

LocalExperts

a series of green tips and techniques from the campus e-team



Composting Q & A with our Resident Dirt Farmers, Sue Kelly and Michial Russell

What inspired you to start composting?

Sue Kelly, physical education professor. My composting history began 30 years ago in Queens, N.Y. I had lived in apartments for many years and finally decided to buy a house. It had a 36x90 foot lot with a small backyard. I was in heaven because I could have a garden.

I read all I could about urban gardening and composting. I learned about growing organically and how to amend the soil without chemicals. So, I created my compost pile next to the garage.

Michial Russell, campus farm manager. I first became interested in composting when I grasped the amount of waste that the average American family generates annually, and the environmental devastation caused by petrochemical-based fertilizers used to produce our food.

What are the benefits of composting?

SK: Reduction in the waste stream and organic fertilizer created at no cost.

What special equipment is needed to compost?

SK: None, you just need a place for the pile to grow. Some of the ways to contain the pile include:

- Plastic composter provided by many towns for a charge. It keeps the pile in control and composts faster because of its design, but can be unsightly.
- Pallets: use three to four pallets to form a square bin to contain the pile. (Some folks create three bins and move the pile as it needs to be turned from one bin to the next.) Pallets are usually free and offer easy access to the compost but can be unsightly in landscaped yard and will eventually rot out.

Is it difficult to compost at home?

SK: No! I pile all of my green waste from the kitchen, leaves and weeds from the garden and any other green waste I can find. I throw all green material on to the pile, summer and winter. By spring, I can dig deep into the pile and find the richest soil on earth for my garden.

What can you put into your pile? (SK)

- I avoid most protein for the pile, but do add fish and lobster bodies as well as shells to the pile.
- I use grass clippings, leaves, weeds, all green garbage from the kitchen, sawdust from the wood shop and maybe once a year some ash from the fireplace.
- I have found that woody debris like sticks and twigs take longer to decompose, but they add a degree of aeration to the pile so I use them.
- I have added llama manure to the pile, and that seemed to enrich the result.
- I also add soil to the mix – when I need to dig a hole, I shovel some of that earth onto the pile because the organisms in the soil help to break down the organic matter in the pile.

What is the difference between “hot” composting and “cold” composting?

MR: The science of composting is just a controlled version of what nature does in its own time. By creating the proper balance of carbonaceous (brown stuff) materials, and nitrogenous (green stuff) materials, compost happens. Managing the moisture and air governs how quickly it happens and what will breakdown.

“Cold composting” is really just a matter of taking your leaves (brown stuff) and kitchen scraps (green stuff) and throwing them in a pile in the backyard and letting the microbes, bacteria, and fungi have at it.

When “hot composting,” you are managing the moisture and the air contents of your pile, thereby creating an ideal environment for microbes to eat and breed. As they reproduce, the temperature in the pile increases.

An ideal “hot” pile is between 140 and 150 degrees at its center. The higher temperature accelerates rate of decomposition, kills weed seeds and insect eggs and facilitates breakdown of any organic material.

Can I compost meat?

MR: Remember, if it is made of organic materials, it can be composted. That pretty much leaves out . . . um . . . plastic. Hot compost takes full advantage of existing microbes, fungi, and bacteria to break down the organic matter in our piles.

In hot composting you can add meats, dairy products, oils, etc., but remember that proper pile management will keep you in good graces with the neighbors!

Personally, I would discourage using meats, dairy, oils, etc., in a home pile. They slow the compost process down a bit and without the proper management you will attract insects (flies – yuck!), critters (raccoons, skunks, turkeys, etc.), and the smell can be overwhelming.

Why is composting at St. Joe's such a big deal?

MR: The campus farm's composting program is helping to promote a standard of minimizing or eliminating wastes at the college – that whole zero carbon deal. Through our composting effort, we eliminated 30,000 pounds of food and paper from the waste stream.

We demonstrated that compostable dishware is practical, and through having students out to work the piles, we have commitments from many students to be more vigilant about their eating (and ultimately food-wasting) habits.

Additionally, by taking advantage of what we have here on campus, we are able to tend to our soil on the farm without having to haul in compost from other areas. It really is a win-win situation.

What about the smell?

MR: You typically won't get any smell from a cold pile. Odors are the result of incomplete composting (a.k.a. rotting). Offensive odors in a hot pile are generally the result of one of three things:

- Insufficient oxygen in the pile, so just flip/fluff your pile.
- Too much moisture, so just flip/fluff your pile
- Not enough carbon, so add leaves or wood shavings.
- More often than not, smell is an oxygen issue. Remember to watch your carbon-to-nitrogen ratio. In a hot pile you want to have about a 20:1 ratio of carbon to nitrogen (brown stuff to green stuff). Adding shredded leaves will enable you to reach that 20:1 ratio much faster.

Will my pile attract animals?

MR: It can, depending on what you put in it. Animals like skunks and raccoons have a scavenging habit and a palate for human food. By making sure that you have a healthy layer of brown material on top (roughly six inches) you can help to prevent them from coming around. The biggest impact that they will have is to "open up" your pile. The easiest solution there is to simply cover it up again.

Any closing thoughts?

SK: I believe that if I can be successful at backyard composting, anyone can. There really are no rules – nature seems to take over where I may err.

MR: Composting can be very rewarding. It provides the garden plants many of the nutrients they need at just the right time without the petroleum-based chemicals. It's basically free! For the folks in towns with pay-per-bag trash programs, remember that what you compost, you don't throw away. Throw away less and you buy fewer bags! It really is a win-win situation.