

“Made-It-Myself” Brush Grapple

Picking up logs, brush and downed tree limbs is an easy job for Joseph Baril since he built a brush grapple for the front-end loader on his Kubota 24 tractor.

He used flat steel to build the grapple and bolted it to the 4-ft. 2-in. wide bucket on the tractor.

“I saved a lot of money and it’s built heavy to stand up to a lot of tough use,” says Baril. “It’s big enough to pick up large quantities of brush and wood, yet is lightweight enough for my 24-hp. tractor.”

The grapple fork has nine 2-ft. long curved shanks spaced about 6 in. apart. Each shank measures 2-in. wide by 1/4-in. thick. The grapple fork swivels up and down on a long shaft that’s connected to 1-in. thick bolts, which go through heavy steel brackets that bolt onto both sides of the bucket. A pair of hydraulic cylinders are used to raise and lower the entire unit.

The grapples are made from 2-in. wide

by 1/4-in. thick flat steel, cut and welded together at an angle. They’re welded to a rectangular frame made of 4-in. high steel for reinforcement. “The frame gives the grapple forks strength so they won’t bend under pressure,” says Baril.

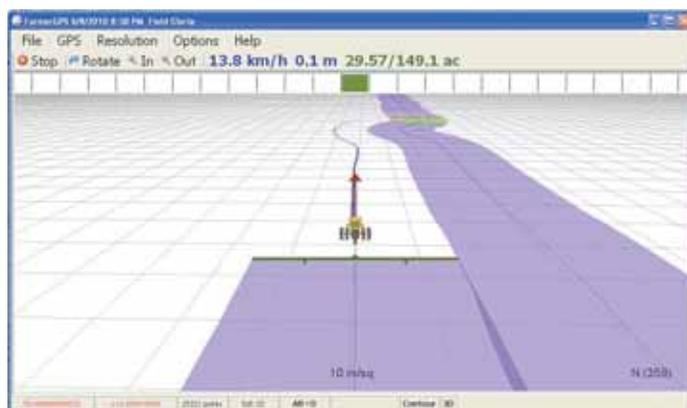
A pair of old truck springs cut down to about 2 ft. serve as forks, and are bolted to the bucket’s floor. The forks extend forward about 12 in.

“I use it to handle everything from brush to big logs that I remove from my woods. I’m amazed at how well it works,” says Baril. “I never have to get off the tractor at all. I just scoop the branches with the forks to line them up, clamp down on them and move them wherever I want to. The shanks open up about 7 ft. high so I can pick up really big loads.”

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Home-built brush grapple fork has nine 2-ft. long curved shanks spaced 6 in. apart and swivels up and down on a long shaft. “I use it to handle everything from brush to big logs,” says Joseph Baril.



Alberta farmer Johannes Heupel says his simple FarmerGPS system uses on-screen mapping that shows exactly where you’ve sprayed, eliminating spray skips.

Simple GPS System Created By Grain Farmer

“I looked into GPS guidance back in 2005 when the first light bar systems showed up on the market,” says Alberta farmer Johannes Heupel. “We have a lot of bush, sloughs and rolling hills, so those systems didn’t work. I developed a simple VB application myself using my Garmin hunting GPS, and that was just marginally better. A year later I developed another system that worked much better, and I’ve improved it every year since, even adding autosteer in 2014.”

Today Heupel’s system, which he markets to customers around the world, is called FarmerGPS. It uses proprietary software, a standard PC laptop or tablet with the Windows operating system, a 12V/110V converter to power the laptop, a Novatel GPS receiver, interface hardware, cabling, mounting hardware and the FarmerGPS software. Those 7 components cost about \$1,800 to \$2,000, far less than other systems which cost thousands more. He sells his software alone for \$399.

“It’s an easy system to install and set up,” says Jim Walsh, a North Dakota farmer who runs a FarmerGPS system. “My 76-year-old dad can’t see the watch on his arm, but he can easily run the sprayer because of the 14-in. laptop screen,” Walsh says. Iowa farmer Joe Bahe says the FarmerGPS system eliminated spray skips for him because the on-screen mapping showed exactly where he had sprayed. “It was so simple I set everything up in less than a day, and on the second day I showed my dad how to run it in 2 minutes, with no problems,” Bahe says.

In addition to his Alberta grain farm, Heupel is a trained electrical engineer and computer programmer who built his first computer in 1983. Those combined skills produced his efficient and low-cost guidance system. “The beauty of the FarmerGPS system is that it does all the things that more expensive name brand products do at a much lower price on standard hardware,” says Heupel. FarmerGPS reduces overlap on tillage, planting and spraying, and also minimizes gaps. The mapping system verifies field coverage on the computer screen and through printable reports. It also marks areas or points in a field where weeds might be a problem, or rocks need to be picked.

“I have customers around the world, and the system keeps growing in functionality,” says Heupel, who adds new features during the winter months when he’s less busy with farming. In 2013 he added FreePilot autosteer, and in 2014 he worked on Bluetooth, networking and yield/moisture integration for Claas Lexion combines.

Heupel says accuracy depends entirely on the GPS receiver used, with Waas-type receivers providing 6-in. pass-to-pass. Some customers use RTK with 1 to 2-in. accuracy. In 2013 he used planting maps from the system in his Claas Lexion combine so he could tell where two types of wheat were seeded in the same field. That feature allowed him to differentiate the harvest and keep varieties separate. In the winter of 2014 he tested the autosteer on the same combine and called it very successful. He hopes to market



Kurt Cook converted a silage blower into this heavy-duty leaf blower, equipping it with rollers off an old set of reel mowers on front and back so it rolls over uneven ground.

Heavy-Duty Leaf Blower

“I live in the middle of a woodlot and have about 7 acres of lawn to maintain. I wanted to use a blower to clean off the leaves but didn’t want to spend a lot of money. So I converted a silage blower. It’ll blow leaves up to 30 ft.,” says Kurt Cook, Youngstown, N.Y.

He bought the silage blower from a neighbor for \$25. He cut off the tongue, wheels and the blower’s conveyor/auger, and fitted it with a 3-pt. hookup.

The blower was equipped with a movable band on the blower housing which he rotated downward 90 degrees to one side. He rebuilt the blower frame to accommodate the low spout position, adding a deflector that forces air down to the ground to dislodge wet leaves. He wasn’t getting enough air into the blower, so he used a hole saw to cut a series of 2 1/2-in. dia. holes into the blower’s front and back sides. Expanded metal guards cover the holes for safety.

The blower originally had a hole on the back at the bottom for silage intake. He

unbolted the backside of the blower and rotated it to move the hole to the top. Then he closed up the hole by covering it with a section of sheet metal.

“It turned out to be a big project but it really does the job,” says Cook. “I use my Kubota 35 hp. tractor to power it. I blow the leaves to the edge of my woodlot where they stay put. I go pretty slowly, about 2 mph, and run it at an engine speed of 1,700 to 1,800 rpm’s, which comes out to a pto speed of about 300 rpm’s. It’ll easily blow leaves as well as small branches. I mounted the rollers off an old set of reel mowers on front and back so it rolls over uneven ground. I can adjust the roller up or down by changing the position of a pair of bolts.

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that variation in time for the 2014 harvest.

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780 990-4052; farmergps@hotmail.com). You can download the software at www.farmergps.com for a free trial.