Photo shows "wide switch" kit that mounts on back of haybine. Six 15-in. long fins deflect hay out to both sides.

"Reverser" Kit For Pull-Type Haybines

"It lets you unplug a haybine header from your tractor cab without having to shut the tractor pto off," says Kyle Sueltz, who came up with an easy way to reverse the flow on New Holland 1475 and 7150 pull-type haybines.

The kit consists of a reversing valve that installs between the hydraulic pump and motor, mounting bracket, hoses and wiring harness.

"When you hold down a switch the header automatically slows down, stops, and reverses direction to clear the plug. Releasing the switch causes the header to slow down, stop, and return to the forward direction," says Sueltz.

The kit sells for $1,500 plus S&H and takes about 90 min. to install. A kit for MacDon haybines will soon be available.

Sueltz also came up with a "wide swath" kit for the same New Holland haybines that lets you lay the swath out up to 13 ft. wide for faster, more even drying.

"It reduces hay drying time by 1 to 2 days and also improves the hay's feed value," says Sueltz. "With a 16-ft. haybine you're normally laying out a swath that's 4 to 6 ft. wide. But when you expand the swath to 13 ft. wide, you spread the hay out much thinner so it dries faster, which results in better quality."

The kit consists of a new swath board and six 15-in. long, 1/8-in. thick steel fins that bolt onto the swathboard, just above the conditioner rolls. The fins mount at an angle to deflect hay toward the side and can be easily adjusted to vary the swath width.

The wide swath kit sells for $960 plus S&H.

Wide swath kits are also available for New Holland discbines and sell for $150 plus S&H.

Contact: FARM SHOW Followup, Kyle Sueltz, 39605 120th St., Columbia, S. Dak. 57433 (ph 605 396-7418; ksueltz79@hotmail.com).

Galvanized chicken wire fence is buried 6 in. deep in ground to keep digging animals out. Mulch keeps weeds down and eliminates the need to get close with a mower.

Varmint-Proof "Dug-In" Garden Fence

Rex Gogerty recently sent us photos of the varmint-proof garden fence he and his sons put up. The 4-ft. high fence is buried 6 in. deep in the ground. There's a layer of mulch on both sides of the fence, which smothers weeds and eliminates the need to get close with a mower.

The fence is adjacent to a barn that forms one side of the garden, which is about 50 ft. long by 40 ft. wide. The fence is made from galvanized chicken wire with openings that get smaller toward the bottom.

To install the fence they used a rototiller to dig up the soil, then used a spade to scoop out a trench about 6 in. deep. The fence posts are spaced about 12 ft. apart.

"It's a more permanent approach than using an electric fence. We already had the posts and spent about $60 for the fence. We also installed a gate made from hog panel fence," says Gogerty.

"My boys and I came up with the idea because we were having trouble with varmints and digging animals such as moles. Digging the fence into the ground a few inches solved the problem. It also discourages dogs and skunks. So far, no deer have jumped over it, but if deer ever became a problem, we could add an electric wire across the top. Also, in the past we've had cattle get out and trample the garden. This fence should keep them out."

Contact: FARM SHOW Followup, Rex Gogerty, 3475 K Ave., Hubbard, Iowa 50122 (ph 641 487-7617).

Attic Fan Reduces AC Use

With an investment of a little labor, parts on hand, and about $15, David Heeg of Owosso, Mich., figured out a way to cut back on air conditioner use.

He built an attic fan from an old furnace blower and connected it with a collar to 5 ft. of flexible 12-in. ducting connected to another collar mounted on a wooden access door to the attic. He used 12-ga. electric wire on a 20-amp circuit with a light switch on the access door to turn the fan on and off.

Heeg explains that he doesn't use the fan all the time. During heat waves when temperatures stay high overnight, the Heegs use air conditioning. But when temperatures drop at night, they turn the AC off, open their home's windows and turn on the attic fan. It pulls cool air from the outside through the house and attic and out the roof vents. In the morning, they shut off the fan and close the windows to maintain the house's cooler temperature.

"The blower uses a lot less electricity than the air conditioner," Heeg says.

He got the idea when living in another home. They would open the lower floor windows and put a fan in an upstairs window facing outdoors so it pulled hot air out of the home.

"It's important to have enough roof vents to take out the hot air," Heeg emphasizes. When he reshingled recently he installed a large, 14-in. diameter vent with a thermostatically controlled fan that blows out excess heat when the attic reaches a certain temperature. He also has smaller roof vents. Good ventilation also lengthens the life of shingles, he notes.

Use adequate wiring and mount the blower safely, Heeg says. He placed his on a board on the attic rafters. His blower had the motor within a squirrel cage fan, and he covered the end with screen to prevent insects from crawling through the ducting. Heeg also made a hinged door to cover the hole in the access door when the attic fan is not being used. He plans to make minor changes and add finishing touches to the door.

An old furnace blower is connected by flexible ducting to a collar mounted on access door to attic. A light switch on door is used to turn fan on or off.

While the setup works fine, Heeg notes that he only used one side of the blower fan. He may hook up another vent to the other side and install a ceiling vent.

"That would be better as it would draw heat from two different parts of the house," he says.

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He Runs His Tractor On Grass Pellets

As Dave Dolan's small diesel tractor sputters to life at his Flying Rabbit Farm in Otego, N.Y., he's proud to tell visitors that it's powered by an unconventional biofuel made from grass. With help from a Sustainable Agriculture Research Grant, Dolan has been exploring the feasibility of transforming grass pellets into useable fuel. He and his son and nephew built a gasifier that chemically transforms the pellets into syngas, a form of hydrocarbon fuel. He got the idea for using the pellets for fuel after a grass pellet manufacturing facility opened in a nearby town.

The trio of inventors, which included his chemistry major nephew, built 15 different variations before finally settling on a version that produced what they wanted. The device is made of a series of metal drums, each one sealed to create a pressurized environment. Barrels are connected by a series of tubes that travel through filters and allow syngas to flow through the apparatus.

The device is fed as Dolan pours 2 medium-size pails of grass pellets into the first barrel. That quantity can produce gas for up to 4 hrs. Then he ignites a fire in the tank and seals up the system. When the temperature in the first tank reaches 650 degrees centigrade (when syngas is produced), the crude syngas fuel passes through a series of filters and other barrels that purify it. It goes from the final tank into his tractor. Dolan fires up his 3-cylinder diesel tractor and it sputters to life, ready for work.

"It's not the purest syngas in the world, but it works for my tractor," Dolan says. He uses by products from the system elsewhere on his farm. The leftover ash can be used as a fertilizer, similar to lime that neutralizes pH. The system also produces biochar, which Dolan has used on his crops and in his greenhouse as a soil amendment. He's also tried using syngas for his home heating system, though he says the process needs further refinement to be effective and economical.

Home-built gasifier chemically transforms grass pellets into a form of hydrocarbon fuel that powers Dave Dolan's small diesel tractor.

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