

Extractigator is a hand-operated tree puller that's easy to use because its pivot point is close to the tree or plant.

## "Extractigator" Rips Out Buckthorn And Other Invasive Plants

By Dee Goerge, Contributing Editor

More than 20 years ago Shawn Taylor designed and made the Extractigator to get rid of Scotch broom, an invasive plant, on his Vancouver Island property. Today, his hand-operated tree puller is sold throughout the world to eliminate all types of unwanted shrubs and trees - including buckthorn, willow, honeysuckle and Russian olive - that are up to 2 in. in dia.

Taylor used his mechanical engineering skills in the design to reduce the amount of force needed to pull up a tree or shrub - with the roots - and make it convenient.

"The pivoting point is close to the plant and gives you a mechanical advantage when you're beginning to pull. With the cam shape, as you break the roots free, you rotate the handle down and have a fulcrum advantage," he explains, noting that other pullers are straight up and down and require more force in the beginning. That's about 6:1 pulling power compared to the Extractigator's 12:1 ratio. Instead of strength, the operator uses body weight.

Another time-saving feature is that the jaws open when the Extractigator is lifted. They can easily grab onto the woody plant trunk.

One customer uses it to pull up rebar used for staking trees at a nursery, Taylor notes.

But most customers use it on trees and shrubs they want to eliminate from backyards to larger acreages on farms and watersheds, as well as for uses by conservation groups and foresters. He has personally tested the Extractigator on all types of soil from sand

His family business sources local materials and makes the tool with quality and endurance in mind. The soft-grip handle on the 48-in. hollow steel tube makes it comfortable to use and light but tough. It's assembled with engineered welds and Grade 8 bolts. With its ratcheting design, the jaw shifts easily to get a second grip to pull up long-rooted trees.

The Extractigator Classic sells for \$160 plus shipping in Canada and about \$132 plus shipping to U.S. customers. Taylor also sells a Junior model that works for shrubs up to 1 1/2 in. in dia., a BigFoot accessory with a bigger footprint to use on soft soils, and a Big Daddy with jaws that open to 3 1/4 in. Taylor's website includes pricing, as well as videos showing how it works.

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## MooLoo "Teaches" Cows Where To "Go"

Researchers at the University of Auckland in New Zealand have found a way to potty train cattle.

The goal is to contain and control waste to keep from contaminating groundwater and reduce ammonia released into the air.

The researchers teach young cows to urinate in specialized pens outfitted with waste containment. When cows pee in their designated toilet area, the nitrogen from their urine can be captured and treated.

"Cows, like most animals, are much smarter than they're traditionally credited with," says Dr. Lindsay Matthews, a University of Auckland-affiliated researcher that worked on the project.

First, the cows were placed in the Loo, a latrine pen painted bright green to differentiate it from the rest. Those who urinated within it were rewarded with treats, while the animals that did their business elsewhere experienced a mildly irritating splash of water. Many cows learned the association between the snacks and their bathroom space within 15 to 20 urinations and would self-initiate heading to the Loo to use it. By the end of 15 days, 75 percent of animals were urinating in the Loo



Cows are rewarded with treats when using the latrine pen. On average, 75 percent of cows learned to use it within two weeks.

most of the time.

While further experiments are necessary to demonstrate the potential for scaling up at commercial farms, the results are promising - especially the apparent willingness of the cows to participate.

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## **Pipe Feeders Handle Lots Of Birds**

"We were trying to figure out how to feed lots of birds simultaneously," says Jeff Siewicki regarding how he came up with the idea to use irrigation pipe to make poultry feeders. He's used it for more than three years to feed ducks, turkeys and chickens and is enthusiastic about sharing his less expensive, efficient ideas with others with pastured poultry operations.

"I buy double-wall irrigation pipe that has a smooth interior and cut it in half with a circular saw," he says. He uses 8-in. pipe for smaller birds and 12 or 15-in. pipe for bigger birds. He blocks off the ends with pieces of wood and when filled with feed the feeders don't tip or spill feed.

That creates 80 ft. of feeding space from a 20-ft. pipe and allows more birds to eat at a time. That's important Siewicki says, as often weaker birds aren't able to access food at smaller feeders.

By adding a rope to one end, it's also easy to move the pipes when he moves his birds every day or two. He usually cuts the 20-ft. pipes in two to make them easier to move. A 10-ft. 15-in. pipe full of feed weighs about 200 lbs. Siewicki fills the feeders once a day and adjusts the portions if a lot of feed is left, so there is little to no waste. The only issue he occasionally has is that feed can get between the walls. He turns the feeder upside down to clean them out and whenever they are not in use

When Siewicki purchased his pipe, it was around \$100 to \$150 for 20 ft., and it has



Siewicki buys double-wall irrigation pipe that has a smooth interior and cuts it in half with a circular saw. He blocks off the ends with pieces of wood and, when filled with feed, the feeders don't tip or spill feed.

come up in price since then. Still, he says, it's a less expensive and simple feeder that works

It's one of the ideas he shares through his regenerative Vital Mission Farm in South Carolina, the Success with Pastured Poultry Course he offers and his YouTube channel (Farmer Jeff Siewicki – Cheap DIY bulk range feeder for chickens). More information can be found on his website.

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Adleman added a plywood box to his electric golf cart and added a steel hinge at the rear and mounted the box to it.

## **Inventions Make Farm Tasks Easier**

Retired farmer Lester Adelman of Rice, Minn., came up with two inventions to make life simpler for both himself and his daughter.

First, 12 years ago, he decided to modify an electric golf cart. He removed the bag holder and straps that were constructed onto the flip-up engine hood on the back. He built and painted a plywood box to fit onto the existing hood. After adding a steel hinge at the rear, he mounted the box to it.

"To dump it, I grab hold of the side handles and lift the whole hood and box together," says Adelman. "Once it starts coming up, it balances because of the hinge on the back end. It's made to lift anyway because that's how you get at the engine to service it."

He can haul a load of rocks when cleaning up around the garden or carry tools when making repairs.

His second invention helped his daughter, an avid horse rider, enter or exit the gates of her riding arena without dismounting from her horse

Adelman found some scrap iron along with a 1-in. wide strip of spring steel about 2-ft. long. After welding a round steel button to it, he fastened the bottom of the strip to the outer bar of the gate. The top holds a rubber-covered chain for torque to move the button in and out of a gate post notch.

To make the notch, Adelman bolted a rightangle piece of metal to the gate post and cut a hole where the button would fit when the



Gate hinge allows a horse rider to open or close a gate without dismounting.

gate was closed.

He laughs when he describes how well it works but warns that horses are often smart enough to lean their heads on the chain to release the button from the latch and walk through the gate.

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