

Sediment Collectors Take Dirt Out Of Streams

Dwight Clary and his wife Lisa spent 11 years figuring out how to trap sediments in their stream that was washing off nearby fields. Thanks to their Clary Instream Sediment Collector, that rich black dirt is now accumulating in piles waiting to be spread back on nearby fields.

"We installed our first two collectors in the fall of 2010," recalls Clary. "We had a drought that year, so installation was easy. It took only 5 months in 2011 for them to fill for the first time. We emptied them out, and they're nearly full again."

After years of observing the sediment washing away down the stream on their property, the Clarys came up with their concept. Unable to get funding from government agencies, they turned to the local community. They got help from individuals, organizations and companies such as Beck's Hybrids. In turn, they pledged to share the idea freely with anyone who was interested.

"All we asked is that the collectors be named after us and that the first ones be built on our farm," says Clary. "We're not making any money on them."

The Clary Collectors are shallow, concrete wells set across the width of a stream. The walls and floor are 8 in. thick with rebar and fiberglass for strength. Overall dimensions are 2 ft. deep and 10 ft. wide. One is 20 ft. long, and the other 30 ft. long. A steel grate strong enough to support an ATV covers the tank.

"The collectors can be made as big as you need and might not have to be so thick," says Clary. "I would suggest having them precast, so you just excavate the space and set them in place. We put the grate on so no one can fall in."

One side of the collector is slanted so a front-end loader can drive in and scoop out the collected sediment. Clary piles the removed sediment above flood levels until it can dry out.

"It is being analyzed for nutrients and for the origin of the soil particles," says Clary. "By calculating what nutrients we are removing from the stream, we can tell what farms upstream are losing and put a dollar value on the work the collectors are doing."

Clary would like to see the collectors installed systematically throughout a stream's watershed. He suggests they be installed in the stream's natural bottom, which in his stream's case is buried in 17 to 18 in. of sediment.

"Over time, the system should clear out not only new sediment running into the stream after storms, but also old sediment between the collectors," explains Clary. "It costs a dollar a foot to clear sediment out of a stream bed mechanically, but our collectors work 24/7 365 days a year with only occasional clean-outs."

Clary says it was easy to get approval from the state and federal agencies to make the installations. "Once they understood what



Shallow, concrete well sets across width of stream and is designed to trap sediments that wash off nearby fields. A front-end loader scoops out the collected sediment.

we wanted to do, they said no problem," he says. "Our stream runs into the Sandusky River and then into Lake Erie. A fortune is spent dredging shipping channels in the lake, and the sediment is considered toxic. They can't do anything with it. If we can remove the sediment before it gets to the lake and gets contaminated, it benefits everyone."

Clary suggests installing the collectors in spots in a stream where a sandbar or mud bar naturally forms. Once installed, they should last for decades or longer.

"Because they are under the stream, they won't have any freeze/thaw cycles," he says. "It's possible they might even work at the

bottom of waterways, trapping sediment before it enters the stream."

Clary is available for consulting on collector installation. He and his wife are planning field days this coming summer for state and federal agencies interested in seeing the collectors and learning more about how they work. Their hope is for the Clary Instream Sediment Collectors to be approved for conservation funding.

Contact: FARM SHOW Followup, Dwight and Lisa Clary, 8704 Co. Rd. 62, Kansas, Ohio 44841 (clarycollector@gmail.com) or Chelsea Nord, Beck's Hybrids (ph 800 937-2325; cnord@beckshybrids.com).

Guide Cuts Wood Perfect Every Time

A guide rod and red laser light simplifies the chore of firewood cutting for Paul Daniels.

"I cut a lot of firewood, but as I would go along the pieces would seem to get longer and longer. I got tired of guessing and of marking with a stick," says the North Powder, Ore., inventor.

His Woodcutter's Friend is a simple device that attaches (and detaches) quickly to any size chainsaw. He replaces the back bar bolt with a longer bolt, slips the end of the rod over it and secures it with a clinch pin. A stainless steel rod inside the aluminum rod is secured with a hose clamp and telescopes to place the battery-powered laser dot at the end anywhere from 16 to 24 in. from the saw's blade.

"I'm older, and with the light I don't have

to get down real close to see it," Daniels explains. He lines up the red light with the cut end of the log, makes a cut and continues down the log.

"I see its value to me, and I want to see if it has value for others," he says. "The woodpile is a lot nicer looking, and this year I haven't had to cut any blocks to get them to fit in the stove."

Daniels will make the Woodcutter's Friend for sale for \$39.95, plus shipping. A video showing how it works can be found at www.farmshow.com.

Contact: FARM SHOW Followup, Paul Daniels, 48497 Antelope Peak Road, North Powder, Ore. 97867 (ph 541 856-3336; www.woodcuttersfriend.com).



Telescoping guide rod attaches to chainsaw and is equipped with a battery-powered laser light. Operator lines up light with cut end of log and then starts sawing.

Hook Up Trailers By Yourself With iBall

The iBall trailer hitch camera takes the hassle out of hooking up a trailer by yourself.

"One wife ordered one for her husband because she said they get into an argument every time she helps him hitch up a trailer," says Nina Olson, VP customer relations for Outdoors Insight, the Minnesota company that makes the hitch system.

Installation is simple. Install a 9V battery in the camera and stick the magnetic device to the back of your vehicle. Plug the 2 1/2-in. screen monitor into the cigarette lighter. Turn both units on, and you're good to go.

"In addition to hooking up all kinds of trailers, people put them inside horse trailers to watch the horses while they travel. Others put one on the back of an RV to watch a boat or car they are pulling," Olson adds.

The difference between the iBall system and competitor's systems is that it's wireless and less expensive. Outdoors Insight sells it for \$139.95 including shipping. The iBall comes with a 90-day warranty and can be found at other online businesses.

Contact: FARM SHOW Followup, Outdoors Insight, P.O. Box 368, Crosslake,



Battery-operated trailer hitch camera magnetically sticks to back of vehicle.

Minn. 56442 (ph 866 755-6303; www.iballhitchcam.com).

Magnetic Trailer Plug

It costs more, but manufacturers of the EZ-Connector say it will likely be the last trailer plug you'll ever buy. It's waterproof, non-corrosive, and it won't break when you forget to disconnect before driving away. That's because of strong magnets that connect the vehicle to the trailer cable.

Made in California, the magnetic plug was initially designed to be non-corrosive. Electrical connection systems corrode quickly on boat trailers backed into the ocean. But its design with two internal O-ring seals also makes it waterproof, and the magnets with spring-loaded contacts make a stronger connection and eliminate the problems of bent or corroded pins, broken covers or torn wiring.

"It's also very quick to connect. We sell them to the military so it meets their standards," says Jo Cardoza, company CEO.

"Salt spray, vibration and shock – this connector is the only one that can withstand those elements," Cardoza says.

Because of the strong magnetic pull, the connections hold together on dusty, bumpy roads for ranchers and horse trailer haulers. And if it does get pulled apart, it's no worse



Magnetic trailer plug won't break if you forget to disconnect before driving away. Unit is waterproof and non-corrosive.

for the wear.

The connectors start at \$59.99 for everything needed for a vehicle or trailer connection, and parts and adapters can be purchased individually. They are available at a variety of auto supply chains.

Contact: FARM SHOW Followup, EZ-Connector, 1010 E. Walnut, Tulare, Calif. 93274 (ph 559 686-5889; www.ezconnector.com).