Spray can be delivered via a 10-ft. hose with a wand or the spray hood. A quick connect lets Penick detach the hose and direct the flow to the spray hood.



## Hooded Lawn Sprayer Turns On A Dime

Tyrone Penick doesn't worry about herbicide drift with his zero-turn sprayer. His frontmounted broadcast hood sends spray where it's needed. A platform Penick mounted over the mower deck holds a spray tank and pump.

"The mower is a 932 Grasshopper," says Penick. "It was the strongest they made when I bought it and has a 52-in. mower deck. I removed the wheels from a tow-behind sprayer and set it on the platform."

He fabricated the platform with 1-in. sq. steel tubing. Legs on the front and back of the platform rest on the mower deck. Penick built a bracket to attach the platform to the heavyduty cross pipe the mower deck is hinged to.

"The platform is handy for hauling things in addition to the sprayer tank," says Penick. "I have seats I can attach for the grandkids to ride on."

A rear-mount lawn vacuum eliminated that position as an option. However, Penick likes having the deck in front of him. It ensures ready access to the tank for refills. Having the spray tank in front of him also makes it easy to check spray solution levels.

A 12-volt plug-in on the Grasshopper made it easy to connect the spray pump. Penick mounted an on/off switch for the sprayer on the mower handlebar.

"It shuts off the spray solution, so nothing is wasted," says Penick.

Spray can be delivered via a 10-ft. hose with a wand or the spray hood. A quick connect lets Penick detach the hose and direct the flow to the spray hood.

"I drew up plans for what I wanted," says Penick. "The hood is about 20 in. high and

about 60 in. wide. A friend at a metal shop put a 90-degree curve in the top rear. The front shield is hinged to the hood so it can fold back for access to the spray tips."

Penick made support arms for the hood with two lengths of 1-in. conduit. He reinforced them by clamping lengths of rebar to them. Brackets made from steel strap are welded to a length of angle iron that is screwed to the back side of the hood. The brackets bolt and clamp to the ends of the arms.

"The arms bolt to the platform at either end of the spray tank," says Penick. "To remove the hood, I just take out the bolts and disconnect the feeder hose from the spray tank."

A 4-ft. spray bar made from a length of conduit is mounted inside the hood. It's clamped to the ends of the conduit arms, which extend slightly through the back side of the hood. Four spray tips and the spray solution feeder hose are clamped to the conduit. Penick clamped short lengths of angle iron to the spray bar and drilled holes through them to hold the spray tips in place.

By mounting the sprayer and the hood to the mower deck, Penick can adjust the height of the spray tips. Short lengths of belting bolted to the bottom rear of the hood prevent any spray from escaping the hood.

"Even in a blowing wind, I don't have to worry about spray coming back at the mower," he says.

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Speed King telescoping conveyors extend from 14 to 22-ft. to easily reach different height planters and drills.



## **Telescoping Seed Conveyor Extends For Easy Filling**

Delivering seed to planters is quick and easy with the telescoping conveyor option on two seed delivery carts from Crust Buster Speed King. The company developed a general idea for the seed delivery system and worked with engineering students at Kansas State University to build the product.

"It was a joint project between our team of engineers and the K-State project team," says Wayne Daubert, marketing director for Crust Buster Speed King. "We saw a need that farmers had to reach further and higher to move bulk seed into central fills," Daubert says.

The company's telescopic tube conveyors range in price from \$14,600 to \$25,500 for six different models. With the size of farms growing and many farmers aging, most



K-Hart stripper header harvesting canola.

## **Stripper Header Saves Fuel, Boosts Harvest Capacity**

The new Raptor stripper header grabs grain but leaves the crop stems standing, where they can catch snow and retain moisture for the next crop. Processing just the grain, not the straw, cuts costs and speeds harvest. Fuel use is reduced by up to 50 percent and capacity is increased by an equal amount. There's also significantly less wear and tear on the machine.

"We had been selling our no-till disk drill to conservation-minded farmers for years, and many of them were interested in stripper headers," says Scott Ousdahl, K-Hart Industries. "We saw an opportunity where there was more demand than suppliers could meet, and there was potential for an innovative North American supplier."

The company decided they had the knowledge base they needed on stripper headers, and the product would be a good fit with their customer base.

The Raptor has an 8-bat stripping rotor that rotates opposite the direction of travel. Teeth on the bats grab grain on standing stems and toss it back to the hi-capacity auger. It's equally effective in picking up lodged grain.

While the Raptor is similar to other stripper headers on the market, K-Hart made some improvements and expects to make more. The Raptor features a double-acting deflector cylinder for positive control in both directions, as well as a variable-speed rotor drive. The optional 2-speed gearbox provides rotor speeds from 450 to 870 rpm's without pulley changes.

"We changed the linkage for the adapter to the combine to make it more responsive to ground conditions," says Ousdahl. "We also narrowed the drives by balancing them on both sides and narrowed the end shield to only 9 in., so there's less push-down on bushy crops like canola."

farmers would rather ditch handling heavy seed bags to fill their planters. Since many seed companies are now shipping bulk to the dealers, there's a big need to fill different sizes and models of planters and drills with bulk seed," Daubert says. "The telescopic tube works great to fill any size and brand of planter or drill."

The Crust Buster Speed King system uses belts on its tenders for gentle conveying, so the seed coat isn't damaged during handling. Daubert says their models generally run a belt at about 27 or 28 degrees on a regular crescent belt. The telescopic tube can be adjusted from 14 ft. up to 22 ft. and any length in between. The lineup includes a three-piece 12-ft. telescopic downspout on all units, which pivots 180 degrees. The conveyor can be mounted on a truck, trailer, or optional chassis and includes individual compartment control, with each compartment



K-Hart Raptor stripper header fingers.

This year they've sold a limited number of 41-ft., pre-production models. They include one that's started working its way north from Kansas with a custom combining crew. The company will be seeking feedback from these users to refine the Raptor before bringing it to market for 2024 sales. The price will be announced at that time.

"Our first goal was a really solid machine that would fit a common size and class," says Ousdahl. "The input these users provide will verify that we reached our goal."

The company's base market is in the prairie provinces of Canada, within about 200 miles of the border with North Dakota and Montana. Ousdahl notes that they are looking for growth beyond that base.

"The beauty of farmers is they're always looking for innovation," he says.

K-Hart plans to introduce 31, 35 and 45-ft. models in coming years.

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## having level-view windows.

The telescoping conveyors are easily cleaned so 100 percent of the seed can be removed, reducing cross-contamination, which often occurs when using augers or cleated belts. Another advantage is having an ACI rollover cover system so farmers don't have to worry about climbing into the tender and trying to open and close heavy metal covers. The Crust Buster Speed King website boasts that farmers can "fill a 40-ft. planter with one stop."

Daubert says their conveyors are built on Speed King Trailers or can be placed on a customer's trailer. The telescopic conveyors are available through implement dealers and most chemical and seed companies.

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