

THE RIO GRANDE FOOD PROJECT

A COMPOSTING UPGRADE

BY: ROB KAHLER AND ANNA O'MALLEY



SUMMARY

The Rio Grande Food Project (RGFP) is a food pantry located just south of I-40 and Coors. It is operated from inside of the Rio Grande Presbyterian Church, although it is not directly affiliated with the church. The food pantry has a large urban garden attached to it which supplements the pantry's food supply. While the garden can't grow enough to fill a significant fraction of the pantry's needs, the addition of fresh fruits and vegetables is greatly appreciated by the local community, as those who need to rely on food pantries often have difficulty accessing fresh food.

This composting project was conducted jointly by Rob Kahler and Anna O'Malley. In summary, the project consisted of starting and running a large-scale composting operation at the RGFP to support the garden's health and reduce expenses associated with the garden.

The project is still ongoing, and has involved the following achievements so far:

- Repairing and upgrading four large existing composting bins that had fallen into disrepair and disuse
- Adding three large donated composting tumblers, two of which were donated by Rod Reay, a fellow Master Composter
- Processing many cubic yards of accumulated garden debris
 - The existing gardeners, knowing the importance of composting, had collected substantial amounts of compostable material but had not had the time or knowledge to effectively compost it.
- Collecting hundreds of pounds of spent coffee grounds from Albuquerque-area coffee shops
 - The accumulated garden debris was overwhelmingly brown material, so high-nitrogen coffee grounds were needed to balance the piles
- Educating and encouraging the food pantry staff to "donate" any expired food instead of throwing it in the nearby dumpster
 - This has become the primary source of greens in the bins. Food pantries receive a great deal of nearly expired food from grocery stores, so if they're unable to distribute it before expiration then they generally need to throw it away. Now, most of that food waste is composted.
- Organizing multiple large volunteer groups for various composting-related tasks
- Educating numerous other gardeners, RGFP staff, and volunteers about composting
- Building three new New Zealand style bins using lumber donated from a back patio renovation
- Building a tall raised bed for the purpose of housing multiple in-ground worm bins

The rest of this report consists of a timeline of the project, along with relevant pictures.

OCTOBER 2023: BEGINNINGS AND REPAIRS

The RGFP composting project began when Rob volunteered at the RGFP with his workplace and learned that the RGFP needed composting assistance. Ann Shields, the Master Gardener in charge of the RGFP's garden, recruited Rob's help with the RGFP's limited existing composting setup during this event. Rob recognized that extra assistance would be beneficial, and was particularly happy to find a composting opportunity that also supported a charity, so he began returning to the RGFP every weekend. Anna, Rob's partner, was also highly interested and delighted to find such a good volunteering opportunity, so she soon joined in on the composting work.

Ann Shields quickly ceded management of the composting area to Rob and Anna due to her limited time availability, and the work to revitalize the area began in earnest.

Below are two pictures of the composting area when Rob and Anna first took ownership of it.



The two leftmost bins in the picture already had good anti-evaporation material applied to them, so with some improvements to the front of the bins they were immediately usable. The first problem to present itself was the huge number of browns as compared to available greens. This was alleviated at first by chopping down the trees of heaven and elm trees located in the pictures, as they were in the way of the bins anyway and offered a good source of green material.



The excessive number of browns continued to be an issue for several months but was mitigated during this time with the introduction of considerable amounts of coffee grounds from local coffee shops. A local donut store named Bristol Donuts also partnered with Rob and began saving all their coffee grounds for Rob to pick up on a weekly basis. They even eventually started supplying all their eggshells, which continue to provide excellent calcium in the compost.

NOVEMBER 2023: DONATIONS GALORE

November started off with a very kind donation from Rod Reay of two enormous compost tumblers. Rod was retiring much of his home composting setup and was looking for a good home for these tumblers right as the RGFP composting project was looking to expand.



Additionally, in November the food pantry began donating a large amount of their expired produce to the composting setup, including a memorably large 500 pounds of potatoes that had been delivered to the pantry already expired. Chopping and preparing this material took up a great deal of time but led to some excellent contributions to the piles and the tumblers. Fall cleanup in the main garden further contributed helpful green material, leading to the new tumblers being rapidly filled.



