"They won't flame out like a single orifice model because one flame can reignite the other. I guarantee the unit won't go out," says Kadelbach.



Farm-Built Dual Flame Weeder

Glen Kadelbach organically farms 360 acres outside Hutchinson, Minn. He makes and sells flame weeders as an organic alternative to herbicides. These weeders enhance productivity, eliminate tough weeds, and improve overall crop yields for profitable growing seasons.

"Flame weeders were patented back in the 1800s," says Kadelbach. "I bought one in 2012, and it was just okay. I figured there had to be improvements possible with the torches, so I began tinkering until I had a design I liked. My organic neighbors saw and appreciated it too, and that's how we got into business."

Kadelbach flame weeders operate as tractor attachments that torch unwanted plants with jets of propane-fueled fire. They flash-boil the moisture in a weed's cells, causing them to burst. This prevents the plant from photosynthesizing, ensuring it dies down to the root. "My torches are the only dual orifice design on the market," says Kadelbach. "They won't flame out like a single orifice model because one flame can reignite the other. I guarantee the unit won't go out."

He recommends making three field passes over a growing season for optimal results. The first should occur before the crop emerges. "Once the plants develop about three leaves, you can go over them again," he says. This should be a broadcast burn over the entire field. The crop will recover, although things might appear bare for five to seven days after the flaming. Then, he suggests waiting until the plants are about 10 to 12 in. tall for the third and final pass. "Angle the weeder's torches to make a series of crisscross patterns. This avoids the plants' leaves and stalks but gets the weeds growing underneath."

Kadelbach flame weeders are designed for easy repairs so that owners can use parts from local hardware stores. The farm remains invested in sustainability, and newly installed solar panels ensure that each flame weeder is manufactured using green energy.

The flame weeder is ideal for mediumscale organic operations. "We think it works well for farms 120 acres and above," says Kadelbach. "We customize all units and offer sizes from eight rows up to 16. Contact us by phone or through our website to talk design specifics. Then we'll work to get you a quote."

Contact: FARM SHOW Followup, Kadelbach Manufacturing, LLC., 20364 210th St., Hutchinson, Minn. 55350 (ph 888-563-4109; www.kadelbachmfg.com).

Drawbar's 12,000-lb. towing capacity allows the unit to tow the largest implements.



Semi Hitch Transports Farm Equipment

Since it's not always practical for farmers to move today's large planting equipment, fertilizer applicators, tillage machinery, and grain carts with a farm tractor, Bestway Ag introduced the Retriever Transport Hitch. This hitching system converts tandem axle semi-trailers into 2 and 3-pt. implement towing vehicles.

The standard hitch features a sturdy lifting point for easy mounting using a forklift or tractor loader. Operators simply lift the unit and drive it onto the truck from the rear. Installation and removal are quick and easy, usually in 5 min. The portable hitch features a hydraulic lift mast, CAT 2 and 3 hitch systems, and a removable CAT 2 or 4 drawbar for towing larger implements. The hitch can be swapped from a CAT 3 to a CAT 2 in seconds.

"The Retriever has a removable 2-pt. hitch system to move hay equipment, corn planters, mower conditioners and other large machinery," says Bestway Marketing Director Dave Benson. It features a drop pin-style hammer strap that makes connections to any drawbar-type equipment simple. The drawbar's 12,000-lb. towing capacity allows the unit to tow the largest implements.

A 12-volt hydraulic power pack, housed in a weatherproof enclosure, raises and lowers the mast for easy hookup at various heights. The truck's trailer light plug-in supplies power to a 12-volt battery and charging system.

"There's also a plug-in for lights and flashers when towing down the road," Benson says. "Hydraulic valves controlled by remote push button controls make folding and unfolding machinery simple after arriving at the destination."

Bestway encourages interested customers to contact them through the website for prices and availability.

Contact: FARM SHOW Followup, Bestway Sales LLC, 2021 Iowa St., Hiawatha, Kan. 66434 (ph 785-742-2949; sales@bestwayag. com; www.bestwayag.com).



Six geothermal heat pumps in the milking barn send fluid through a closedloop system of 10,000 linear ft. of HDPE piping filled with antifreeze.

