Diesel-powered machine heats water up to 220° to kill weeds. New design cuts water usage to 15 gal. per minute.

Machine Uses Boiling Water To Kill Weeds

More than a few eyebrows were raised four years ago when we reported on a machine that uses boiling water to cook weeds to death (Vol. 17, No. 1).

The “Aqua Heat” machine is still on the market but has gone through some changes since then.

“We had a 100% kill rate on weeds, the amount of water used was a problem,” says Chapman Mayo of Aqua Heat Technology Inc., Minneapolis, Minn.

For example, the original machine, with a 1,500-gal. stainless steel water tank, used 60 to 90 gallons of water per minute at necessary application rates of 1,500 to 2,000 gallons of water per acre. That made it impractical for use on a large scale, Mayo says.

However, by redesigning the system, the company was able to reduce water usage to no more than 15 gal. per minute with the same effectiveness, he notes.

The machine uses a large heating coil that brings water up to 220° fired by number two diesel fuel. The machine is being tested for landscape use in several municipalities around the country as well as at a North Carolina air force base, Mayo says. Like wise, they’re being used in several orchards, including one in Massachusetts where it’s being tested as a way to combat apple scab and insects.

The company is working on a new version of the machine that may make it practical for use on large farm acreage.

“We’re working with a wet foam made from soybeans which acts as its own insulating device to keep heat from dissipating from the vegetation too fast,” he says. “We’re hopeful the foam will allow us to increase speed from the 1 1/2 to 2 mph we’re currently able to travel.”

Tests have also been conducted with the machine for potato and cotton desiccation and killing alfalfa tops in winter.

The company hopes to have two production units on the market next year. Prices will range from approximately $8,500 for the smallest to $14,000 for the biggest.

Contact: FARM SHOW Followup, Aqua Heat Technology Inc., 8030 Main St. NE, Minneapolis, Minn. 55432 (ph 800 426-4328 or 612 785-2661; fax 2631).

“Prairie Dog Sucker Upper” Going Strong

Five years ago FARM SHOW reported on the “Prairie Dog Sucker Upper” invented by Cortez, Colo., resident Gay Balfour (Vol. 15, No. 5). The machine, which was built out of a vacuum-powered street sweeper, sucks prairie dogs, gophers, moles and other underground rodents out of their holes and into the back of the enclosed truck where they’re gassed and disposed of.

The article generated tremendous interest from all over North America.

Now, Balfour and his partner, Dave Honaker, have added a new international wrinkle to their prairie dog removal business, which they call “Dog-Gone.”

What happened is that a market for prairie dog pups opened up in Japan. They’ve sold more than 600 pups to an exporter for $25 apiece. The exporter sells the pups for as much as $1,000 a pair in Japan, where they’re rapidly becoming trendy pets.

In order to “harvest” the pups successfully, the men heavily padded the inside of the truck with soft foam rubber.

In the meantime, Balfour and Honaker

Revolutionary microwave hay dryer uses 210 ordinary household microwave motors to dry hay “on-the-go”.

Microwave Hay Dryer Survives Death Of Inventor

No story in recent memory has sparked as much interest as the “on-the-go” microwave hay dryer first featured in FARM SHOW nearly two years ago (Vol. 18, No. 6). Response to the invention, which uses ordinary household microwave “motors” to dry hay in the field, was so overwhelming we included it in our “Best Of FARM SHOW” Video Vol. II.

Commercial development of the innovative hay dryer was dealt a major set-back late last year with the unexpected death of its 61-year-old inventor, Harold Herron. He suffered a massive heart attack at a Lake City, Fla., hospital and died December 24, 1995.

The machine then took a back seat to setting Herron’s estate. Now, work has resumed to bring the machine to market, as Herron had dreamed. The 50-ft. long hay dryer features 210 ordinary household-type microwave units and a 7-ft. wide bale-type pickup. Seven 11-in. wide conveyor belts run the length of the machine. It’s powered by a 580 hp diesel engine in the middle that drives a 320 kW generator that supplies electricity and a hydraulic pump that runs the conveyor belts and pickup.

“We tested it last summer and found it worked perfectly on Harold’s light South-eastern Coastal and Bahai grass hay,” Barbara Coulthurst, Herron’s long-time personal accountant and now CEO of the Hay-Dry company, told FARM SHOW.

“But we felt it also should be tested in heavier hay. So we tested the machine for two months this summer on 55 acres of heavy alfalfa at the farm of John Roe, a Milverton, Ontario, commercial hay producer and entrepreneur. We found we needed to increase air flow with heavier, wetter hay because we were getting too much steam and condensation inside the drying chamber. We installed a bigger fan and some ductwork in the aluminum housing over the conveyor belts to solve the problem.”

Roe says: “With the increased air flow, we should be able to dry 1 to 1 1/2 tons of alfalfa per hour, which is adequate for yields in our second and third cuttings. But we still hope to increase that capacity by two to three times to make it commercially viable for first cuttings too.”

Meantime, a business plan is being drafted and negotiations are in progress with a North American manufacturer, Holland Equipment Co., to produce the machine, which has also dried other high moisture crops such as Palmetto berries and ginseng root with excellent results, adds Coulthurst. “We responded to hundreds of letters - I can’t begin to estimate the number of phone calls - from all over the world generated by FARM SHOW’s initial article. And we’ll do our best to keep readers apprised of any significant new developments,” she says.

Contact: FARM SHOW Followup, Hay-Dry, P.O. Box 258, Mayo, Fla. 32066 (ph 904 294-1380; fax 3067).

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Gary Balfour (right) and partner Dave Honaker (left) with the “Dog-Gone” gopher getter. The two men have found a lucrative overseas market for prairie dog pups. They can clear about 20 acres a day, or as many as 800 holes, each of which can contain two or three prairie dogs.

Contact: FARM SHOW Followup, “Dog Gone”, 36 North Madison St., Cortez, Colo. 81321 (ph 970 565-9878).