



Manure tanker modification wins innovation award

An in-crop manure and cover crop tanker innovation has won Jake Kraayenbrink the 2023 Don Hill Legacy Award from the Ontario Soil and Crop Improvement Association (OSCIA).

The award is presented annually to recognize someone who has applied on-farm innovation and ingenuity to effectively address an identified environmental risk associated with soil, water, air or biodiversity on their farm.

Kraayenbrink is from the Drayton area and is also the inventor and manufacturer of the innovative AgriBrink tire deflation system that reduces the risk of soil compaction from heavy equipment.

“Soil health is the driver,” says Kraayenbrink of his interest in innovation.

Most hog farmers grow quite a bit of corn, which means they apply manure in late fall or early spring and incorporate it, and there is no time to plant a cover crop after fall corn harvest. To address this challenge, Kraayenbrink modified a Nuhn 5000-gallon manure tanker to inject manure as a side-dress into standing corn at the 4-8 leaf stage while also broadcasting cover crop seed at the same time.

As part of the modification, he added five injectors spaced 30 inches apart, along with a



Photos provided by Jake and Betty Kraayenbrink

dispenser to provide a more consistent flow of manure to the injectors. The APV cover crop seeding unit was installed in 2015. The S-tines were replaced with coulters that can be set at 15-inch spacing to incorporate cover crops while reducing soil movement.

According to Kraayenbrink, both the injectors and coulters and the cover crop unit have been supported by cost-share delivered through OSCIA. The modified tanker has been used in a field trial coordinated by Heartland Soil and Crop Improvement Association, as well as for custom work on other farms.

Applying manure in-crop ensures the crop gets nitrogen when it needs it, and injection avoids run-off and minimizes soil disturbance. The cover crops improve soil health by adding another crop to the rotation and ensuring year-round ground cover.

“It’s an honour for us to receive this award. I enjoy fields and I enjoy crops; it’s amazing how the soils are created and all the microorganisms in there,” Kraayenbrink says. “To receive this is really quite a big deal.”

Kraayenbrink is no stranger to innovation, having spent almost 15 years developing the AgriBrink

tire deflation system to address compaction issues caused by heavy equipment on fields. The in-crop manure and cover crop tanker that won Kraayenbrink the Don Hill Award also features this technology.

AgriBrink started on his Drayton-area hog farm with support from Ontario Pork and the Ontario Ministry of Agriculture, Food & Rural Affairs, and after years of research and determination to commercialize the innovation, AgriBrink systems are today used by farmers in Canada, Europe, the UK, and New Zealand. Although manufacturing of the system continues in Drayton, the Kraayenbrink family has recently re-located to Iowa to expand operations in the United States.

The Don Hill Award, which comes with a \$1,000 cash prize, was established in 2019 in memory of past OSCIA president Don Hill. Hill was passionate about the Environmental Farm Plan and finding simple yet creative solutions to environmental challenges faced on the farm.

Do you have an ingenious farm-built solution to an environmental challenge? The submission deadline for the next Don Hill Legacy Award is December 1, 2023. Visit www.ontariosoilcrop.org to learn more.



Jake and Betty Kraayenbrink

ONTARIO SOIL AND CROP IMPROVEMENT ASSOCIATION

Mission: Facilitate responsible economic management of soil, water, air and crops through development and communication of innovative farming practices

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OSCIA is a not-for-profit grassroots farm organization founded in 1939, with local member groups across more than 50 counties and districts. We are farmers actively seeking, testing and adopting optimal farm production and stewardship practices. The organization has also been deeply engaged in the delivery of both educational and cost-share programs in the broader farm community for more than 30-years.