Dutch-Made "Wingssprayer" Reduces Chemical Use, Drift

Reduced chemical use and less spray drift make the Dutch-produced Wingssprayer an economically and environmentally- friendly piece of equipment. Plus its retrofit models allow producers to attach it to sprayers they already own to keep the cost down.

It's not in the U.S. yet, says inventor Harrie Hoeben. But he hopes to connect with a sprayer company and has already begun demonstrations in Canada.

"It's different because it works with very fine drops," Hoeben says of his design, explaining that the drops are 10 times smaller so they cover 10 times more area. "It has a windshield so the wind can't get to the fine droplets."

The "wings" flow over the top of the crop, opening up the plants, placing plants just inches below the sprayer nozzles. With increased speed the wing acts like a spoiler and improves spray penetration into the plants instead of ending up as spray drift.

"Some farmers used 40 percent less chemicals, but the average chemical reduction is 15 to 30 percent," Hoeben says. A video on his website provides visual evidence that spray drift is nearly eliminated when compared to conventional sprayers.

The son of an apple orchard grower, Hoeben has been spraying since he was 14. He contracted as a professional sprayer and came up with the Wingssprayer to help meet his government's focus on reducing spray drift. He worked on the system for seven years and introduced it in 2010 to farmers in several European countries. Testing on thousands of acres covered a variety of crops including grains, potatoes and up to 9-ft. tall corn. Special trials indicated that it didn't spread diseases, despite the fact that the Wingssprayer has contact with plants.

There are 3 patented models available. The Single Wing is ideal for small farms and can be pulled up to 11mph. The Double Wing works well for large farms and travels up to 22 mph. The vertical Wing is designed for orchards and vineyards.

Hoeben welcomes inquiries from U.S./ Canadian sprayer manufacturers to set up demonstrations to give his equipment a chance to prove itself to farmers.

Wingssprayer works with very fine droplets that are protected by a windshield. It results in reduced chemical use and less spray drift.

"The Wingssprayer can bring more profit for farmers, healthy crops, healthier people and not harm the environment (with overspray)," Hoeben says. In the Netherlands the sprayer meets government regulations to use within 20 in. of ditches, rivers and lakes.

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Retrofit models can be attached to existing sprayers to keep the cost down.

Boom LEDs Light Up Night Spraying

You can visually check each spray nozzle when spraying at night with the new Blue LED sprayer boom lights from Comatra. The Belgian company was first featured in FARM SHOW 2 years ago when it introduced in-cab tire monitors (Vol. 36, No. 6).

"There are lots of benefits from spraying at night including less wind, less drift, less plant stress and slower evaporation," suggests Luc Pirard, Comatra. "However, spraying at night requires you to trust your electronic monitors or hard to see spray patterns with conventional lights. Our Blue LEDs make it easy to monitor nozzles and spray patterns from the cab, night or day."

While lit booms are not new, the unique blue spectrum LED's offered by Comatra put the spray patterns in a literally different light. Only 2 LED's are necessary to illuminate spray patterns on a 120-ft. boom. The Comatra Blue LED kits are mounted below the boom mast. When turned on, the high intensity lights shine through spray patterns from one end of the boom to the other. A single light can illuminate spray patterns on up to a 59-ft. boom.

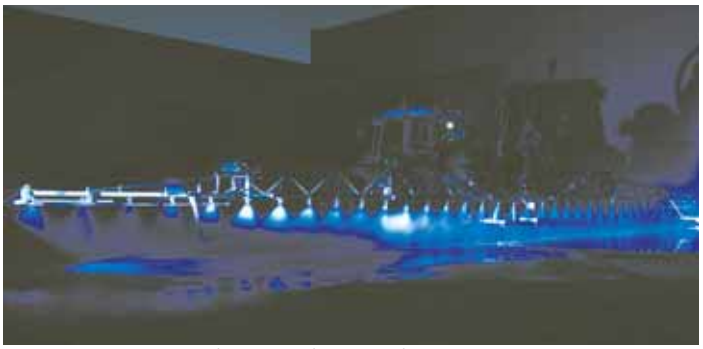
"LED's with a blue cover simply do not provide sufficient contrast, nor does a blue light by itself," explains Pirard. "The Comatra CMTX-V10 Blue LED lights provide a higher contrast than other lighting systems."

The Comatra kits come with everything needed to attach to sprayers and are priced at only $487 (including shipping) for a 2-light kit. Pirard suggests it will provide ample light for a 110-ft. boom with up to 112 nozzles. A comparable conventional light kit requires individual lights focused on each of the 112 nozzles and is priced at $2,446.

"We can illuminate a 186-ft. boom with a set of 4 lights," says Pirard. "That kit is priced at $916, including shipping."

Pirard says his kits are easy to install and maintain. "Conventional alternatives suggest an installation time of 8 to 10 hrs. on a 120-ft. boom," he says. "Our 2-light kit can be completely installed in 2 to 3 hrs. Cleaning our 2 lights will certainly take less time than the 64 lights commonly used on a 106-ft. boom."

Pirard does not yet have a North American distributor and is actively seeking dealers. All prices listed are U.S. dollars.



Blue LED sprayer boom lights make it easy to visually check nozzles and spray patterns from the cab at night.

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Only 2 LED lights are needed to illuminate a 120-ft. boom.

Grazing Hogs Rooted Out Buckthorn Problem

Thanks to six rooting hogs, Nancy Lunzer reclaimed a woodlot that had been overtaken by buckthorn. The invasive species had choked out the native plants on about 2 acres of her Ogilvie, Minn., farm. The healthy 1 to 2-in. dia. plants were too big to pull and would grow back if cut.

Instead of opting for the costly herbicide option, Lunzer decided to try Berkshire and Berkshire/Duroc hogs known for being good foragers.

"I fenced off a small area (about 1/4 acre) and 6 hogs took it down to the dirt; they go like gangbusters," Lunzer says.

Once an area was totally dug up, she moved the fence and the hogs to another area. It took one to three weeks per area. The only areas where she needed to pull buckthorn was the "bathroom" area, where the hogs wouldn't root.

She had been told that rooting wouldn't work because buckthorn berries - often eaten by birds that spread the seed - would reseed in the worked up ground. She speculates the hogs must have eaten the berries too, because reseeding wasn't a big problem.

After the hogs worked up the dirt 6 to 8 in. deep, Lunzer broadcast shade tolerant grasses including fescue, Kentucky bluegrass and orchard grass. After the grass was established she rotationally grazed it with hair sheep in the fall to keep new buckthorn in check by stripping the seedlings so they dry out and die.

Lunzer received grants from the USDA Sustainable Agriculture Research and Education program and used part of it to purchase 2,640 ft. of woven wire fencing for the perimeter and 600 ft. of PigQuik Electro-web for the portable fence. She highly recommends it.

"Fencing was easy compared to pulling up buckthorn," she says, and it also works for sheep.

Generally, grazing woods is not recommended, she notes. But the buckthorn infested areas were useless. Now sugar maple and basswood seedlings are growing to return the land to native woods - her ultimate goal. There is a stark difference between her property and her neighbor's buckthorn infested property, she adds.

Nancy Lunzer used hogs to reclaim a woodlot that had been overtaken by buckthorn.

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