

## Cabinetmaker hits pay dirt with worms

An entrepreneur tops StartupNation's list of the Grungiest home businesses by mixing carpentry skills and composting know-how.

Doug Knippel was looking at his compost a few years back and noticed a group of red worms crawling around in the dirt. That's when he began to unearth his business plan. Knippel's [Northwest Redworms](#), a company based in Camas, Wash., near Portland, Ore., was named the Grungiest business of the year in the [2007 StartupNation Home-Based 100](#) rankings. As much as Knippel might not think his company deserves the title, when a business counts ratio of worms to compost as its key metric, it's a solid bet for this award. Knippel feels that perhaps his company is more suited for the Greenest category, since his enterprise is environmentally friendly. But [HB 100 judges](#) decided that anyone dealing with that much slime, dirt and rotting foodstuffs fits right into the Grungiest category.

### Laying the groundwork

Before launching his worm empire in 2005, Knippel made a living building cabinets in his brother's employ -- a job he'd held since leaving the Air Force in 2005 after 17 years in service. He has gotten his hands dirty and composted throughout his life, using biodegradable organic household waste such as vegetable scraps and other materials as nutrients for growing plants. Though the process is a smelly one, it is embraced by many environmentally friendly communities because it is a nutrient-rich way to grow plants and farm without using chemicals. It also takes advantage of materials that would be thrown out otherwise.

The problem with compost is that it takes a while for some of these materials to break down into a substance that can be used as plant food. Imagine a pile of rotting watermelon rinds; though the food goes bad relatively quickly, it takes a while for it to rot down into a suitable mush.

When Knippel saw the worms, scientifically known as *Eisenia fetida*, he remembered stories he had heard saying they can speed up the composting process by eating the gunk and passing it through their bodies, creating a finer material.

"Anything breaks down, but red worms make it 100% organic compost," he says by phone while out with his creepy-crawlies. "Plant life bonds to it."

### Down-and-dirty R&D

When Knippel launched, his start-up costs were (pun intended) dirt-cheap. With his cabinetmaking skills, he figured he could design customized cabinets in which the red worms could do their slimy jobs, as well as lay eggs to reproduce.

His research and development costs were as simple as looking up information on the Internet and checking out books at the library. Knippel had Web-development skills, so he was prepared to build his own site, [Northwest Redworms](#), which features a large photograph of his slimy product. He also had 10 acres of land that he could devote to raising red worms, and he knew a local dairy farmer who agreed to let him use part of a 100-acre plot as well.

Imagine acres of writhing worms.

### Low overhead, lots of patience

Forget the expense of paying benefits and salaries to hundreds of employees. Knippel compensates his hundreds of thousands of red worms with only post-consumer food waste. There's no need for a health plan or extended vacation packages when your workers' sole delight is devouring rotting vegetables. Despite his low overhead, Knippel ran into some problems at the beginning. He started with half a pound of red worms, and it took a full six months for them to procreate into the 20 to 30 pounds of worms he knew he'd need to start selling the creatures. They eat fast, but spawning goes a bit slower.

"The first thing it took was a lot of patience, because I dabbled with it," Knippel says. "There were a lot of times during the first six months that I thought that this was another joke."

Red worms, like other products in the organic-growing world, have been under scrutiny as scams, and Knippel was concerned that he was becoming the victim of his own hype. But the worms eventually multiplied, and Knippel was ready to start offering his products.

## From grunge to green

He started out by advertising his red worms on the popular classified Web site Craigslist and, taking a friend's ardent advice, on eBay. The eBay experience was short-lived, as the online-auctioning company eventually banned the selling of his creatures on its site. But through the experience, he learned, to his surprise, that he could package worms and ship them as far away as Alaska and Puerto Rico. Now he promotes his business at farmers markets, through his Web site and through community composting programs.

And his grungy business has generated some serious green. In 2007, Knippel made more money from Northwest Redworms than he ever has working as a cabinetmaker.

To contain the grunginess, Knippel combined his cabinetmaking experience with his red-worm husbandry skills and has now packaged the red worms in cabinets that sell for between \$20 and \$350. He also offers instructions on do-it-yourself red-worm cabinet construction for \$15 and notes that these are his biggest sellers. Knippel views this, and educating the composting community about his product, as helping his business in the long run.

He has a similar view of the few other worm mongers out there who compete with him.

"I encourage it," he says. "We can only help each other. There's a demand, and sometimes you're short on worms. It's always good to have a backup that you can refer a customer to."

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