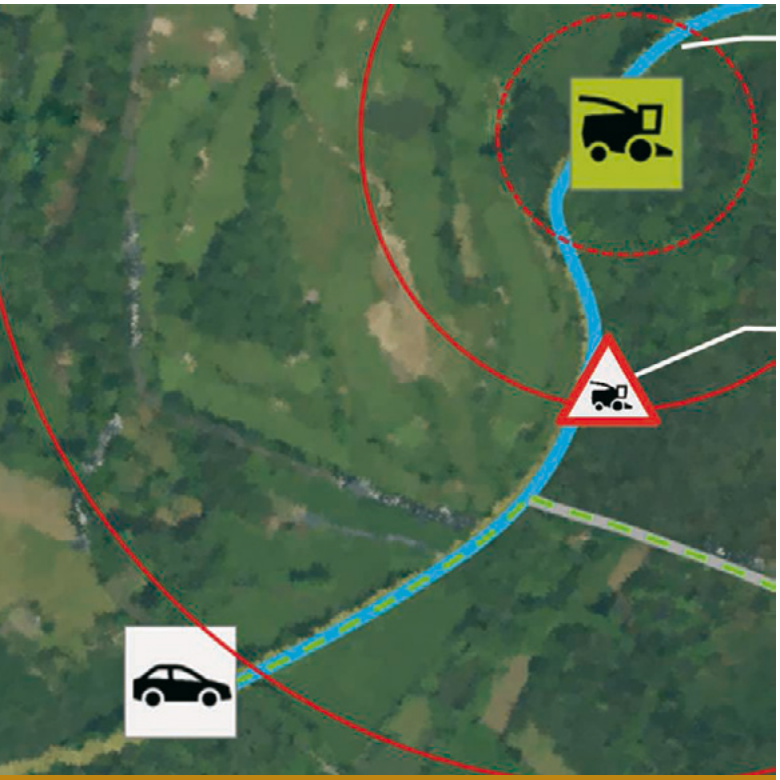
The battery-powered robot can carry about 25,000 corn seeds and will hold a charge for up to three working hours. Then it will head to the recharge station, fill with corn, recharge and head

Fendt's new Xaver system uses small robot units operating in swarms and a cloud solution to plan, monitor and accurately document the precise planting of corn.

Fendt's e100 Vario, an all-electric compact tractor with 50 kW power output and winner of the DLG silver medal at Agritechnica.

back to work. A swarm of 10 Xavers can plant a 40 hectare field in 40 hours, working 24/7 with no human supervision.

In its current form, the planter concept may be better suited to European farmers. At the stated planting rate for a 10 unit swarm, it would take six weeks to plant 1,000 hectares. And the Xaver is too light to cut a furrow in unworked ground so pre-planting tillage is required.



The location of an agricultural machine is transmitted from the telemetry data to the navigation systems of cars and trucks in 'real time'.

Electric tractor

Fendt also displayed the e100 Vario at Agritechnica. This 67 hp, totally electric tractor is aimed at intensive small operations such as vineyards and orchards. It will have other applications in areas where it's important to have reduced noise and no CO_2 emissions such as indoors in greenhouses.

The e100 has a working charge of five hours and has two options for recharging its 650 V high-capacity lithium-ion battery. A direct voltage supercharger takes 1 hour; a standard electrical hook-up takes five hours.

The tractor comes with PTO connections for hydraulic implements and 700-volt outlets for electric implements.

The e100 will undergo field trials beginning next year. Goal for production and sales is 2020 or 2021.

Traffic alert

Transporting and driving large farm equipment can lead to accidents. CLAAS has developed a GPS-based system to cut the odds a car and farm machinery will collide on the highway. Its Telematics Large Vehicle Alert System works in conjunction with automotive guidance systems. The tractor/harvester/sprayer on the road sends a signal that interfaces with a car's guidance system. An alert pops up on the car's GPS screen warning that a large vehicle is approaching. Currently, CLAAS is partnering with BMW and also is talking with other automotive manufacturers and Google.

Drawn from Farm Equipment Future by Jim Patrico, Progressive Farmer Senior Editor – posted November 21, 2017 – www.agfax.com ■