

His Farmall H Has A New Face

Jason Barnett was loading scrap iron with his tractor and loader when some of the pieces fell onto the front of his Farmall H, denting the grill and part of the hood. Barnett says he thought about fixing the dents but that would've been difficult because the previous owner had welded the bolts that hold the grill on. Rather than drilling the bolts out to remove the grill, he decided to make a face on it.

Barnett cut out 3D teeth from scrap pieces of 18-gauge sheet steel, cut scalloped edges on another piece of scrap steel to form a mustache, and hammered circular sheet metal pieces for the eyes. He painted eyeballs on the two round pieces, painted black and white lines on the mustache to give it some character, and painted the teeth white. After tack welding those pieces to the grill, he stepped back to admire his handiwork.

"I was pleased with the initial results, but still not entirely satisfied, so I lowered the mustache to just above the top of the teeth.

"Now instead of being upset about the dented Farmall grill, I smile every time I see it, which is nearly every day because I use the tractor and loader to move cars, trucks,



Instead of repairing the crumpled grill on his damaged Farmall H, Barnett fabricated sheet metal pieces and turned it into a grinning tractor.

1940's to 1960's aircraft, and miscellaneous metal that I work on."

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Clay acts as a natural binder in sandy soils so Olesen created Liquid Natural Clay, which is applied to fields through normal irrigation, improving fertility.

Liquid Clay Adds Fertility To Sandy Soils

In an attempt to improve crop production in sandy soils - and even in the desert - Kristian P. Olesen, inventor and co-founder of Desert Control, researched the historically high fertility of the Nile delta. Despite being surrounded by arid lands and deserts, the Nile delta was known for reliable farming for thousands of years.

The Nile waters continuously carried minerals, nutrients, and clay particles from the East African drainage basin and slowly deposited them across the delta lands. This clay provided the soil with fertility and resilience, but during the mid-1960's, this changed as the newly constructed Aswan Dam began to block all clay and silt minerals.

Since clay acts as a natural binder in soils with high sand content, he created a product called Liquid Natural Clay (LNC).

"LNC is produced with mobile processing units as near to targeted fields as possible," says Ole Kristian Sivertsen, President and Group CEO of Desert Control. "As it's a liquid nearly as thin as water, it can be directly applied using traditional irrigation methods. Once applied to sandy ground, it percolates down and forms a binding soil structure absorbing and retaining water and nutrients like a sponge."

Sandy soil begins to behave more like clay soil in terms of soil hydraulic properties, even with very small amounts of clay added. That's due to the nano-processing of the minerals and natural materials in the LNC process.

"LNC only consists of natural materials," Sivertsen explains. "No chemicals or other agents are introduced to the compound. We

combine various clays and natural mineral materials to create a unique match with the sandy soil. Additionally, we have a patented nanotechnology process that extracts the clay structure to its fullest potential, reducing the amount of raw material required."

He adds the amount of clay required will vary based on the soil's state and unique properties combined with the depth of treatment desired. They typically recommend treating to a depth of 1/2-ft. below the crop's main root zone. After application, the LNC penetrates the ground taking approximately 7 hrs. for bindings to complete. Then it can be sown, and water and fertilizer levels reduced immediately.

Early results show water and fertilizer savings of up to 50 percent, crop yield increases of 17 to 62 percent, and a reduction in salinity.

The first U.S.-based application of LNC was done in collaboration with the University of Arizona in March/April 2022 at the Yuma Mesa Research Station with the Yuma County Cooperative Extension (U of A) as part of a 5-year study.

Desert Control has currently made LNC available for mainstream farming in the Middle East and expects it to be part of the U.S. farming industry by early 2023. They're conducting pilots and proof of concept implementations with selected Arizona growers and farmers.

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New Drinks Made From Whey

Armed with a food science degree, an MBA, 10 years of experience, and an entrepreneurial mindset, Oregon-based Emily Darchuk took the problem of what to do with unused whey and created Wheyward Spirit.

