

## “Compost Me When I Die”

Jason Detzel wants his body to be composted after he dies. The livestock resource educator is an expert on composting livestock and sees no reason why his own body shouldn't be composted, too.

“I've written instructions for the handling of my body,” he says. “There's no rule against it in New York.”

Detzel recently authored an article on the concept in OnPasture, the online newsletter for intensive grazers ([www.onpasture.com](http://www.onpasture.com)). In it he describes how he began to consider the idea of putting his body to use feeding plants and the soil. That led to checking out the legality. New York rules are simple.

“It's legal to bury a person on your property if you keep the body away from water sources and notify the local government,” says Detzel.

He then went on to research options for those who don't have access to private land. He found two groups working on the idea of composting as an alternative to traditional burial or even cremation.

One was the Urban Death Project Seattle, Wash. Their concept includes placing the body in a biodegradable bag that is placed in a bed of wood chips or other carbon material at the top of a specially designed building. Once the body has been converted to humus, it could be used in city parks or gardens, or family and friends could retrieve it for use in personal gardens and yards.

Currently the Urban Death Project founders are attempting to raise funds for a prototype building. A 2015 crowdfunding effort raised more than \$90,000 from more than 1,200 backers. The design and engineering for the prototype building has been completed, and 6 human bodies have been composted with the help of the Forensic Anthropology Department at Western Carolina University.

Capsula Mundi, an Italian organization, is also working on a system for composting the human body. They have designed a biodegradable, starch-based capsule to



**An Italian organization is working on a system for composting the human body. Large Capsula shown here is for the body; smaller capsules are for ashes.**

enclose the body in the fetal position. The idea is for the egg-like structure to be buried in the soil and a tree planted above it. They have begun production of a starch capsule for interring cremated remains.

The Capsula Mundi founders Anna Citelli and Raoul Bretzel told FARM SHOW, “The Capsula for ashes is ready to go. In a few weeks we'll launch a crowdfunding campaign on Kickstarter, in order to also make the bigger Capsula for the body a reality.”

Detzel questions if there would be sufficient carbon material for successful composting. He suggests burying the capsule in a bed of carbon.

Detzel has laid out plans to get the ratio right for his own composting. He wants to be sure it is done right. He admits not everyone he knows is as enthused about the idea.

“My mother isn't happy about it” he says.

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## Farm Family Raises Vegetables For Local Food Banks

When Jonathan Lawler learned from his son that children at his rural Indiana school relied on food from the local food pantry, he decided he needed to do something. He switched his 36-acre farm from raising vegetables for the wholesale market to raising food for Central Indiana food banks.

Brandywine Creek Farms is a nonprofit organization created under the umbrella of Project 23:22, which refers to a Book of Leviticus verse about leaving food for the poor when harvesting. Thanks to local publicity, Lawler and his family have received financial help and sponsorships from supporters, such as Park Chapel Church and Hancock Regional Hospital, to help cover expenses. NASCAR racer Richard Petty has come on board with a fundraiser, and there will be a Farm to Table benefit dinner in September.

Lawler grows 6,000 tomato and 6,000 cucumber plants, eight acres of beans, plus peppers, onions, zucchini, sweet corn and watermelons. Tractors pull 7-ft. tillers and implements that lay mulch and drip irrigation systems.

“It's a small footprint, but our goal is to grow 20,000 lbs. of food off every acre,” Lawler says.

Volunteers who help with the labor-intensive operation – planting, weeding, harvesting – come from a variety of sources. Lawler appreciates retired farmers who know how to fix tractors and equipment as well

as individuals who just want to help. Able-bodied residents who use the county's food shelves are required to put in so many hours. Agencies send at-risk youth to help out, and Lawler is working with a military advisor to set up a Veterans farm project. Eventually he hopes to help them start their own operations.

Food shelves and organizations such as the Midwest Food Bank place orders for the amount of food they need and bring trucks to the Greenfield, Ind., farm. Because it is fresh, the food has a longer shelf life than the expired produce typically donated from stores.

The Lawlers grow vegetables that are most popular with food shelf clients. But they realize that education is also important to teach people how to prepare and preserve produce. Lawler says his wife, Amanda, and members of their church plan to go to areas where the vegetables are distributed to offer classes.

