

Alternative Power

There was no shortage of engines using battery power, hydrogen, methanol, ethanol, hybrid, and HVO (hydrotreated vegetable oil) on display from many large companies at Agritechnica. One of the topics of conversation was the infrastructure needed to make these alternative fuel engines work on a large scale.



Kohler unveiled its KDH hydrogen engine at Agritechnica.



Agco had several different options on display such as their Core50 eHydrogen engine, methanol fuel cell, and a battery pack used in the Fendt eVario 100 tractor.

Cummins and Deutz both had Hydrogen engines on display.

Precision Sprayer Comes To North America

By Bruce Derksen, Contributing Editor

Swiss AgTech and AI software company Ecorobotix is moving its innovative ARA Ultra High Precision (UHP) Sprayer and Plant-by-Plant AI-based software solution from Europe to North America.

The ARA is 18 ft. wide, with three separate 6-ft. "boxes." The outer two boxes fold hydraulically for road transport. The underside of the compartments contains 156 nozzles, which can be adjusted in height from 6 to 22 in. Solenoid valves open and close the nozzles almost instantaneously, acting on signals from high-resolution cameras focused on the plants.

Plant-by-plant software is equipped with several algorithms for various spraying methods and crops. Treatment types like volunteer potatoes in sugar beet fields can be selected from in-cab tablets, including the safety zone around the crop.

"As the ARA is towed in the sugar beet field, the camera system is rapidly collecting images," says Abbey Flury, Press and Content Manager. "It's detecting the volunteer pota-

toes and sending the information extremely quickly to the UHP spray bar, which sprays at a precision of 2.4 by 2.4 in. on designated spots. This entire process happens in under 250 milliseconds."

The ARA can spray up to 10 acres per hour traveling at 4.7 mph., even at night. It provides several different treatment methods, including herbicides, pesticides, growth treatments, and liquid fertilizers.

Flury says established ARA European trials show a reduction in chemical use over conventional sprayers of up to 95 percent.

"Our biggest advantage over our competitors is our spray footprint of 2.4 by 2.4 in.," Flury says. "It's the most precise sprayer on the market, and combined with chemical reductions, farmers can save a lot of money."

Ecorobotix has recently begun selling the ARA to vegetable farmers in Canada and has placed a few machines in California.

All smart sprayers and software technologies are designed and manufactured in Switzerland.



Farmall 75C claims a 4-hr. run time before charging is needed. Three recharging options are available.

All-Electric Farmall Offers Autonomous Capabilities

In 2024, Case IH will offer customers their first fully electric tractor, designed with impressive new autonomous features.

The versatile Farmall Utility 75C features a 74-hp. continuous duty, zero emission motor, which provides 65 pto hp. It offers 4-WD and a fully electric drivetrain and comes equipped with a 2-speed pto, 3-pt. hitch, drawbar, and multiple rear remotes.

A fully integrated battery delivers 110-kWh maximum energy storage capacity enabling the electric motor to run at 94 percent efficiency.

A 12 by 12 upgraded transmission sports an electronic clutch-less power shuttle to improve directional changes.

"The drivability is fantastic," says Jeff Akel, Case IH Global Marketer. "There's instant acceleration and torque throughout the entire speed range. It's also noticeably different than a diesel tractor being extremely quiet."

The Farmall 75C claims a 4-hr. run time before charging is needed. Three recharging options are available, including standard AC, Economy Fast DC, which uses the existing

electric grid, and a Premium Fast DC charger, which can recharge from 10 to 80 percent in under an hour.

A portable generator capability is also available, delivering power through 110 and 220-volt electrical outlets.

Unique features have been added to the tractor, including:

- Row Follow: Onboard cameras use vision technology to precisely follow field rows.
- Follow-Me Mode: The tractor drives or reverses following the operator outside the cab.
- Safe Mode: Alert and shut down feature activates when a person steps into the tractor's working environment.
- Invisible Bucket: Console screen displays a clear view of obstacles in front of the bucket for safe operation in tight spaces.

The Farmall 75C will be available early in 2024.

Interested customers are encouraged to visit the Case IH website for further details.

Contact: FARM SHOW Followup, Case IH, 2701 Oakes Rd., Sturtevant, Wis. 53177 (ph 877-422-7344; www.caseih.com).



"Our biggest advantage over our competitors is our spray footprint of 2.4 by 2.4 in. It's the most precise sprayer on the market, and combined with chemical reductions, farmers can save a lot of money," says Flury.

Flury says it's less expensive than other smart systems on the market today.

Contact: FARM SHOW Followup, Ecorobotix SA, Y-Parc, Rue Galilee 6, 1400

Yverdon-les-Bains, Switzerland (ph +41 24 524 41 23; sales.northamerica@ecorobotix.com; www.ecorobotix.com).