

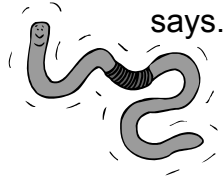
Worming Their Waste Into Your Garden

I brought home many interesting things from this year's Master Gardening classes. For example, two fat one-gallon plastic bags heavily loaded with what looks like crumbled brownies fresh from the oven. Many of the other MG interns from Cobb, DeKalb, Fulton and Gwinnett counties who trained together also paid five dollars each for similar bags of what has been described as "black gold" for your garden, worm castings. This organic soil amendment has been shown to stimulate root and plant growth, increase flower size, and to impart certain disease and pest resistant qualities to plants. (It's also odorless, which for manure is a huge plus.)

Bobby Wilson is a big believer in using worm castings. The DeKalb and Fulton County Agent spoke to our class about the many benefits. He has been using it on vegetables grown at the Atlanta Urban Gardening Program. "The main thing we detected is that it produced a much more massive root system than the plants that we did not use worm castings on," he says. "Plants can stay healthier with a stronger root system."

Wilson says they introduced the product to master gardeners so that we can try it and tell others.

"Over the long haul, we want to reduce the use of chemicals in our gardens. It helps clean up the environment. It helps us to eat healthier because vegetables haven't been sprayed by herbicides and pesticides and it cut costs because you don't have to spend money on herbicides, pesticides and fertilizers," he



DeKalb County Master Gardener Phil Edwards was instrumental in bringing the truckload of worm castings from Bear Creek Worm Farm in Douglas, Georgia that was divided up and sold to the MG interns. He first got interested in it when he attended a workshop on worm castings a few years ago led by Jason Governo, a research engineer at UGA who is known as the "compost wizard". Jason's enthusiasm for worm castings spread to Phil.

"I started using it at the Piedmont Park Community Garden. In an organic garden it's the best amendment. We've had extremely good luck with it. I don't have to use any other amendment and no fertilizer," he says.

"Ohio State University recommends a twenty percent mixture for the best growth, fruit and flower production," says Phil. "But we've been talking with UGA researchers they say a 3 parts worm castings to 1 part soil mixture is the best. We put about a cupful per plant mixed into the hole."

In addition to superior growth, amending soil with worm castings has been shown to increase a plant's ability to repel certain insects including aphids, white flies, spider mites and other sucking insects that feed on plant juices. Worm castings



trigger plants to increase production of the enzyme chitinase causing these insects to be repelled by the plant rather than attracted to it. Many plants have shown this resistance including roses, begonias, hibiscus and various house plants. Research is ongoing.

Another benefit is fungus control. Testing has shown that worm castings will quickly control fungus problems by improving soil biology. Within a few weeks plants suffering from fungus problems have shown significant, lasting, improvement.

There's only one baggie left in my stash and I have been meting it out carefully to my most favored plants hoping to witness the benefits promised. If it works well, I'm considering setting up my own little worm farm.



On our recent tour of Cobb County master gardening projects I was delighted to learn that some students at Kemp Elementary School have created a small worm composting bin to enrich their garden. If the third graders can manage it, surely I can too. Phil Edwards has promised to help me set one up. His is in a big plastic container "like the kind you keep sweaters in" that he stores in his basement. He provided the red wigglers (the best for this sort of endeavor) with a nest of shredded newspaper. He feeds them vegetable scraps, except tomato and citrus, as they are not acid loving. He leaves the top open and keeps a lamp shining on it to keep the light-aversive worms inside. He's having such good results in his garden he doesn't care about what might happen if the bulb burns out.

Elda Brown, Cobb MG Intern 2004
