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COMPOST

Local compost business joins forest restoration



Patrick Pfeifer, Geos. 220 grad

1 HOUR AGO • EMERY COWAN SUN STAFF REPORTER

The walls are still mostly bare and the bookshelves still waiting to be filled, but already the new office of Roots Composting is filled with the smell of rich, dark soil.

Buckets and bags of the company's compost are the room's main decorations, besides a whiteboard already filled with notes and numbers. Two years after it was started by three young Flagstaff residents, the company can count itself a vital part of the largest forest restoration project in the

country.

Roots Composting has entered into a partnership with Good Earth Power AZ, the company that was awarded the largest contract under the Four Forest Restoration Initiative. Together, they will create a system that combines thousands of tons of woody biomass from northern Arizona's forests with food waste from the Flagstaff area to produce a high-quality, nutrient-dense soil additive.

PERFECT MATCH

It's a match that hardly could have been more perfect, or better timed, people on both sides of the partnership said.

Tasked with thinning 300,000 acres of forest over the next 10 years, Good Earth and its timberland manager Campbell Global had been searching for ways to make a profit on the thousands of tons of lower-value woody biomass like bark, branches and small-diameter trees that the Forest Service requires they remove from the forest.

On the east side of the forest restoration project, Good Earth has been hauling that forest slash to Novo Biopower's 27-megawatt biomass power plant in Snowflake. But there wasn't any similar use or market on the west side of the 2.4 million-acre 4FRI project area.

"We had been talking about one of the uses of slash from the forest was making soil amendments and compost and then it was just coincidental that was about that same time we got an email from Kevin," said Steve Horner, area manager with Campbell Global, referring to Roots co-founder Kevin Ordean.

WOOD CHIPS GALORE

For its part, Roots Composting was facing several barriers to reaching the next level. The three founders were all working part-time jobs in addition to the composting business and didn't have time to expand operations beyond picking up food waste at about 20 restaurants and coffee

shops and a few breweries around town. The men were also struggling to find enough carbon-rich matter to balance out the nitrogen-rich food waste they were collecting.

“Our biggest limiting factor to growth, besides time, was access to wood chips,” said Roots co-founder Patrick Pfeifer, a Northern Arizona University graduate who developed a large scale composting program on campus that became the jumping off point for Roots.

It was early last fall when the men, after realizing that Good Earth Power was going to be producing tons of wood chips and other woody material from its forest restoration work, decided to reach out to the company to see if the two businesses could help each other.

Both companies quickly realized the potential for symbiosis.

“We were each solving each other's problems,” Ordean said. Less than six months later, Roots Composting is now officially under the Good Earth umbrella as part of the company's soils and bagged products division.

3,600 ACRES A YEAR

It may take a bit of time, but the new composting operation expects to eventually be able to annually process 60,000 tons of limbs, needles and small diameter trees into revenue-generating compost and other soil products. With an average of 16 green tons of biomass per acre in Good Earth's contract area, according to Forest Service estimates, that equals biomass from about 3,600 acres per year. To fulfill the terms of its contract, Good Earth needs to thin almost 40,000 acres per year.

The partnership will also allow Roots to expand its operations to offer pickup services to Flagstaff residences as well as homes and businesses beyond the city. Good Earth is providing the financial backing to help make that expansion a reality, Ordean said, and the company has hired all of the Roots co-founders into full-time positions so they will be able to focus solely on the composting project from now on.

While great for the future of composting in Flagstaff, as much as anything, the expansion is happening out of necessity. Compost generally requires a one-to-one ratio of carbon-rich material to nitrogen-rich material. That means the company will ultimately need to collect somewhere in the range of 60,000 tons of food waste annually to balance out the forest material, Pfeifer said.

FARMERS TO BENEFIT

The expansion will also be good news for Roots customers. Demand for the company's compost perpetually exceeded supply last spring, Ordean said. At a larger scale, “instead of dropping off 40 bags to the nursery every couple of months, we'll be able to drop off full pallets of finished compost,” Pfeifer said. They're also looking at how they can create partnerships with farmers in the Verde Valley to broaden the compost's uses beyond gardening.

They expect to have the first batches of finished compost product ready by spring.

Scaling up means that the business will be able to accomplish its goals of helping agriculture and removing waste from the landfill on a larger scale, Ordean said.

The composting operations will be located on a 37-acre parcel east of Williams that Good Earth announced it had leased in December. The site will also house a mill that is expected to begin

processing lumber and wood chips by March.

MORE THAN TIMBER SALES

Pfeifer and Ordean said they are excited for the kind of example their partnership with Good Earth Power can become for other forest health projects.

“I see these first few years to prove the model for sustainable forest restoration, not just in this little chunk of northern Arizona but throughout the entire southwest,” Pfeifer said.

Ordean picked up where his business partner left off.

“If you need a healthy forest you need to restore it, think about soils, don't just think about how much timber can we sell,” he said.