It's also been a step in faith.

“We have big plans to change the food landscape in Indiana,” Lawler says. “We want to make food very affordable or free to people who need it. We are trying to get other farmers on board – you can never sell everything at farmers markets.”

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## Duck Gets New Feet From 3-D Printer

When Oshkosh, Wis., middle school technology instructor Jason Jischke added 3-D printers to the school's curriculum, he never anticipated he would be printing duck feet. It turned out to be lifesaving for Phillip, a Muscovy duck who lost both feet due to frostbite because of an irresponsible owner. And it was a real life lesson in problem solving and design for the teacher and his students.

Jischke had developed two prototype projects so his seventh- and eighth-grade students could use the newly acquired printers. As a result, he offered a presentation on 3-D printing at the state technology conference. A story about it was reported in a local newspaper and was read by the sister of Vicki Rabe-Harrison, who had rescued the duck.

After the sisters requested help, Jischke decided to take on the challenge. The process included measuring the duck's legs precisely and printing the feet 4 times.

The first was a rough prototype. The second involved printing rings to check for the right size. The third pair modified the angle and shape.

“For the fourth pair, we used a more flexible material (donated by Ninjaflex) and it took 39 hrs. to print,” Jischke says. “We put rubber booties on the end of each leg, and it made a suction to keep the foot on.”

Though stiffer than normal duck feet, Phillip can walk and swim with his 3-D printed prosthetics. Donating his own time and using a trial printer (Dremel Idea Builder), Jischke was able to make the duck feet for free, and give Phillip the chance to live a better quality of life in a sanctuary.

When the story went viral, Jischke was surprised by BBC and local and national media attention. He plans to use the experience to help teach his student.

“I always tell them ‘don't be afraid to fail.’”



**A Wisconsin middle school technology instructor 3-D printed these feet for a duck that had lost both feet due to frostbite. Rubber booties on end of each leg create suction to keep feet in place.**



This give the kids insight of how it's done in the real world,” Jischke says.

Like many of the projects featured in FARM SHOW, he notes that things rarely come out right the first time and require creative thinking and problem solving, doing it over and over until you get it right.

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## He Built A Working Mini “Hit And Miss” Diesel Engine

“My dad Richard loved collecting old Deere, IH and Hercules hit and miss engines,” says Rich Holt. “After he retired he bought a casting case for a small hit and miss replica and decided to build his own diesel-powered unit.”

Holt says “dad used his experience working with gasoline hit and miss engines and his skill as a machinist to build the diesel version that ‘looks as nice and runs as smooth as a Swiss watch’. When you see the finished engine you'd swear it was made by a factory that had turned out hundreds of them.”

To build his tiny masterpiece Holt's father used an injector from a spare engine and put it in the diesel casting. The crankshaft came from a Briggs and Stratton lawn mower. Richard made valves from allen bolts that he turned on his own lathe. He also made the injector pump. The camshaft was from an old lawn mower engine and the flywheels he made from a brass gear sprocket. He attached a special tool to the flywheel so he could start it with a 19-volt battery-powered drill.

Holt says his father was a real stickler for details and enjoyed the challenge of building part by part. The mini engine measures 12 by 18 in. and is 14 in. tall. It has a governor that holds top speeds between 1,200 to 1,400 rpm's and idles it down to about 800 to 900 rpm's. Holt remembers his dad working on the engine for nearly 6 mo. before it finally ran to his satisfaction. After it was done he



**Tiny “hit and miss” diesel engine measures 12 by 18 in. and is 14 in. tall.**

envisioned building a kicker, similar to those used to start an old Maytag motor, to start his engine.

Holt says after Richard retired in 2001 he built a nice heated barn with a machine shop for his lathe, milling machine and surface grinders. Even though his father passed away a few years ago, his hit and miss collection is still pretty much intact. He and his brothers have fond memories of the small engines and the satisfaction their father got from maintaining, repairing, tuning and running them. Says Holt, “I don't think my brothers and I are getting rid of the collection, especially the diesel, anytime soon.”

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