Wheyward Spirit starts as sweet whey, the type left over from cheese making. Every pound of cheese leaves nine pounds of whey. While the whey has many uses, about half of it goes unused. Darchuk found a way to reduce the waste and add new revenue for dairy farmers.

Darchuk uses a hand-crafted fermentation and custom distillation process to produce an 80-proof clear liquor. It's a naturally flavorful premium specialty spirit unlike anything else. The farm-to-flask spirit is a drink smooth enough to be savored straight and versatile enough to make a variety of cocktails.

Since starting in 2020, Wheyward Spirit has used nearly a million pounds of whey. Darchuk says, "We partner with dairy co-ops and cheese manufacturers throughout California to source high-quality whey."

Wheyward Spirit has an inspiring list of awards despite being so new to the scene. "We have won top spirit and environmental awards," says Darchuk. Among their achievements is a proud partnership with Ben & Jerry's to produce "Dublin Mudslide" ice cream. Wheyward Spirit is the first alcoholic beverage to be approved by the California Milk Board.

Even with all this fame, for now, the company relies on its website for direct-to-home sales as it builds nationwide retail distribution.

Across the country in Ithaca, N.Y., is another new beverage called Norwhey Nordic Seltzer. The seltzer's base is sour whey, more commonly called acid whey. Sour whey is the by-product of strained or centrifuged yogurts like Greek yogurt. New York is a major producer of many types of yogurts. Sour whey has much less protein than sweet whey and, although it's often used to fertilize fields, it has little other commercial value. Because of its makeup, sour whey can't be put into our waterways, making disposal costly.

Dr. Sam Alcaine is the entrepreneur



Wheyward Spirit and Norwhey Solar Citrus are two new beverages made from whey, which is a by-product of cheese and yogurt production.

behind Norwhey Nordic Seltzer. Alcaine is a Cornell University food science professor who took up the challenge to help solve the environmental problem of a harmful acidic liquid. He's part of a team of scientists around the country working on economical lactose and protein extraction methods and developing food products from sour whey.

Alcaine's seltzer solution helps reduce costs for dairy farmers while making a tasty and refreshing alcoholic drink containing electrolytes, vitamins, minerals and other nutrients.

Alcaine uses the natural enzyme lactase to break down the whey lactose into simpler sugars, which are then fermented by traditional methods. The "Nordic" theme comes from a historic Icelandic and Norwegian method of fermenting Scandinavian yogurt to make an alcoholic beverage.

Contact: FARM SHOW Followup, Norwhey Brewing, Finger Lakes, N.Y. (www.norwhey.com); or Wheyward Spirit, Eugene, Ore. (www.wheywardspirit.com).



Polaris Ranger XP Kinetic electric UTV has 110 hp. and 140 lbs. ft. of instant torque.

Electric UTV A First For Polaris

The new Polaris Ranger XP Kinetic electric side-by-side has an industry-leading 110 hp. and nearly 140 lbs. ft. of instant torque. Polaris says the Kinetic can tow up to 2,500 lbs. and haul a payload of 1,250 lbs.

The Kinetic has a range of up to 80 miles under normal conditions and its battery will provide up to 10 hrs. of run time before it needs recharging from a 120 or 240-volt system. The regenerative braking system also recharges when the vehicle is coasting.

It has a heavy-duty high travel suspension and 14 in. of ground clearance. The vehicle is backed by a 3-year electric powertrain warranty and a 5-year battery warranty. A Level 2 (240v) power supply is recommended

for the fastest charging from 0 percent to a full charge in about 5 hrs. The Kinetic is compatible with nearly all of the accessories in the Ranger XP line, including winches, a cab and storage options.

The Kinetic's scheduled maintenance costs are estimated to be 70 percent less than similar gas-powered vehicles. That combined with not having to purchase gas means an estimated savings of about \$3,500 compared to a gasoline-powered UTV over a 5-year life span. The suggested MSRP starts at \$24,999.

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