

The HyGrO system injects hydrogen and oxygen into water as it passes through the system. Photo shows regular growth (left) and with the HyGrO system (right).



Boosting Crop Yields With “Electrified” Water

HyFrontier Technologies says it can boost crop yields by injecting molecular hydrogen and oxygen into irrigation water. Water lines run through the company’s HyGrO system which makes plants healthier with bigger root systems, according to company founder Bob DuBose.

“Farmers understand the nitrogen benefit they get from thunderstorms, but no one realizes that hydrogen is being split out also,” says DuBose. “We deliver hydrogen and oxygen by performing electrolysis on water passing through the waterline.”

The HyGrO system connects directly to the waterline. The hydrogen and oxygen that are produced are injected back into the water flow on its way to plants.

“We found that hydrogen produced this way really improves a plant’s growth,” says DuBose. “We have seen a 21 to 40 percent higher yield with crops irrigated with our HyGrO system treated water.”

DuBose has developed several models of the HyGrO system. They include Single Core and Dual Core devices to be used with household water lines up to 1 1/2 in. for indoor and small farm use. The Thunderbolt system is designed for larger row crop areas and 4, 6, 8 and 12-in. water lines. DuBose describes the unit as sitting like a saddle on an irrigation line and diverting the amount of water needed.

All the HyGrO systems have an extended life span, according to DuBose. They are designed to slow the water flow rate to reduce wear on the components. He reports using the same technology in other systems for more than 10 years without any corrosion or erosion of the components.

“We are in production, but not yet introducing the systems into the market.”



Systems come in different sizes and can be used with small water lines to 1 1/2-in. and larger row crop lines up to 12-in. in dia.

says DuBose. “We are doing testing with specific crops on farms around the country to learn what the impact on yields is. We have tested the system on cut flowers, a multi-billion-dollar market. Hydrangeas that usually need to be ordered the day before an event are still healthy after 30 days. We are seeing the same impact on roses, carnations and others.”

“We will roll out our Single and Dual Core units in 2022 and then soft launch our Thunderbolt unit,” says DuBose. “Instead of selling the equipment, we will lease it using a subscription model.”

Pricing has not yet been established.

Contact: FARM SHOW Followup, HyFrontier Technologies, 5914 Dasher Ct., New Port Richey, Fla. 34668 (www.hyfrontier.com).

Quick-Tach Front Lift For ATVs

“Our patented new Quick-Tach Lift makes it easy to use forks, snow blades and other attachments on the front of ATVs and UTVs,” says John Gustafson, THOR Attachments.

The front-mount winch-powered lift features a quick-tach plate with spring-loaded latch pins that allows quick and secure mounting of attachments. Once engaged, the attachment is raised and lowered by an electric winch (supplied by the customer).

The winch cable goes over an elevated pulley that raises and lowers the quick-tach faceplate. A top link, in combination with two lift arms, maintains the position of the plate at a consistent angle.

The THOR front lift attaches to the ATV by simply slipping it into the front 2 by 2-in. receiver hitch. Then the winch cable is run up over the lift pulley and hooked to the quick-tach faceplate.

To hook up an attachment, line up the faceplate with the receiver plate on the backside of an attachment and raise the faceplate to engage with the receiver plate.

To switch attachments, simply release



THOR Quick-Tach mounts to the ATV and allow various attachments that can be raised and lowered with an electric winch.

the latch pins, lower the attachment to the ground, and back away.

Sells for \$1,295. Weld-on receiver plates to fit implements sell for \$145. Several attachments are available equipped with receiver plates.

Contact: FARM SHOW Followup, John Gustafson, THOR Attachments LLC (ph 715-797-0325; thorllc@yahoo.com; www.thorattachments.com).



Klassen developed a hydraulic tree spade for use with his compact tractor that costs far less than larger models commercially available.

“Made-It-Myself” Tree Spade

Alvin Klassen, Delisle, Saskatoon planted some trees on his property too close together and had no way to transplant them to better locations. So, he decided to build a compact tree spade that attaches to a compact tractor, skid steer or any other machine with forks and adequate hydraulics.

“I wanted something simple and lightweight without a hinged front. It has pointed spades that are light enough to use with a compact tractor. It was built with old school engineering – cardboard cutouts and lots of measurements” says Klassen.

Looking at commercial models, he found most of them sold for nearly \$50,000 and

required a larger tractor than his Deere 1023.

“I have used my tree spade to move trees up to 8 ft. tall. It works and handles well. I do add counterweight to my tractor when using the spade.”

Klassen is selling his tree spade for approx. \$6,100 (U.S.) with shipping additional. “It will fit in the bed of a half-ton pickup. We have dialed in some small changes in the past year. Right now, I am very happy with it,” says Klassen.

Contact: FARM SHOW Followup, Alvin Klassen, Crown Fabricating, Box 38 RR 1, Delisle, SK Canada S0L 0P0 (ph 306-493-7153; crownmetfab@gmail.com).

Removable Bucket “Shorty Forks”

“I have a Kubota B2301 utility tractor with a 50-in. bucket. I wanted to carry tree branches to a burn pile but couldn’t keep them in the bucket,” says Tom Mattiuz, St. Mary’s, Penn.

“I didn’t want to use standard pallet forks because they would damage the tractor if I picked up too much weight. So, I designed removable shorty forks made from 1 1/2-in. heavy-walled square tubing. There are three 12-in. tines that extend in front of the bucket and the forks attach with two friction eyebolts at each end. Works great.”

Contact: FARM SHOW Followup, Tom Mattiuz, 300 Ford Rd., St. Mary’s, Penn. 15857 (ph 814-335-0023; tomattiuz@zitomedia.net).



Mattiuz’s “shorty forks” use two friction eyebolts at each end to attach to the tractor bucket.

Monkey Face Offers New Tie-Down Option

If your trailer has stake pockets and you want the most secure way to tie down a load, you need to check out Mac’s Monkey Face. The bright blue mount with two big circles and a curved grin that resembles a monkey face handles any type of 2-in. strap hook or chain you have.

“It fits deep into the stake pocket and is secured with a cotter pin,” says Mike Brown, salesman for Mac’s Tie-Down Solutions.

Made in Idaho, the multi-mount is laser cut from .375-in. steel and welded to a .1875-in. thick steel tube. Both have a powder-coated finish, and the Monkey Face has been rated to 10,000-lb. minimum breaking strength.

With the different openings, it can accommodate a flat hook and two S-hooks or chains at the same time.

With the addition of Mac’s Low-Profile Lashing Winch (\$18), the “smile” on the Monkey Face allows the winch to swing 60-degrees to angle tie-down straps toward the cargo. The easy-to-use winch can be tensioned from either side with a 1 1/4-in. socket. Check out how the Monkey Face and winch work on a video on Mac’s website.

Sells for \$45.

Contact: FARM SHOW Followup, Mac’s Tie-Down Solutions, 469059 Hwy. 95 S., Sagle, Idaho 83860 (ph 800-666-1586; sales@macscustomtiedowns.com; www.macscustomtiedowns.com).



The Monkey Face fits into a 1 1/4 in. stake pocket and is secured with a cotter pin. The top plate can accommodate various hooks, straps or chains.

