

Turf Grass TRENDS



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New uses for compost are being found

by Christopher Sann

Uses for the composted final products of the microscopic break down of animal manures, agricultural plant residues, and other organic wastes are as many and as varied as astute minds have been able to devise in the several thousands of years that man has been stockpiling these materials. To the long list that includes soil amendments, growing mediums, plant protection materials and insect and disease protection, please add another: bioremediation.

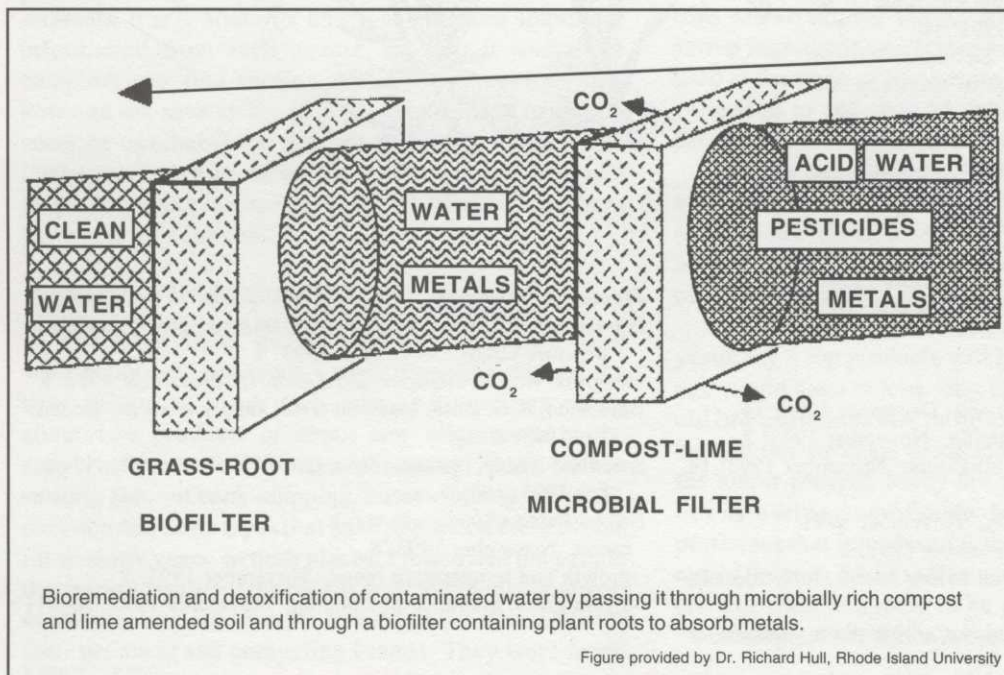
The use of compost materials in bioremediation involves the detoxification of contaminated soils or waters using the structural as well as the biologically active portions of compost to eliminate carbon based petroleum, pesticide, or mine wastes from the environment.

Old coal mine waste waters are cleaned with the help of compost

Hundreds perhaps thousands of old coal mines dot the Appalachian mountain regions of the East, spewing thousands of gallons of contaminated acid waste waters into the local streams and rivers that feed the Chesapeake Bay. Biologically active composts are layered with limestone to form the bed of remediation marshes to detoxify the mine runoff and leachings from these abandoned mines.

The limestone layer neutralizes the acid of the wastes while the microbes in the compost detoxify the carbon based toxins within the waste stream. Once this has been

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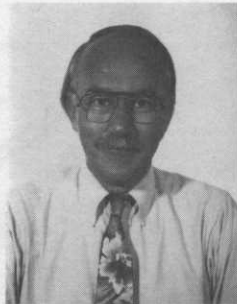
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The indexes

Tools of the trade

by Juergen Haber

As the future rolls toward us, we find that information is a tool that can supplant real tools. If we have the right information, we may not find it necessary to go out and take that shovel to dig that hole.



Naturally, we at *Turf Grass Trends* tend to be a little biased about information since we're in the information business. We've been in the information business since 1992 and we've accumulated quite a bit of useful information up until now. At the 1994 Green Industry Expo, held in St. Louis in November, we met a number of subscribers and the refrain seemed to be that many used *Turf Grass Trends* as a

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accomplished the plants that make up the vegetative portion of the marshes can remove many of the heavy metal and mineral contaminants prior to the water being released, ultimately to end up in the Chesapeake Bay.

Contaminated soil is cleaned with compost

In a demonstration project for the government, contaminated soils that were excavated from the areas around leaking underground petroleum tanks are mixed with uncontaminated soils from the same site and the mixture is then built into compost piles using spent compost. The spent compost is used as a bulking agent as well as a reservoir of carbon eating microbial populations. Once the soils have been properly composted the remaining product in an excellent uncontaminated soil mixture.

Up until recently, the contaminated soil from leaking

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Three years ago, one would have been lucky if one could find more than one producer or supplier pushing biological or bio-rational pesticides. Today it seems like just about every major player or supplier is either working on or is marketing at least one new bio-based product or product line.

Many of the front-line producers of bio-based materials of three years ago have larger displays with many more people gathered around. These same producers are introducing second and third generation bio-based materials

reference tool. We ask our printer to punch it for a three-ring binder and the back issues order chart on the opposite page offers an attractive binder that will hold more than a year's worth of issues of *Turf Grass Trends*. The readers we met at the Expo verified our ideas: they do use it as a reference tool.

Organizing information in print in a traditional way means presenting it as an index. We decided that a cumulative articles index was one way to do that. It appeared in the October issue.

We've also presented the 1992 subject index in the December issue.

In this issue we're presenting the complete 1993 subject index.

Since 1994 was the first year in which we published every month, the 1994 index is necessarily much longer. We hope to be able to give our readers the 1994 subject index in the February and March issues. ■

underground tanks was either trucked to a hazardous waste landfill or if it was too contaminated it was allowed to sit on-site, while the majority of the petroleum compounds volatilize into the atmosphere with the remainder hopefully subject to decomposition by native microbes. But because the contaminated soils are predominantly very dense subsoils with few native microbial flora or fauna, this technique has been hit or miss at best.

This new procedure takes advantage of the extensive knowledge on composting that these providers have developed over the years of supplying a precise compost to agriculture. The spent agricultural compost is consistent in quality and biological activity, predictable in its response to varying levels of contamination, and available in sufficient supplies that the process hold out an excellent chance of providing an inexpensive cure for the hundreds of thousands of leaking underground tanks that are a ticking time bomb for our groundwater and surface drinking water supplies. ■

that offer increased efficacy over their previous products or are headed into new and promising directions.

The message is loud and clear

The message is loud and clear for those of us that may not have been paying attention these last three years. The revolution is on. The new products are here. This new direction is just the first of many steps in a journey that will take the turfgrass management industry through a generational change. Twenty years from now the industry will have changed so much that we won't even recognize it. ■