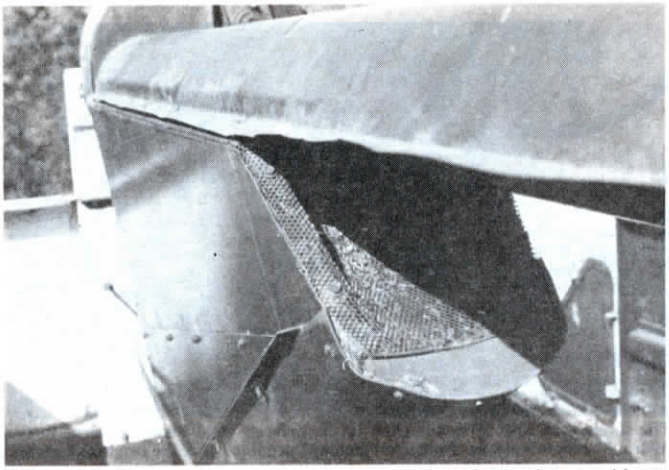


Unit consists of a screen cleaner that mounts on the grain tank spreader auger (shown in photo), and two weed seed and insect "destructors" - one that mounts behind the sieves and one that mounts on the side of combine.

"DESTRUCTOR" CRUSHES WEED SEED, INSECTS BEFORE RETURNING THEM TO FIELD

Combine Grain Cleaner "Destroys" Weed Seed

An Arkansas farmer-inventor hopes his new on-the-go grain cleaner that's coupled with a weed seed and insect "destroyer" becomes standard equipment for all makes of combines.

Johnny Reyenga, who farms near Prescott, has been working on his new combine-mounted devices for several years. They consist of a screen cleaner that mounts on the grain tank spreader auger, and two weed seed and insect "destructors" - one that mounts behind the sieves and crushes everything that comes out the back end of the combine, and a smaller one, mounted on the side of the combine, that crushes material coming out of the grain tank-mounted cleaner.

Last year the grain cleaner and "destructor" units were tested by reseachers at the University of Arkansas who found that the cleaner extracts up to 99% of foreign matter, boosts test weights, and even reduces moisture content of grain samples by getting rid of fines and other trash. University researchers also found that Reyenga's "destructors" crush virtually all weed seed and insects culled from the harvested grain.

"It doesn't make sense to separate out weed seeds and then dump them right back onto the field. The next year you buy chemicals to kill them," says Reyenga.

His cleaner/destructor devices are mounted on an IH 815 combine. The grain cleaner mounts on the grain tank spreader auger and consists of a cleaning chamber with a screen bottom. As grain passes from the clean grain elevator into the hopper, it passes over the cleaning screen. Weed seeds, insects, fines, fall down through the screen, and are funneled into a tube that carries the material to the destructor mounted on the side of the combine. A pair of rollers crushes everthing that's fed into it.

"As far as I know this is the first weed seed and insect destroyer mounted on a combine," says Reyenga, who's patented the idea and is negotiating with manufacturers to bring the cleaner/destructor on the market. "I built it mainly to crush weed seeds but was surprised at how many insects it kills. It does a tremendous job."

Dr. Mike May at the University of Arkansas experiment station near Hope, Ark., tested Reyenga's cleaner/destructor in soybeans last year. According to a report he issued on the tests, "It appeared to work well in the field. The cleaner removed weed seeds, insects, soil particles, stones, soybean plant residues and other small particles. Reduction of foreign matter lowered moisture content of test samples. Rolling and crushing foreign matter as it comes off the sieves and out of the cleaner destroyed insects and rendered most weed seed incapable of germination."

Dr. William Loe, director of the research station, said the tests were impressive. "We were able to verify that it works the way he says it would. We're helping obtain patents and will assist in working with manufacturers interested in the idea."

In tests, the cleaner reduced foreign matter in soybeans from an average of 7.7 percent to 1.9 percent. In some cases, foreign matter was reduced to less than 1 percent. Moisture content dropped nearly 1 percent, and test weight increased an average of about 4 percent.

"I never have to clean grain back at the farm. It comes in clean from the field," says Reyenga.

The cleaner requires no power to operate and only displaces 2 to 3 bushels in the grain tank. The small destructor mounted on the side of the combine is powered off the straw walker drive. The larger destructor unit, which mounts across the sieves at the back of the combine, is also powered off the straw walker drive, although Reyenga plans to drive future models with a hydraulic motor so speed can be easily varied. Generally, the higher the speed of the rollers, the better they work, he says, adding that, "They require very little power."

