By building this simple auger hitch, Lyle Ehrman is able to use his 22 hp Deere 445 garden tractor as a handy auger mover.

Garden Tractor Auger Mover

A simple, homemade auger hitch extension lets Lyle Ehrman of Leader, Sask. use his 22-hp 445 Deere garden tractor as a handy auger mover.

"A lot of people tell me that self-propelled auger movers are one of their best investments, but I think it's hard to justify the expense. This is my alternative solution," he says. "The hitch only took me about four hours to make using scrap metal I already had."

Ehrman's garden tractor had a 3-pt. hitch so his auger mover hooks on quickly to move his 8-in. by 45-ft. auger, complete with grain hopper, without having to clean everything out.

Ehrman took a flat piece of 6-in. by 7-ft. by 1/2-in. thick metal, and bent it at about a 45 degree angle. A 3-ft. section at one end mounts to the underside of the auger and hopper (parallel to the auger). The end that protrudes up from under the hopper has a hole drilled in the end, which is bent at an angle away from the hopper.

The metal tongue is secured to the auger by a metal band that wraps around the auger, and holds the hopper and the piece of metal together.

On the tractor, Ehrman made a simple drawbar with a fixed pin that allows him to easily hook onto the auger hitch.

"It works really well and saved me a lot of money," he says. "The only downside is that I use this auger only at harvest time because the hopper is bolted on and it's inconvenient to remove it so the auger can be placed in the bin."

A 7-ft. long metal bar attaches to underside of auger and angles out at the bottom end to hook to tractor.

Ehrman also made hitch on tractor. Auger hitch fits over fixed pin on drawbar.

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New flower variety resembles a geranium in terms of flower shape and size, but has a wider palette of colors.

Longer-Living Flower Developed

Cut flowers in a vase tend to wither and wilt rather quickly. But thanks to Penn. State University researchers, a newly developed variety maintains good condition for up to two weeks.

These newcomers to the horticultural world also produce many more flowers over an extended period of time than other varieties in their class.

The variety has been named "Elegance Silver." It resembles a geranium in terms of flower shape and size, but has a wider palette of colors than the geranium, more symmetry of petals, and highly serrated leaves.

Elegance Silver was developed by Dr. Richard Craig, professor emeritus, Department of Horticulture at Penn. State, after almost 30 years of plant breeding.

Elegance Silver maintains its vitality after being cut because it's less sensitive to ethylene compared to other regals, according to Dr. Hye-Ji Kim, who conducted physiological research on the new variety.

The University has applied for a plant patent for Elegance Silver and additional protection is being sought internationally. Oglevee Ltd. of Connellsville, Penn., has been licensed to produce the new variety and the first commercially available plants will reach greenhouses next spring.

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Jeff Craig built a trencher for his skid steer loader, starting with an old trencher chain he found in the dumpster at a Bobcat dealer.

Big Trencher For A Little Bobcat

Retired California engineer Jeff Craig needed a trencher for his skid steer, but he knew the auxiliary hydraulics on the Bobcat 543 were too small to power one. When he spotted an old trencher chain in the dumpster at a Bobcat dealer, he decided to build his own.

"The chain was rusty and beat up, but I salvaged about 3/4 of it," says Craig. "I spent about $100 on new teeth and repaired a couple of links."

He then spent several weeks designing a way to power the chain. He borrowed a 12 hp engine from a Troy-Bilt chipper. Its four-bolt engine mount made it easy to remove and install. He can put it back to the chipper, if needed.

When it came time for welding and assembly, Craig invited his dad William to fly out from Indiana. "We bought two big block bearings and all the hydraulics, but made the rest," says William, an experienced welder. "Jeff has all the lathes and equipment we needed."

The 4-ft. by 16-in. frame was made with 3/16-in. thick, 2-in. by 4-in. steel tubing overwelded and ground down flat. Quick-tach arms and pins were mounted to one side, and a piece of 6-in. channel iron was welded across the upper corner of the other side to mount the Troy-Bilt engine.

"We mounted the trencher to one side of the frame so I can get close to buildings and fences with it," says Jeff.

The biggest challenge was to gear the high-speed motor down for the relatively slow speed trencher. Using a software program, Jeff came up with a ratio of pulleys and sprockets that reduced the speed by 10:1 twice over.

"A 2 1/2-in. double pulley on the motor drives a 12-in. pulley on a jack shaft," he explains. "On the end of the jack shaft is a 2 1/2-in. sprocket that drives a 12-in. sprocket on the trencher. The trencher runs at about 1/100 of the motor speed."

A double bearing on a spring over-center clutch mounted on the motor controls the belt drive. A 6-ft. arm extension on the bearing allows Jeff to engage the belt drive from his seat on the skid steer.

The trencher arm is hinged to the bottom of the frame. A hydraulic cylinder powered by the Bobcat auxiliary hydraulic outlet is mounted to the top of the frame. The cylinder connects to a bar that is attached and perpendicular to the trencher arm.

"If I am cutting a trench in a straight line, I just lower the Bobcat arm assembly to the ground and let it dig in," explains Jeff. "If I extend the cylinder, it forces the trencher perpendicular to the ground and I can cut sharp curves."

Regardless of straight line or sharp curves, one thing that Jeff doesn't do is change the pitch of the frame. "I always try to keep the motor level to keep the oil circulating," he says.

William says the trencher is easy to control from the seat of the Bobcat. "Just sit there and back up when it gets as deep as you want it," he says.

The trencher has a depth capacity of about 40 in. and a width of about 5 in., adjustable up to about 8 in.

"I spent a total of about $250 on parts for the trencher, not counting the round trip ticket to get my dad out here from Indiana," says Jeff.

So far the home-built trencher has fared well. Jeff used it to put in a sprinkler system around his home. The green belt it creates, along with other fire prevention tactics, protect his home from notorious California brush fires and lower his insurance premiums.

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A 12 hp engine borrowed from a Troy-Bilt chipper is used to power the chain.