Fresh Milk Heats Dairy Farm

The Stobbe family dairy farm in Abbotsford, B.C., began in 1953 with a single cow as a wedding gift. As the farm's lands and infrastructure demands grew, the family moved its expanded 225-cow dairy northeast to the Shuswap region in 2003.

"The area didn't have any natural gas, and we didn't want to rely on propane," says A.J. Stobbe. "We got to thinking that if we have to chill the milk and heat the barn, wouldn't it be cool to harness one to do the other?"

From this offhand thought, a creative method was developed to heat the dairy's milking parlor, house and swimming pool. Inspired by leading-edge European dairies, the Stobbes installed a geothermal system to pull heat from the farm's milk supply and store it in underground piping. The raw milk is essentially flash-cooled to 2 C (36 F) in the chiller before reaching the large, insulated storage tank.

"The biggest benefit is the milk is already cooled when it hits the storage tank, so it only needs to maintain itself at that level," Stobbe says. "It's better for milk safety and quality, plus it's not wasting electricity constantly trying to cool it down."

Six geothermal heat pumps in the milking barn send fluid through a closed-loop system of 10,000 linear ft. of HDPE piping filled

with antifreeze. These lines are buried at 6 and 10 ft. depths under a 2-acre section of the farm's cornfield.

The system removes heat in the form of heating or adds heat in the form of cooling. Stobbe says the entire clay field will be warmed during the summer. Since the clay holds heat well, the farm can use the supply through the winter months.

"This field section is 27 C (80 F) by the end of summer. During the winter, when we're sucking out the heat, it remains frosty long into spring and is always the last area for the snow to melt," Stobbe says.

All the farm's buildings use in-floor heating systems to incorporate the heat energy from the buried closed-loop piping.

Stobbe says they've made some upgrades since the system was installed, and it still works great.

"Originally, the equipment and installation total was six figures, but what does electricity cost to run a dairy farm's heating and cooling for over 20 years? I haven't penciled it out, but it's probably more than that," Stobbe says.

Contact: FARM SHOW Followup, Serene Lea Farms and Village Dairy Ltd., 3475 Smith Dr., Armstrong, B.C., Canada VOE 1B1 (ph 250-517-7454; sereneleafarms@ gmail.com; www.villagecheese.com).

Fencing Invention Like Having An Extra Set Of Hands

Several years ago, Mike Sykes moved his cattle operation from Mississippi to an uncared-for ranch in Oklahoma that needed extensive fencing. After spending weeks walking back and forth, building new fences and lifting wires as he tightened them, he knew there had to be a better way. Finally, with what he believes was a little divine intervention, he developed the T-Post Hook, a small plastic hook-shaped clip that snaps onto metal T-posts and supports almost any type of wire.

"It's like having extra hands in the field holding the wire up as you tighten it without having to go back and forth and pull it out of the grass," Sykes says.

The final product design required several prototypes to achieve the right shape and quality to support the wires and resist breakages in cold weather.

The T-Post Hooks are easily installed by pressing them with enough pressure that the lipped ends snap into place over the posts. Sykes says adding a clip about every 10 to 12 posts or 125 ft. is adequate. Once the wire is laid out, place it in the hooks and tighten. Once permanent clips are added, the T-Post Hooks can be removed and saved for the next stretch of wire. "You can even snap the hooks on upside down to keep the wire down if you're going over a low spot or a ditch," Sykes says. "My customers say it's the best fencing tool ever."

He initially designed the hooks to hold barbed wire, but they also work with hog or



Sykes says adding a clip about every 10 to 12 posts or 125 ft. is adequate. Once the wire is laid out, place it in the hooks and tighten.

chicken wire. They're useful for hunters setting up temporary blinds and hanging plant pots or other items around the garden.

The T-Post Hooks are manufactured in Jackson, Miss., and are commercially available in stores throughout Oklahoma, Texas, Mississippi and Louisiana or directly from the website. They sell in 10-packs for \$18 plus S&H.

Contact: FARM SHOW Followup, Mike Sykes, 16225 North County Road 3370, Stratford, Okla. 74872 (ph 580-759-9630; tposthook@gmail.com; www.tposthook. com)