Composts vs. peats: composts win

by RON HALL/ Sr Editor

Composts can improve soils and the establishment of turfgrass, including turfgrass for athletic fields and putting greens, says soil scientist Dr. Ed McCoy.

In fact, research suggests that, in some respects, composts out-perform native peats, a more traditional and widely-used soil amendment.

Composts are mixtures of decomposing vegetation or other organic materials. They're manufactured from a variety of organic waste sources, many of which previously would have been hauled to landfills.

Like peats, their primary function is to add organic matter to soils. Organic matter, explains McCoy, "buffers" turf from the environmental demands placed on it.

But very real physical and chemical differences exist between native peats and composts, says McCoy, an educator and researcher at The Ohio State University.

Composts have:

- less organic matter content than peats,
- finer texture than peats,
- lower cation exchange capacities, and
- higher levels of soluble salts. (This may not be as big a problem as it seems if irrigation leaches the salts through the soil.)

McCoy has, for several years, been testing composts, all of which have different characteristics although not, obviously, as broad as their differences with peats.

He's learned that composts: increase soil organic matter, reduce soil bulk density, increase the infiltration rate of heavy soils, and they can "assist" in suppressing some turf diseases.

While composts are increasingly being used to amend soils of home lawns and athletic fields, their use in sand USGA-specification putting greens is still being investigated.

"There's a real concern that these composts—with low organic matter contents (relative to native peats) and fine textures—may not perform suitably in a situation such as a putting green where we have to have very rapid water drainage, rapid infiltration, and we want to maintain large pore openings," says McCoy.

To help shed light on that concern, McCoy tested six rootzone mixes: three contained composts and three used native peats. He blended the six amendments—at one percent and three percent by weight—with sand to produce USGA-type rootzone mix.

He packed 12 inches of each mix into identical columns, and, by using a layer of coarse material, created a perched water table in each column. Then he seeded each column with identical, and recommended, rates of creeping bentgrass.

Ed McCoy sees more use in turfgrass for composts.

The mixes containing the composts produced better germination and early growth than the mixes containing the peats, says McCoy. Also, the mixes with composts were significantly more permeable.

During drought and traffic tests the turfgrass growing in the compost mixes performed at least as well, and often better, than turfgrass growing in the peat mixes.

"I've had lots of surprises working with compost. It seems to be performing very well," says McCoy. "I think there's a real opportunity for the use of those materials (composts) in the future."

McCoy spoke at the OSU Short Course earlier this year from which this report was compiled. □

Landscape certification: coming to your state?

Six state and regional landscape associations are looking into the Certified Landscape Technician tests being used in California, and 13 more states have already adopted a similar test.

Landscape associations representing Utah, Texas, Colorado, Illinois, Wisconsin and Maryland/Virginia/D.C. were on hand when the California Landscape Contractors Association administered its CLT test earlier this year.

John Riffel and Eric Schultz of the Associated Landscape Contractors of Colorado express enthusiasm about certification as a change agent. "It's definitely helped our industry," they say. "We're starting to see the effects on the commercial side, and we expect the demand for CLTs in the residential markets will follow."

The CLT test was developed 13 years ago, sold to the Associated Landscape Contractors of America two years ago, and has grown each year.

"This is our best test ever," says Henry Buder, CLCA's state

Barefoot buys Hydro Lawn

Barefoot, Inc., announced in mid-July that it had bought Hydro Lawn, Inc., based in Gaithersburg, Md.

Barefoot is the nation's second-largest lawn care company with expected revenues of about $130 million in 1996. The company reported revenues of $95 million in 1995.

Hydro Lawn was founded 24 years ago by Jerry Faulring, one of the founders and the first president of the Professional Lawn Care Association of America (PLCAA). Faulring, who has been involved with a plant nursery the past several years, was unavailable for comment.

Barefoot president and CEO Patrick J. Norton says: "Hydro Lawn is another example of Barefoot acquiring a quality company to add to its portfolio of premier companies." Hydro Lawn had revenues just under $4 million in 1995.

The acquisition adds to Barefoot's customer base in the Washington, D.C. and Baltimore market areas. It reportedly has several other operations there. Barefoot has 53 company locations and 46 franchise locations, primarily in the central and eastern United States.

Hydro Lawn is just the latest of a string of lawn care operations to be absorbed by either industry giant TruGreen/ChemLawn (1995 revenues of $578 million) or Barefoot which is based in Worthington (Columbus), Ohio.

Early in 1995, Barefoot acquired the customers of 11 northern lawn care branches of Orkin Lawn Care. A year earlier, it purchased seven Lawnmark locations in New York, Vermont, and Maine. □

certification test chairman. "In fact, we simply couldn't accommodate the demand, and reluctantly had to turn away several applicants. For the last two years, the tests have consistently sold out."

The ultimate goal, says CLCA state certification committee chairman Dave Wolkenhauer, is to create a recognized standard. He was among representatives from 15 states who was responsible for writing the test.

"We wanted to make the test more accessible and more consistent, and to offer more options for test-takers," Wolkenhauer explains. "This restructured format allows for more specialization as well as continued growth of the program."

California's construction test received the biggest makeover this year. The committee scaled it back from two days to one and renamed it the landscape installation test. Problems on irrigation, carpentry and concrete were deleted from it because, beginning this fall, separate certifications in carpentry and concrete will be offered.

"This new format is more flexible and therefore more easily adaptable to other states," says Kim Heckes of CLCA. "But not every problem or even every test is appropriate for all locations." For example, Illinois and Wisconsin, two of the states set to launch CLT programs this year, will not offer the irrigation test because it is not an issue in their climate.

For more information, call Heckes at (916) 448-2522. □

Bang! You're disease-resistant

Herbicide-resistant bent was first; disease-resistant tall fescue could be next 'shot from a gun,' if Scotts researchers are on track.

by JERRY ROCHE / Editor-in-Chief

Using a "gene gun," researchers at The Scotts Company believe they can produce brown patch-resistant tall fescue grass—soon.

"We think we'll have a genetically-engineered tall fescue seed that is absolutely brown patch-resistant in the next year," says Kevin Turner, manager of seed production and research at the Scotts facility in Gervais, Ore. "We believe we'll be able to make it available [to buyers] within four years."

The "gene gun," invented by Dr. John Sanford of Sanford Scientific Inc., can deliver DNA into turfgrass and thus improve the turf's desirable characteristics. Scotts and Sanford Scientific signed a cooperative agreement earlier this year, which led Scotts to prepare a dedicated genetic engineering laboratory.

Genetic research will be conducted at the Dwight G. Scott Research Center in Marysville, Ohio. Initial work on the program was directed by Dr. Virgil Meier, but Dr. Lisa Lee will now assume its reins.

Dr. Lee and a Rutgers University research team used the gene gun to develop a bentgrass that is resistant to a widely-used weed control product, making it possible to selectively control most weeds without affecting the bent.

"We are extremely excited about using this technology," says Dr. John Neal, who is Scotts' vice president for research and development. "Employing genetic engineering will allow our researchers to add desirable traits as well as speed up the process of turfgrass variety development."

Scotts estimates seven years to create and market a genetically-improved turfgrass, compared with 12 to 15 years without genetic engineering. □