



McKee's attachment lays down irrigation tubing under a layer of plastic.

Plastic Mulch Machine

Tom McKee produces fruits and vegetables on his farm in Ramsey, Ill. "Over the years I've made a lot of specialized machines to fit this business," he says. His most recent creation is a tractor attachment that lays down irrigation tubing with plastic sheeting over the top, held in place with dirt.

Rubber wheels roll out the plastic on top of the irrigation tubing. Discs on each side throw dirt onto the sides of the plastic.

To plant, McKee simply punches holes in

the plastic. The black plastic keeps the topsoil warm in the fall and early spring but also stops evaporation during hot weather.

The frame is made out of square, metal tubing. The discs are from an old planter and the rubber wheels are corn planter press wheels.

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"In the past we used commercial machines for laying tree fabric, but we needed something heavier to plant into prairie sod," says Larry Miller.

Tree-Planting Machine Built For Tough Prairie Sod

Before he passed away suddenly in August, Roger W. Bennett of Pierre, S. Dak., sent in a story idea to FARM SHOW - a custom designed, 3-pt. mounted tree fabric laying machine that he helped build. Bennett worked for the South Dakota State Department of Game, Fish and Parks, where the staff is involved chiefly in wildlife habitat management.

"Roger worked for us and was a good machinist and really good with a welder. He was skilled at what he did, and his passing was a great loss," says Larry Miller, who was the facility's Conservation Foreman, was Roger's boss. "We had used commercial machines for laying tree fabric in the past, but found we needed something heavier for our prairie sod conditions. It was also cheaper if we could build our own. Roger was an excellent machinist and welder."

Instead of using plow sweeps to cover the edges of the plastic, like on other machines, they custom manufactured their own, making them heavier and stronger. The whole unit has heavier bracing as well, especially on the stress points such as the corners and front end.

Workers start by preparing a site the fall before, chiseling and tilling strips of soil, with a strip of grass sod left between the rows to discourage weed competition. In the spring, they plant dormant, commercial grade root stock trees from a nursery, 3 to 10 ft. apart, depending on the species. Each row is 10 ft. apart (on center). Once the trees are in the ground, they make another pass with the fabric-laying machine, which rolls out a six-foot wide strip of woven poly fabric. An operator sitting on the machine manually cuts slits in the fabric for the trees to go through, and the machine cuts and rolls a strip of dirt/sod mixture onto either side of the fabric, to hold it down. Eight-inch staples are also applied manually, to secure the fabric to the ground.

"The sod gives a lot more resistance than black dirt, so our method of fabric laying takes extra strength," Miller explains, adding that the fabric they use decomposes after 10 years.

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Transplant Seedlings Using A Cordless Drill

Here's an easy way to transplant tree seedlings, tomatoes, potatoes, peppers, bulbs, or any small plant using a standard cordless drill.

The E-Z planter auger consists of two components: a 2-ft. long metal rod with auger flighting at one end that's powered by the drill, and a plastic basket attached to another metal rod with a handle at the top. The basket has a 3-in. dia. hole at the bottom, surrounded by a metal cone. A marker can be slid anywhere along the rod to indicate hole depth.

To plant a seedling you place the basket on the ground, then insert the auger through the cone and dig the hole. As the auger rotates, soil flows up into the basket. When you're done digging you place the seedling through the cone and into the hole. When you pull the basket up off the ground, the dirt inside it flows back into the hole.

"It catches the dirt as you dig the hole and then puts it back once the seedling is in place. The only time you have to bend over is to put the seedling in place," says inventor Gordon Lea.

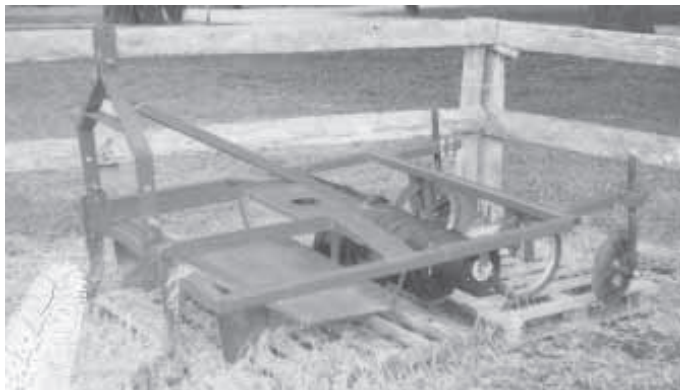
Lea also offers a soil sampler that lets you take soil samples from a standing position. It makes use of the same auger and has a control rod added to it that's used to hold



E-Z planter catches the dirt as you dig hole, then puts it back once the seedling is in place.

the basket in place.

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Roy Ream saved thousands by building a mulching machine that also forms beds.

Home-Built Machine Beds And Mulches

Instead of spending \$3,000 or so to buy equipment that would build a planting bed and mulch it with plastic in a single pass, Roy Ream decided to build one himself.

With a little ingenuity, some steel, and a used Bushhog mower, Ream built a machine for about \$250 that beds and mulches. What's more, by pulling two pins, the bedder can be used by itself.

Ream started out with the top deck of an old Bushhog for a working frame. He cut the back end off, cleaned the steel off and put a couple of coats of Rustoleum on it. The deck of the bedder is 1/4-in. thick steel, 5 ft. wide and 4 ft. long.

Wing plates along with a bend in the deck, form the bed. The wings weld to moveable plates that mount to the upturned portion of the bedder. They can be adjusted to form beds from 3 1/2 ft. to 6 in. wide.

The wings extend 6 in. below the bedder deck at a 45 degree angle. This ensures that as they gather the soil to form the bed, they also round off the sides. Vertical bed sides would collapse, explains Ream.

The frame itself is, for the most part, made of 1/4-in. thick by 2-in. steel tubing. Two scarifier teeth mount on the sides of the 3-pt.

hitch to work up the soil behind the tractor wheels to provide loose soil for the mulcher.

The mulcher consists of another framework of steel tubing, also 5 ft. wide. The roll of plastic mulch is suspended beneath the side bars of the mulcher frame while two hard rubber cart tires attach to the rear cross piece of the frame. As the plastic unrolls over a bed, the wheels press down on the edges of the plastic at the side of the bed.

"Garden cart wheels work the best," says Ream. "The bigger the diameter of the wheel, the better they work."

The sides of the mulcher frame extend beyond the crosspiece and the wheels serve as mounts for two adjustable 16-in. discs. The discs are angled to gather loose dirt and throw it over the edges of the plastic securing it in place over the bed.

A small piece of pipe in the tubing frame of the mulcher slides into the frame of the bedder. Pins connect the two pieces, making it easy to remove the mulcher when only bedding is needed.

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