

Second thoughts about worm composting

By Michael Maciarello

Special to the State News

Last December I wrote in this space about the effectiveness and environmental advantages of worm composting or vermicomposting using red wigglers (*Eisenia foetida*).

I subsequently received many excellent comments and questions regarding concerns and problems that people were encountering, which were addressed via the worm Web site (<http://cars.desu.edu/faculty/mmaciare/worms>).

Several readers wrote to comment that they were reluctant to use vermicomposting for fear of introducing a non-native and potentially invasive worm to their garden, or potentially introducing a devastating worm disease that will decimate the population of native earthworms.

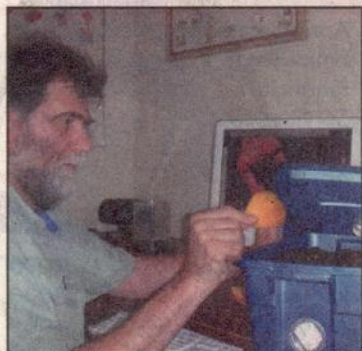
These are perfectly legitimate concerns, but usually not when it comes to earthworms. It would, however, be wonderful if casual gardeners would take these considerations into account when introducing exotic plants.

The worms native to the northern part of North America were wiped out in the last ice age, which ended more than 11,000 years ago. European colonizers probably introduced the red marsh worm (*Lumbricus rubellus*) and the night crawler (*L. terrestris*) about 400 years ago in the ballast of ships or in the root balls of plants they brought with them. Europeans also introduced the plow, which greatly devastated the last vestiges of a native worm population in the southern parts of North America.

Like most immigrants to this country, the red marsh worm and the night crawler found unparalleled opportunities and thrived. They have altered our environment and occupy a critical niche in the ecosystem. They recycle or reuse the basic materials that plants and animals need to survive. By eating this waste, earthworms help to decompose the material into smaller, simpler parts that can be reused by other organisms.

Without this process of decomposition, the basic chemicals of life would stay locked up and unavail-

Garden Tales



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The author of this article keeps a vermicomposter in his office to dispose of organic wastes.

able for use by other organisms. Red wigglers, similarly, help to break down organic matter in the vermiculture bin. Red wigglers, however, are not good soil survivors, requiring an organic content rarely found outside of your backyard compost pile. Also, it is unlikely that they would be able to withstand the temperature of the garden soil in the summer if they were accidentally introduced with the compost that they produce.

As to introducing diseases, worms are subject to very few diseases, so few in fact, that it is commonly stated that they are the only disease-free organisms on the planet. The bacteria fostered in their gut and excreted with their castings are benevolent and produced in such overwhelming numbers that disease-producing bacteria find life very difficult in an earthworm environment.

While it does make perfect sense to carefully consider the ramifications of introducing a species to a new environment, red wigglers are usually always present in cold compost piles already. More information on vermicomposting or worms as invasive species is available at the worm Web site.

Editor's note: Michael Maciarello is with the department of agriculture and natural resources at Delaware State University.

The Downstate Daily

Delaware State News, Sunday, June 1, 2008

