



**XPow machine produces pulsating electricity with a rear-mounted generator driven by the tractor pto. It kills weeds almost immediately.**

## New Machine Zaps Weeds Electronically

Crop and vegetable producers looking for an alternative to chemical weed control have a new mechanical option called XPow, made by Zasso. The XPow uses pulsating electricity to kill weeds almost immediately. The current bursts chlorophyll cells, which destroys their water uptake system.

John Downes, precision farming specialist for CNH Industrial, which has teamed with Zasso to market the machine in Europe, says weeds will start wilting within 10 to 15 min. after treatment.

The machine produces electricity with a rear-mounted generator driven by the tractor pto. Power is transferred to a front-mounted applicator through a high voltage cable and connectors. Two rows of offset paddles make contact with the ground across the width of the machine, passing electricity through any plants on the soil surface, sending it down to their roots. A row of negatively charged paddles on back of the machine provide another burst of electricity, creating what Downes says is a double killing effect.

The XPow can zap any size weed, work in any temperature, and unlike many spray products, is able to kill herbicide-resistant weeds. Downes says the machine can run in the daytime or night and has negligible effects on earthworms. It can be used in burndown and field preparation or in row crops during



**Photo shows a field where XPow has annihilated all weeds.**

the growing season.

The machine has good potential for orchards, vineyards and municipalities where herbicide applications are becoming more restrictive.

Downes says work continues on developing artificial intelligence and camera technology for the machine so it can recognize certain weeds and eliminate them, but not growing crops. Currently a 10-ft. wide machine is priced at around \$200,000, so ownership will likely be confined to large operations or contract applicators. Two machines are currently working in Austria and Germany.

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## Double-Wheel Hoe Straddles Rows

The double-wheel hoe from French garden toolmaker Terrateck makes cultivation easy. The twin wheels straddle rows and quickly attach to a variety of tillage tools.

"It is a great manual tool for anyone with a large garden and for small fruit and vegetable producers," says Simon Touchette, Dubois Agrinovation.

The 2 wheels allow tools to be used in extreme proximity to seedlings, as close as 1 1/2 in. with Terrateck's preci-discs attachment. Other tools include a simple market gardening hoe, finger weeder, dual blades that undercut weed roots, bio discs for precision weeding and hilling, a roller for seeding, spring harrows, stirrup weeders, and more.

The hoe can be equipped with an offset mounting arm, as well as with various support arms and tool mounts. It's 47 in. long and 14 in. high with a tool mount height of 10 in. Overall height and angle adjustments adapt to the user, and the pneumatic tires adapt smoothly to uneven ground.

Dubois is the Canadian distributor for Terrateck and markets in the U.S. via its online store. It is priced at \$510 (Canadian). The double-wheel hoe is also marketed by Johnny's Seeds in the U.S. for \$425 (U.S.)

Contact: FARM SHOW Followup, Dubois



**Twin wheels on hoe straddle the row, making cultivation easy. Wheels also quickly attach to a variety of other tillage tools.**

Agrinovation, 478, Notre-Dame, C.P. 3550, Saint-Rémi, Qué. Canada J0L 2L0 (toll-free 800 463-9999; www.duboisag.com); or Johnny's Selected Seeds, P.O. Box 299, Waterville, Maine 04903 (toll free 877 564-6697; www.johnnyseeds.com).



**Mobile henhouse rides on 6 wheels and can be easily pulled by a UTV or ATV. It comes with a 1-ton feeding system on front.**

## Mobile Henhouse Designed To Be A Money-Maker

Josh Stoltzfoos designed his mobile henhouse so he could be more competitive with other pastured poultry growers in his area. Today, he and his brother Cliff are building mobile houses for others as well as using them in their own egg laying operation.

"We were using sheds on wheels for our pastured poultry, but they would blow over in high winds and were not efficient," says Cliff. "The pastured poultry egg market is extremely competitive in this area. You have to be efficient, get good production, and have healthy birds. Our mobile chicken house allowed our operation to survive and thrive."

When Josh took over the pastured poultry business from an older brother in 2006, it consisted of 600 hens. Since designing the new mobile houses, he and Cliff have expanded to between 3,000 and 4,000 birds on pasture. They deliver eggs to wholesale and retail customers throughout the state of Pennsylvania and surrounding areas.

While the design has gone through some fine-tuning, the basics remain the same. Each 12 by 25-ft. house has more than enough roosting space for the recommended 650-bird capacity. Houses sit on 6 wheels with rear tandems and are easily pulled by a UTV or ATV. Each is equipped with an automated 1-ton feeding system, a 150-gal. watering system, and a 2-tier, roll-out community nest.

An excluder keeps birds out of the nests at night. During the day, hens lay eggs on conveyer belt floors in each tier of nests. Eggs are gathered at the end of the house as the conveyer belt revolves, powered by a hand crank.

"Initially we had metal side panels, but our newer houses have the woven poly fabric all the way to the floor," says Cliff. "It is practically indestructible and makes it easy to access the back of the nests if needed."

Lights can be adjusted at the control panel for the desired amount of light each day. Exit ramps are easily adjusted for height.

The perforated plastic floor is designed to be self-cleaning, and the fabric cover keeps the interior warm and bright. In fact, it allows enough light in that Cliff recommends adding shade cloth to reduce light and heat in the summer. A mounted, 230W solar panel and battery bank provides automation and lighting power.

Within 5 years they were getting requests for similar units, and 2 years ago they began



**Inside view of henhouse shows nests, roosts, and feeders.**

marketing them. They have sold them as far away as Bellingham, Wash., and are starting to make sales in Canada.

The standard house is priced at \$24,000. Options include an automated, light sensor-operated lighting system.

"You set it for the hours of light you want, and it automatically turns the interior lights on and off based on available, outside light," explains Cliff.

Other options include automated exterior doors and a water freeze prevention system (recommended for colder areas).

"We've recently introduced the 300 model for 300 birds or less," says Cliff. "We had a lot of interest from farmers not ready to start with 650 birds."

The 300 bird unit is priced at \$13,500 and is not as automated as the larger unit. Cliff notes that prices will be increasing the first of the year.

"Our steel prices have gone up 17 percent, and we simply have to raise our prices," he says. "The 650 bird house will increase by \$1,500 on January 1."

The Stoltzfoos brothers build to order. Place an order today, and a mobile chicken house will be ready in 3 to 4 mos.

"We require 50 percent down and the remainder on delivery," says Cliff. "The deposit can be reduced if we are given a longer lead time to build the house."

The brothers also sell their 2-tier community egg nests separately for producers who already have a mobile house.

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