Portable Firewood-Cutting Rack

"After cutting firewood for years on a sawhorse, I decided to build this portable firewood rack. It makes cutting firewood a much easier job," says John Dougoveto of Iron Mountain, Mich.

He started with two lengths of 2 1/2-in. wide flat steel and bent the ends upward to serve as skids. On top he welded some 4-in. channel iron the full length of the skids. He welded on metal cross pieces every 20 in. Then he used 2 1/2-in. angle iron to make five H-shaped supports. Each support is 44 in. high and has a cross piece welded onto it 14 in. from the bottom.

"I spaced the H-shaped cross pieces 20 in. apart because that's the length I cut my firewood. I skid logs to the wood rack and load it full right to the top. I stretch a bungee cord tightly over the top to keep the logs from 'jumping' as I cut. Then I saw down between each upright, which results in a quick pile of 20-in. firewood.

"When loading the wood rack, I put the butt ends of the logs out 30 in. beyond the uprights so I can get one 20-in. piece off the end before I start cutting between the uprights. It takes a powerful saw to cut through the pile as the logs will shift and often pinch as I cut through the top ones. The bar has to be long enough to cut the full width of the uprights. I use a Stihl 044 with a 24-in. bar and with a sharp chain it's more than adequate.

Firewood-cutting rack is fitted with H-shaped uprights spaced 20 in. apart.

"I have a road all the way around my property and two diagonal roads that cross it. I can drag the wood rack anywhere along my roads, skid the pole length wood to the rack, and cut a rack of firewood in only minutes. It takes much more time to fill the rack and to put the cut wood on my truck than it does to cut the wood. Two racks of wood is more than enough to fill my pickup bed."

Contact: FARM SHOW Followup, John P. Dougoveto, W8803 Lansford Dr., Iron Mountain, Mich. 49801 (ph 906 774-4526).

To build his 4-wheeler log skidder, John Dougoveto started with the 36-in. wide axle off a motorcycle sidecar.

4-Wheeler Log Skidder

"I heat my house with firewood off my own property. I used to cut the wood in 20-in. lengths and carry it out by hand, or skid the logs out using a 4-wheeler and a chain. Then I decided to build a log skidder for my 4-wheeler that has made the job a lot easier," says John Dougoveto of Iron Mountain, Mich.

He started with the 36-in. wide axle off a motorcycle sidecar and welded a length of 2 1/2-in. angle iron onto it. Using square tubing, he welded a tongue onto the angle iron. Then he welded a V-shaped log holder on top.

"It really works good. I cut the logs into whatever lengths I can handle, then drive up to them with the 4-wheeler and log skidder and place the butt ends onto the V-shaped log holder. Then I secure the logs on by wrapping a chain around the tongue and the butt end of the logs. I use a load binder to cinch everything tight so the logs don't slide off. It's simple but it works."

Using sq. tubing he welded a tongue onto the angle iron, then welded a V-shaped log holder on top.

Contact: FARM SHOW Followup, John P. Dougoveto, W8803 Lansford Dr., Iron Mountain, Mich. 49801 (ph 906 774-4526).

Off-Grid Automatic Greenhouse Ventilation

If you've got an off-grid greenhouse in a remote location, you can still set up automatic ventilation with a system from Advancing Alternatives in Schuylkill Haven, Penn. The kit includes solar panels, batteries, controllers and a converter to operate roll-up sidewalls. Customers use 24-volt motors to open and close roll-up curtains to maintain a desired operating temperature inside the greenhouse.

"We developed solar to work with low voltage motors as the solar controllers and battery backup require that no more than 24-volt power be used," says company representative Kathy Hubble.

Automating the curtains saves labor costs for large operations that would otherwise hire people to manually raise and lower the curtains. Allowing greenhouses to use natural ventilation also benefits plants. Air flowing through moves leaves, which creates shorter internode spacing for superior branching. That makes the plants tougher and more immune to diseases and insects.

A typical kit sells for around $4,000 and includes a 3 by 4-ft. solar panel, solar charge controller, 12 to 24-volt converter, staged curtain controller, and 5-day backup AGM sealed battery allows a low voltage motor (sold separately) to raise and lower up to a 300-ft. long, 8-ft. tall curtain.

