

## Research shows compost a viable growing medium

Scientists at the University of Florida's Indian River Research and Education Center in Fort Pierce conducted a study that shows compost can effectively replace peat as a growing medium for some potted perennials.

The research was the continuation of a successful study on compost's effect on vegetable production in the field, according to Dr. Sandra Wilson, an assistant professor of environmental horticulture with the university's Institute of Food and Agricultural Sciences. Wilson and her colleagues wanted to determine if compost could also be used to grow ornamental plants — specifically perennials — in the greenhouse. "The one huge gap that we didn't have any information on was perennials," she explained.

**'WE'RE HOPING THE NURSERY INDUSTRY WILL CATCH ON TO THE ECONOMIC ASPECT [OF COMPOST].'**

Mexican heather (*Cuphea hyssopifolia*), a common perennial found in many landscapes, was used in the experiment. The plants were grown in pots containing different mixes of commercial soilless media and compost made from wastewater sludge and yard trimmings. The mixes contained either 25 percent, 50 percent or 75 percent compost. A control without compost was also studied,

as well as a container comprising 100 percent compost. "We tried to find a window to see how much compost we could add to the media without sacrificing the quality of the plant," Wilson said.

The research showed plants grown in a mix heavy in compost or plain compost were just as healthy and vigorous, although they were a little smaller than plants grown in a solely peat-based medium, Wilson said. Mexican heather grown in media comprising up to 50 percent compost performed the best. They took just as long to reach a marketable size and appeared indistinguishable from the plants grown in a traditional medium. "Even the plants grown in 100 percent compost were marketable," she said. "They looked good and they looked healthy; they just weren't as large as the other plants."

Using compost as a growing medium has several advantages, Wilson explained. First, it makes use of a readily available product. "It's a product we have lots of, and we need to find a home for it," she said. The alternative medium also would cut down on the mining of peat from environmentally sensitive lands. Finally, compost is less expensive than peat. "We're hoping the nursery industry will catch on to the economic aspect [of compost]," she said.

Switching to media containing compost does have drawbacks, however. "We're asking [growers] to make a huge production change," Wilson said. "[Using compost] would require them to change everything from irrigation to fertilizers." Growers may not be willing to make such a large initial financial investment, she said.

The quality of compost available to growers is also extremely important because it could affect the plant's quality, Wilson explained. "Our compost is really good here," she said. "Universally, you can't say it's all good." Growers should test the compost in their area to make sure it's of an exceptional horticulture grade. (For more information, see "Analyze This" in the June 1, 2000, issue.)

Still, Wilson said compost is a viable alternative to peat-based media, and she is working to educate nursery professionals on its benefits. In addition, Wilson is continuing her research on other perennials, as well as comparing how compost performs with different irrigation systems. Plants being used in the experiments include angelonia (*Angelonia angustifolia*), Bolivian sunset (*Gloxinia sylvatica*), golden globe (*Lysimachia congestiflora*) and 'Indigo Spires' salsvia (*Salvia* 'Indigo Spires').



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