Reyenga says he can mount his cleaner/destructor on any combine for use in any grain.

Contact: FARM SHOW Followup, Johnny Reyenga, Rt. 6, Box 140, Prescott, Ark. 71857 (ph 501 887-3678).

Sprayer boom raises and lowers hydraulically from 15 to 40 in. high.

BIG WHEELS PROVIDE A SMOOTH RIDE

Self-Propelled 3-Wheel "Swather" Crop Sprayer

"My 3-wheel self-propelled sprayer offers better clearance, capacity, and flotation than any commercial high-clearance sprayer," says Aldean Luthi, Hancock, Minn.

Luthi built the 64-ft. wide sprayer from junked-out machinery. It's equipped with two large 12.4 by 38 front tires and a single 12.4 by 24 rear tire. The boom raises and lowers hydraulically from 15 to 40 in. high and the wings fold back for transport. A 540-gal. polyethylene tank is mounted between the front wheels. The entire sprayer rides on an air bag suspension system.

To build the sprayer Luthi salvaged the cab from a 4-WD Case tractor, the frame from an Owatonna self-propelled swather, the final drive from an International Harvester cotton picker, the power steering and front yoke from a Deere 4020 tractor, the 125 hp engine, automatic transmission and transfer case from a 1975 Chevrolet pickup, and front wheel rims from an Oliver tractor.

"This sprayer is actually a modified version of a 4-WD pickup sprayer that I built two years ago," says Luthi. "It worked, but had a poor suspension system, poor visibility, and only 1 ft. of crop clearance. It straddled only two rows and was unstable on side hills. I used that sprayer's engine and front tires to build my new sprayer. It straddles four rows for greater stability, and I can use it for banding, broadcast, or over-the-top spraying. The 40 in. of clearance allows me to use drop nozzles in corn to control grasshoppers.

"I spent about $20,000 to build the sprayer. Comparable commercial sprayers cost $30,000 to $35,000 and most of them have smaller tires which makes for a bumpy ride over center pivot irrigation tracks. My sprayer's large rear tires soften the ride. I bought the boom from Blumhardt Co. and painted the sprayer frame to match the boom's blue color. A belt-driven pump in front of the engine operates the sprayer pump and raises and lowers the boom. The conventional nozzles are spaced 30 in. apart and drop nozzles are spaced 15 in. apart. Another benefit is that this sprayer has a 540-gal. fuel tank whereas most commercial self-propelled sprayers have only a 200-gal. tank. The high-low range transfer case allows me to spray at 12 mph and go 25 to 30 mph on the road."

For more information, contact: FARM SHOW Followup, Aldean Luthi, RR 1, Box 132, Hancock, Minn. 56244 (ph 612 392-5864).

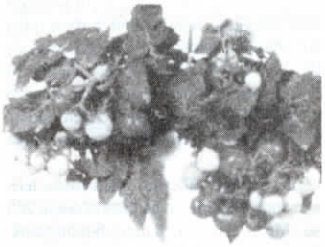
You'll Like These New "Mini" Tomatoes

Salad eaters will love these new "Micro-Tom" tomatoes, developed at the University of Florida, that are less than half the size of cherry tomatoes.

You'll be able to sprinkle the new mini tomatoes on salad just like croutons. No more squirting juice like you get when you cut into a cherry tomato.

Dr. Jay Scott and Dr. Brent Harbaugh, at the University of Florida research station in Bradenton, started work on the new variety in the early 1980's. They produced it by cross-breeding a dwarf Florida tomato variety with an Ohio variety that had small leaves and fruit.

An average tomato plant is 20 times larger than a Micro-Tom plant, which will be ideal for indoor growth in pots. "Micro-Tom tomatoes are unusual because all the parts of the plant have been reduced in size. Other dwarf tomato plants are short but their leaves remain relatively large compared to the rest of the plant," says Scott, noting that Micro-Toms can be grown outside in all parts of the country.



"Micro-Tom" tomatoes are less than half the size of cherry tomatoes.

Scott and Harbaugh are negotiating with several seed companies that want to begin selling seed for the open-pollinated variety. Seed may be on the market by fall of 1990.

Contact: FARM SHOW Followup, Dr. Jay Scott, University of Florida Research Station, Bradenton, Fla. 34201 (ph 813 755-1568).