By the end of November, the bins were beginning to run out of room despite the additional tumblers, so Anna sought out sources of cheap or free lumber to build a new set of bins. Fortunately, she found a kind person on Facebook

Marketplace that was trying to get rid of a large amount of lumber from her patio renovation. This was excellent material for new bins and was surprisingly high-quality wood, so Anna organized a pickup and she and Rob brought the new material to the RGFP.



JANUARY 2024: JIM CHIPS IN

December passed with few developments other than a continuous slog through the piles of brown material. However, this all changed with a wonderful Christmas gift from Rob's brother, Jim: An electric woodchipper. Now, instead of

cutting hundreds of sunflower stalks into manageable chunks by hand, Rob and Anna could rapidly shred them and get a handle on the brown material imbalance. It turns out that dried sunflower stalks basically turn into powder if you put them through a woodchipper, and this powder composts very easily. The piles actually started getting mushrooms growing out of the resulting coffee/sunflower mix, and the piles produced steam within a week of being built.



Soon, all that was left of the largest piles of browns were a handful of pieces too big to go through the woodchipper. These pieces would later be used in a hügelkultur bed built for housing worm bins.



MARCH 2024: A PRELIMINARY HARVEST

March marked the first compost harvest. This did not produce as much finished compost as one might have expected, as about half of the material being harvested came from a bin that largely predated Rob and Anna's involvement. However, it still produced enough usable compost to act as a top dressing for the five raised beds seen below.



The gardeners were delighted with how *alive* the compost was. The bin even turned out to have a surprisingly robust worm population that had multiplied from a small number of worms added to the bin a few years ago! Over the course of the early growing season, the soil health of the beds treated with the compost noticeably improved, which was timely as the soil previously consisted of a low-organic-material mix that was beginning to show its age.

March also involved the donation of a third composting tumbler, this time from Kristen Smith, who was moving out of state.



Finally, at the end of March, Anna coordinated a large-scale volunteering event at the RGFP in order to simultaneously build the new raised beds and also clear out all the remaining brown material. About 15 people showed up, including Rob's manager, and everything was completed. Rob had an opportunity to nerd out and educate a bunch of his coworkers on composting as well. In the below picture, he's holding up an example of the approximate size we wanted to cut the woody material down to in order to act as good bulking material.



Anna coordinated the building of the new bins. She spent many hours pre-cutting the wood ahead of time using her miter saw to prevent safety issues, and she and several other handy folks built the entire setup in a few hours.



JUNE 2024: THE FRUITS OF OUR LABOR

Following the volunteering event, the work at the RGFP largely became that of filling and maintaining the bins. The backlog of brown material was gone, and the pantry along with Bristol Donuts provided enough green material to keep everything in balance with the garden's inputs, which still skewed brown due to the sheer number of sunflowers growing in the garden.

In June, the first piles that were entirely built by Rob and Anna were ready to harvest. The results were spectacular: Two full cubic yards of dense, nutrient rich compost that was vibrant with life. All of this was harvested in one day with the help of another volunteer group. Ann, the master gardener, was grinning from ear to ear as the team not only top-dressed but practically filled numerous raised beds with the rich compost.



OCTOBER 2024: WORMS JOIN THE PARTY

The rest of the summer proceeded as usual, with additions from the garden and the pantry making up the bulk of the inputs. Finally, in October Rob built a raised bed in the composting area specifically to house several in-ground worm bins. A variety of bins were used, as Rob intends to teach composting classes at the RGFP starting next year using the RGFP composting project as an example.

Rob filled the bed using the hügelkultur technique, which is a method of filling raised beds that involves filling them with decomposable material of decreasing size as you go higher in the bed, until you get to the top foot or so. That top foot becomes the only place one uses actual growing medium. This was particularly convenient due to the remnant brown material that was too large to otherwise work with easily. Instead of burning it or taking an axe to it, Rob was able to simply bury it in the raised bed.



THE FUTURE

Going forward, Rob and Anna will continue to maintain the bins at the RGFP indefinitely. Rob plans to begin holding composting classes there in 2025. Further infrastructure is tentatively planned in 2025 to take advantage of extra space, likely another series of New Zealand style bins. Rob and Anna look forward to watching the soil health in the garden continue to improve, and hope that the addition of substantial amounts of compost will improve the yields and reduce the costs of the garden at the RGFP going forward.