

# Weed Seed Destructor Coming To Market

An Australian machine allows grain farmers to harvest crops and destroy weed seeds at the same time. It's common practice in Australia to pull enclosed chaff carts behind harvesting equipment to collect weed seeds, which are later burned.

Ray Harrington thought burning was dangerous and not always effective, because he would see too much rye grass seed blow out of the carts. After more than a decade of work, he introduced the Harrington Seed Destructor a couple of years ago to be tested on Australian farms.

Chaff and weed seed go into the enclosed machine, mounted on a trailer behind the harvester. An impact mill pulverizes the seeds so they can't germinate.

Five years of testing by the Australian Herbicide Resistance Institute indicates that the destructor kills more than 80 percent

of weed seeds. By eliminating the seeds, Harrington's machine provides a non-chemical weed-control method.

"Currently it's direct-powered by its own engine, but we are looking to power it hydraulically or electrically," Harrington says.

After a couple of years of field research with prototypes, the first two machines will be manufactured this year.

Harrington says they will be useful for farmers anywhere battling all types of weeds.

Cost for the seed destructor is expected to be about \$150,000 (Australian dollars) or \$161,656 U.S. dollars.

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Photo courtesy Australian Herbicide Resistance

Chaff and weed seed go into an enclosed machine that mounts on a trailer behind combine. An impact mill pulverizes seeds so they can't germinate.



Still in the prototype stage, cover crop planter lets you plant a cover crop, spray for weeds and side dress nitrogen all in one pass.

## Multi-Task With In-Crop Cover Crop Planter

You can plant a cover crop, spray for weeds and side dress nitrogen all in one pass with the cover crop planter from Penn State University. Their 4-row prototype has patents pending, and the researchers are looking for a manufacturer to adapt it to large tool bars.

"We only did 4 rows for research purposes, but we have plans drawn up for a larger tool bar," says Chris Houser, Penn State. "Some of the toolbars designed for side dressing would fit well. Making three applications in a single pass eliminates a major cost with cover crop seeding."

The 4-row prototype is 3-pt. hitch-mounted. Liquid tanks for the fertilizer and herbicide mount over the toolbar. Seeding and applications are made in late June or early July.

"We apply the fertilizer at about 70 psi in a band about 4 in. to the side of the standing corn," explains Houser. "The tillage throws some dirt over the band, but we hope to incorporate the band with future models."

Primary tillage is provided by three, 2-in. wavy coulters spaced 4 to 5 in. apart in inner row units and 2 coulters each for the side rows. The 3 coulters create a 16-in. wide tilled area between the 30-in. row spacings. Each end unit tills 8-in. widths one way and the second 8-in. width on the return pass.

"The coulters break up the soil and slice through residue fine, yet leave enough residue to qualify as minimum till," says Houser.

A Gandy box dribbles out seed at low rates across the tilled area. Ryegrass was seeded at around 20 lbs. to the acre, and clover was put on at only 7 to 10 lbs. per acre.

The seed was followed by a Penn State designed roller that ensures good seed to soil

contact. A chain drag levels off any ridges.

"Our next generation will have more conventional multipacker wheels," says Houser. "Either way, rolling the seed gives us a more consistent stand, even with dry conditions."

The planter has only been used for two seasons. This past year, it was tested on several area farms and in university research fields. Houser reports fast results with ryegrass which, when planted in late June or early July, was growing well by early September. Red and white clover and other cover crops were slower to take off, but were in good growth by early November.

"If you plant a cover crop here after harvest, it doesn't have time to get much of any growth," says Houser. "We had a ton of forage produced in the fall this year and a ton produced by spring last year. Combined with an estimated 3 tons of corn fodder, it made a good feed supply for grazing livestock."

This past spring, corn was no-tilled in several areas that had been planted to cover crops. Houser reports that a burn-down herbicide application at planting eliminated the cover crop from competing. However, it continued to provide erosion control well into the season.

A video of the cover crop seeder in use can be viewed at [www.farmshow.com](http://www.farmshow.com).

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## Simple Bin Switch Could Save A Life

Rife Rude has a simple idea for a life saving grain bin auger switch. All it takes is an extension cord and a few minutes wiring time.

"I'm 80 years old, and I've been doing electrical work since I was 10, working on farms and around farmers," says Rude. "It hurts me to hear of farmers trapped in grain bins with the auger running. My extension switch lets the farmer keep the controls on him at all times."

Set up is easy. Rude disconnects the on-off switch, whether it's on the side of the bin or 100 ft. away on a shed wall. He installs either a lock-in or standard straight three-pin outlet in its place. He then mounts the switch to a box with a short male lead on it.

"Simply attach whatever length extension cord you need between the box and the outlet, and you can take your control the length of the cord," explains Rude. "If it accidentally

disconnects, the worst thing that will happen is the auger stops."

Rude once installed the simple switch on an auger control at a bin site where he was working. "All the controls were 150 ft. from the bin," he recalls. "If you were in the bin and needed to shut off a sweep auger, you had to climb out of the bin and run 150 ft. With my switch, I could shut it off from inside."

Rude uses standard orange (exterior) extension cords since it's only a control circuit and doesn't carry high voltage. He says his temporary extension switch has another advantage. Simply remove it when it's no longer needed, and plug the switch box back into the outlet.

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