"Made-It-Myself" Grapple Fork

Hugh Baxter built a grapple fork for the loader bucket on his Kubota tractor to handle big bales. "The bucket worked fine to carry bales, but I had to tie them on with a rope, which got old in a hurry," Baxter says. "Rather than buy an expensive new bucket and grapple, I decided to make a grapple myself."

His homemade setup has four teeth made from 1-in. galvanized water pipes. They're secured with cross bracing and mounted to a 3-in. rockshaft fitted to the top of his dirt bucket. The teeth are reinforced and held in alignment with metal grating and bracing near the top of the bucket. He had previously welded sheet steel to the sides of the bucket for added reinforcement and to double the capacity for moving wood chips and sawdust for his cattle and meat-bird chickens. Baxter operates the forks with an 8-in. stroke hydraulic cylinder mounted to the back of the bucket.

"With this setup I can pick up 4-ft. bales on the round or the flat side and stack them 3 high," Baxter says. "My loader can lift up to 1,000 lbs. For safety I leave my rotovator



Grapple fork has 4 teeth made from 1-in. galvanized water pipe, which mount on a rockshaft attached to top of loader bucket.

hooked to the 3-pt. hitch for counterweight."

Baxter replaced the loader's dual control valve set with a triple control so he can raise and lower the lift arms, tilt the bucket and operate the grapple at the same time.

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Legvold installed 2 Meyer salt spreaders on his 12-row side-dress toolbar. "It lets us plant cover crops while applying 28 percent nitrogen at the same time," he says.

They Plant Cover Crops While Fertilizing Fields

By Lorn Manthey, Contributing Editor

Minnesota farmer Mark Legvold built a cover crop seeder onto his side-dress toolbar to accomplish 2 jobs on 1 pass across his corn fields. "The toolbar with seeder is a simple and fairly light 30-ft. wide machine that we can run at 7 to 8 mph in corn at the V3 to V8 growth stages," says Dave Legvold, Mark's father. "We use it for seeding ryegrass, radishes, rapeseed and other cover crop seed while applying 28 percent nitrogen."

Mark built the rig by installing two Meyer salt spreaders on his 12-row toolbar. They're positioned just inside the hydraulic cylinders that raise the 3 wing rows on each side. Says Dave, "for an investment of just over \$2,300, we've got an efficient way to put down cover crop seed without making a special trip across the field."

After gating down the factory set application rate, the spreaders put out about 15 lbs. of seed an acre. Power comes from an electric motor that Mark controls in the cab. Each unit has on/off switch, speed control and a provision to 'gate down' the amount of material being spread so he doesn't over broadcast and can switch material off while he turns around on the headlands. The tubs hold about 300 lbs. each, which Mark says is enough so they only have to refill the spreaders every other time they re-supply fertilizer in the 200-gal. liquid saddle tanks mounted on the tractor.

The Legvolds say it took a fair amount of trial and error to get the spreaders calibrated, and now that they're working well, seedling distribution and emergence is very good. After using the setup for 2 years they've learned that seed planted in east/west rows emerges

better than that planted in north/south rows. They think it's a matter of sunlight penetrating through the corn leaves and warming the soil throughout the day. They also know that a nice rain after seeding helps germination, and that clover seed doesn't do well in shady cornfields regardless of which way the rows are running. Last year they experimented with a more shade-tolerant seed mix with good results.

Always interested in testing the effectiveness of their new ideas, the Legvolds had the county soil conservation service run a comparison on seed emergence with their machine broadcasting compared to another unit that placed seed between corn rows. "There wasn't any difference in the cover crop emergence, but the other applicator damaged corn because the tractor wasn't equipped with guidance," Dave says. "That damage, plus the cost of making an extra trip across the field validated what we're doing."

The Legvolds have also seeded cover crops in standing soybeans using aerial application and have drilled seed after harvest with their no-till drill. "Cover crops are extremely helpful in preventing soil erosion, stabilizing the soil, helping control weeds in the spring and building an in-ground root system that aids nutrient uptake for the corn and beans," Mark and Dave say. "We'll continue with this system because it's good conservation that has long term benefits."

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mounts on tractor 3-pt. and uses an attached hydraulic cylinder to move rake back and forth.

Sliding hitch

"Slide Hitch" For Hay Equipment

After buying an older side delivery rake that didn't track correctly behind his tractor, leaving swathed hay that required an extra trip across the field, Canadian farmer Hugh Baxter made a sliding hitch that solved the problem.

He bought a used grader cutting edge from a scrap metal dealer, then fabricated brackets for mounting it to fit the 3-pt. hitch on his tractor. He attached the stationary end of an 18-in. stroke hydraulic cylinder to one end of the cutting edge and connected the rod end to a hitch bracket that would slide

along the cutting edge.

Baxter says "When the rake is hooked to the movable hitch I can activate the cylinder and move the rake tongue from one side to the other and overcome any side draft. The rake tracks exactly where I want it to, and now I don't have to make extra trips across the field."

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"Made It Myself" All-Hydraulic Mower

"I built a riding mower over a period of years because I couldn't find a commercial mower that had what I wanted," says Ed Klepeis, Paducah. Kv.

"It's powered by a Chevy Geo 3-cyl. 1.0 liter gas engine that belt-drives hydraulic pumps. The pumps drive the hydrostatic transmission as well as the 60-in. deck and vacuum system. It's equipped with wide tires to get through mud and minimize lawn damage.

"All components are new and heavy-duty. The hydraulic tanks are made from aluminum and it's fitted with lights. I worked with a hydraulic engineer to get everything right. Unfortunately, he died before we were able to finish it. Everything works and operates, but not to peak performance because something isn't quite hooked up right.

"I think this will be an amazing mower, but it needs more engineering and I can't justify hiring the help I need. So I'd like to sell it to someone who has the knowledge to finish it.



All-hydraulic mower is powered by a Chevy Geo 3-cyl. gas engine that belt-drives hydraulic pumps.

Contact me and I can explain what I've got in more detail."

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Double-Hinged Gate Opens From Either End

"This double-hinged gate makes directing livestock where you want them to go an easier job," says E.J. Zook, CK Mfg., Lancaster, Pa. "For example, if the gate leads to 2 different alleys going in opposite directions, you can easily swing the gate open toward either

Both sides of the gate are equipped with a long vertical metal hinge with a movable bar attached to it. The bar moves up or down by turning a handle mounted on the gate. "Turning the handle one way causes the bolt to poke up through a hole in a U-shaped metal bracket mounted on the gate post, which latches the gate shut," says E.J.

The gate can be made anywhere from 4 to 16 ft. wide.

Prices range from \$394 for a 48-in. high by 4-ft. wide gate to \$655 for a 16-ft. model.



Both sides of gate are equipped with hinges that open by turning a handle.

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