Weed-Killing Steam Machine Can Also Be Used To Clean

Weedtechnics, an Australian company, has developed saturated steam generators that kill weeds in a single pass. When finished with weed control, the equipment can be used for cleaning and sanitizing equipment and facilities.

"Jeremy Winer, the inventor, has been working in agriculture and landscape his whole career," says Dan Dows, director, Steam 'N' Weeds, Weedtechnics' Canadian distributor. "We've worked with it for the past year and a half and are doing local contracting, as well as selling wand and multi-row units."

Dows turned to steam-powered weed control for organic food production. "My family got sick, and we are pretty sure it was due to glyphosate," explains Dows.

Not only does the steam weed control eliminate the need for herbicides, it cooks weeds on contact and is safe for trees and shrubs. It leaves no residuals besides water, doesn't' harm soil microorganisms, and requires no foaming surfactants.

The saturated steam is delivered at 205 to 218 degrees F, but at only 15 psi. It coats target vegetation without affecting surfaces or penetrating more than about 1/4-in. of soil. Effective control depends on the type of weed and stage of growth.

Dows says the current line of Weedtechnics' machines is designed for nurseries, intensive small acre farms, vineyards and orchards. The

SW700 is the most compact and is designed for killing weeds in confined areas. It is equipped with a hand applicator wand with a spread of up to 19 in. or a 12 or 24-in. closed head for the wand.

The SW800 can be trailer-mounted or skid-mounted or used with a 3-pt. hitch. It can be equipped with the hand applicator or with one of their Rowtech applicator heads.

The SW900 also offers multiple mounting options. It can support 2 Rowtech applicator heads

Heads come with 15 or 19-in. coverage width. They offer a nylon or rubber insulating dome skirt that protects nearby plants while directing steam at weeds below. The heads can be mounted on single or dual arms that pivot vertically and horizontally with a breakaway that allows the domes to roll around non-target plants. The heads are also available on a hydraulic arm.

"We will soon be introducing the SW2100," says Dow. "It is the first unit designed for use in commercial farm fields. It has an output of 40 gpm, which can supply up to 8 Rowtech heads."

Dows suggests FARM SHOW readers contact him or Dave Johnson, Steam Cleaners, Inc., the U.S. distributor (www. steamcleanersinc.com; ph 800-648-1118). Prices start at \$12,990 for the SW700.

Check out a video of steam weed control at FARMSHOW.com.



An Australian company has developed saturated steam generators that kill weeds in a single pass. Several machines are available including this one that supports 2 applicator heads.

Contact: FARM SHOW Followup, Steam 'N' Weeds, Wainwright, Alta. Canada (ph 587 437-8326; info@steamnweeds.com; www.

steamnweeds.com); or Weedtechnics (ph 011 612 9986 1505; jeremy@weedtechnics.com; www.weedtechnics.com).

They're Killing Weeds With Electricity

Electroherb equipment designed to kill weeds with electricity is coming to North America in September. The Brazilian Zasso Group has already opened a division to sell their "digital herbicide" in Germany and is actively looking to do the same in North America. The company offers a wide range of electro weeders from a 1 kW corded unit for gardens and yards to a 1,000 kW unit for fields, roadsides and forests.

"The technology was originally developed for forestry, but we have done work in fruit, vegetable, grain and soybean production" says Sergio Coutinho, Zasso Group. "We've also done weed control work in urban markets with municipalities."

Coutinho says the technology is especially appropriate for organic production where there are so few alternatives. It is also a good option in conventional crops troubled by herbicide resistance.

High frequency and high voltage are produced by the unit and applied through an electrode to the weed, into the roots, and into the soil around it. When a second grounding electrode touches a nearby weed, the circuit is complete and roots and shoots of both are destroyed.

A variety of application heads, designed for the vegetation to be controlled, deliver the charge to the plant. The "contact only" design means you have to touch the electrodes themselves to be harmed.

A person standing alongside a plant being "burned" by the equipment is completely safe, even in wet soils.

Environmental conditions do affect how the electrical energy is delivered. Coutinho explains that you want the same power delivered under all conditions, but to reach that requires more current and less voltage in wet soils. Dry soils require more voltage and less current. Plant type also plays a role. "Broadleaf plants have a very large leaf system compared to their root system and are more easily controlled than grasses with their larger root systems," says Coutinho. "Broadleaf plants also have a higher water content."

Because the energy is transmitted throughout the plant, disrupting cells from plant tip to root, the company claims electrophysical control to be more effective than cultivation. There are no resistant plants, nor is control affected by weather conditions after application. Physical "contact only" control means there is no worry over misapplication or movement off target.

In addition, weeding near stems of desirable plants is possible. Erosion is reduced compared to cultivation, and there is no impact on water quality.

In Brazil, units are pto-powered or powered by a stand-alone generator on a trailer or aboard a truck. Coutinho expects a similar setup when introduced in North America. He says the company is working with European tractor makers, who are developing on-board generators.

"We are very enthusiastic that we are not the only ones looking at electrical applications in agriculture," says Coutinho.

Due to initial equipment costs, the company plans to lease equipment or offer weed control services, especially in seasonal markets. "While the final cost per acre would depend on the crop, we are currently charging around \$20 per acre," says Coutinho.

Check out a video of the electro weeder at FARMSHOW.com.

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A Brazilian company that makes machines designed to kill weeds with electricity, plans to sell and lease equipment in North America.

Here's An Herbicide That's Safe Enough To Eat

Weed Zap is an all-natural, non-selective alternative to synthetic weed killers. It is especially effective on broadleaf and grass weeds that are 6 in. or less in height. It is approved for organic food production.

"Weed Zap is made from essential oils," explains a J.H. Biotech spokesman, maker of Weed Zap. "Its effectiveness increases with heat and sun activation. The best conditions for application are a sunny day with 80 degree temperatures."

Weed Zap's active ingredients are largely clove and cinnamon oils. They are all food grade materials, making the product safe around children and pets. It is a contact herbicide effective on green tissue and is 100 percent biodegradable. Adequate coverage is needed for effectiveness. The company says Weed Zap provides long residual control.

Results can be seen in as little as 6 hrs. after application. The natural herbicide is easy to mix and has a pleasant clove scent.

Weed Zap is available online from Amazon as well as from retailers. Most retailers now



Weed Zap is made from essential oils and is approved for organic food production. Photos show results after one application.

carrying the product are located on the West Coast from Washington through California to Arizona. If your local retailer doesn't carry it, they can order it from J.H. Biotech.

Contact: FARM SHOW Followup, J.H. Biotech, 4951 Olivas Park Dr., Ventura, Calif. 93003 (ph 805 650-8933; toll free 800 428-3493; info@jhbiotech.com; www.jhbiotech.com)