Advancing Alternatives and their dealers also work with customers to put together parts to retrofit existing curtain systems.

"The one thing that makes these unique is that we're geared to the greenhouse industry," Hubble says. "We use motors that are meant to last several years. It's a growing and new industry, so we're constantly making changes and updating our systems and programs."

Solar-powered system uses 24-volt motors to open and close roll-up sidewalls, maintaining the desired operating temperature inside greenhouse.

Contact: FARM SHOW Followup, Advancing Alternatives, 717 Schuylkill Mountain Rd., Schuylkill Haven, Penn. 17972 (ph 877 546-2257; www.advancingalternatives.com).

Customized Fodder Systems Reduce Cost Of Feed

FarmTek can help you build your own Fodder-Pro Feed System. You can start small and add on as needed, or go big to begin with.

"We've seen huge growth in the past two years," says Abigail Tobey, fodder specialist, FarmTek. "Nearly one out of five who call end up buying. Some who called in 2011, but said they thought the drought was over, called back this year and placed orders."

FarmTek offers a turnkey 56-in. wide by 120-in. long 6-ft. tall, 125 lbs. per day Mini System. Full-size units produce 250 lbs. of fodder per day in 10-ft. tall units. FarmTek also sells individual components.

"You can go to our website and download plans, including specifications and reference materials," says Tobey. "We offer custom designs for everything from a small unit to feed a single animal to large systems for 250-cow dairies."

FarmTek has even supplied zoos with units for Galapagos tortoise and highland gorillas. One unit was sized for a horse unable to eat hay. A 250-cow dairy replaced 300 acres of cropland with a single greenhouse filled with Fodder-Pro Systems. Feed costs dropped from $7 to $10 per day to $3.82, while production and health improved. Tobey says the dairy is now retrofitting and expanding their fodder production system.

FarmTek has modified their system since first introducing it, making expansion easier. Initially it recycled water, which required a pump and tanks. The newer system is single use with water coming in one end and out the other. Water flows underneath the seed rather than sprinkling over the fodder as some other systems do.

"The new design lets us connect up to 30 full-size systems to a single 1-in. waterline," says Tobey. "That would produce 7,500 lbs. of fodder per day."

The new design is one element of a multi-part effort to reduce potential mold or mildew developing in the fodder.

"We advise dipping seed in a 10 percent bleach or hydrogen peroxide solution for 10 to 15 min., followed by soaking it in clean water for 24 hours," says Tobey. "From that point on, everything that the seed touches should have been wiped down with the bleach solution. That includes the trays and scoops to handle the seed."

Tobey recommends people handling the seed or sprouting fodder sterilize their hands or wear sterilized latex gloves to keep body oils and germs out of the system. FarmTek also recommends fans in the fodder production area.

Fodder-Pro system lets you grow your own nutrient-rich fodder while minimizing feed costs. Photo at right shows seeds at top and fully grown fodder at bottom.

"Moving air doesn't pick up moisture, so humidity levels stay lower, lowering the chance of mold," says Tobey. "The water leaving the system can be used for livestock or irrigation, though it can take livestock a day or two to get used to it. It has a small amount of protein in it from the seed hulls, especially if barley is being sprouted."

Almost any seed can be sprouted, but Tobey recommends different seeds for different animals.

To determine what size system is needed, FarmTek suggests multiplying total animal body weight by 2 percent. A full-size unit would provide fodder for up to eight 1,400-lb. animals, 60 200-lb. animals or up to 2,500 poultry. They're priced at $4,695 with price breaks for multiple orders. Buy 8 systems at once, and the price is $3,591 each. Mini systems start at $2,299 and drop to $2,795 in quantities of four or more.

To learn more about growing fodder with the FarmTek systems, visit FarmTek's website for video tutorials.

Contact: FARM SHOW Followup, FarmTek, 1440 Field of Dreams Way, Dyersville, Iowa 52040 (ph 563 875-2288; toll free 800 327-6835; www.farmtek.com).