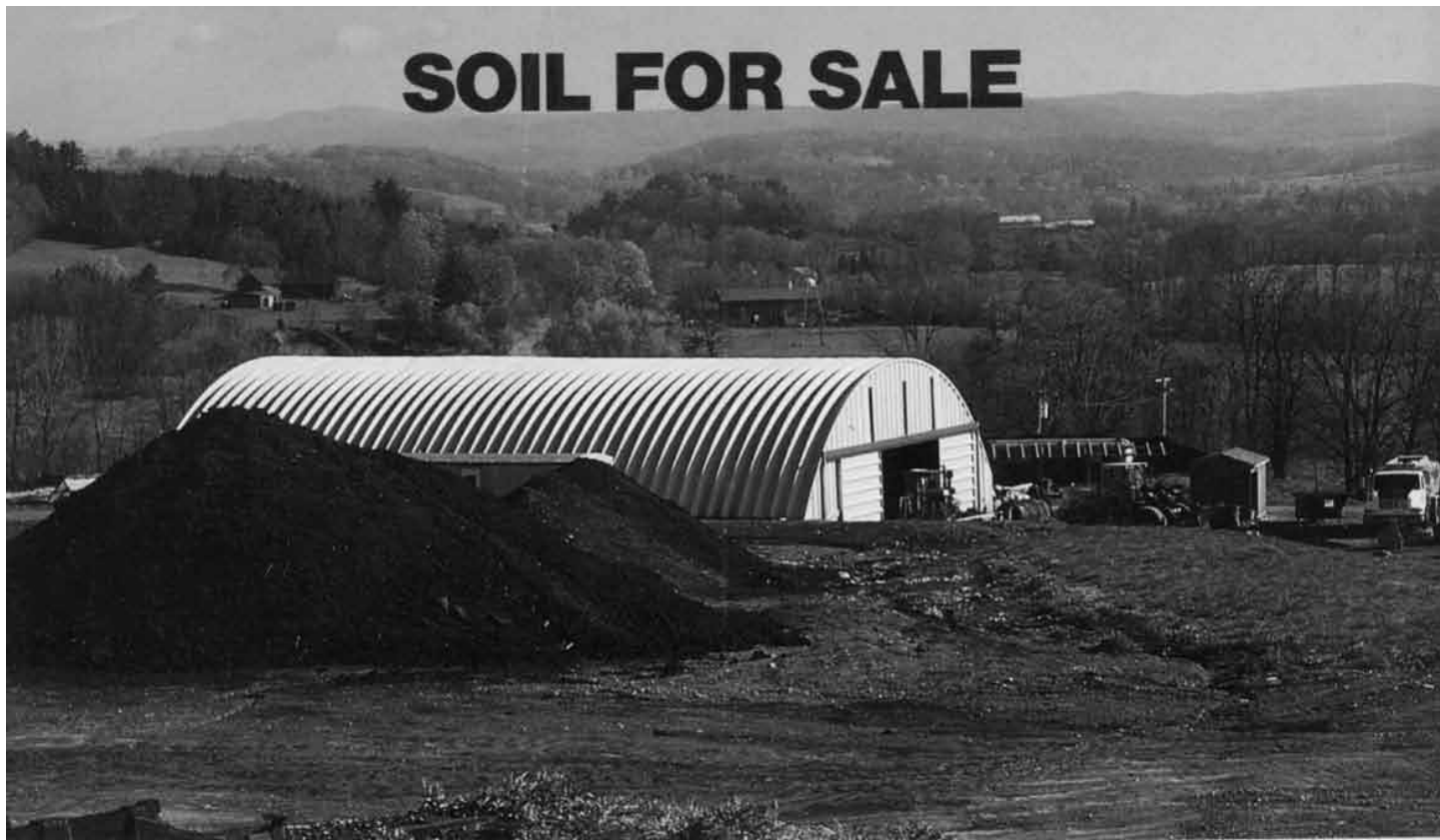


SOIL FOR SALE



Moody Hill Farm transforms unwanted wastes into valuable compost and topsoil products

BY JOHN WALTER
CONSERVATION EDITOR

U get paid to take this stuff," says Karl Hammer as he plunges his hand into a pile of one of his new compost "recipes" and pulls out a sample. None of this "stuff" looks like what it used to be—horse and cow manure, yard wastes or wood chips. The piles, in various stages, are decomposing into an earthy substance that smells like freshly turned soil. And soon these materials will be a product that can be marketed to garden stores, landscapers, horticulturalists and farmers—both organic and conventional.

The economics of composting at Hammer's Moody Hill Farm in eastern New York State begins with a "tipping fee." Food industries and municipalities, which would have to pay a higher fee to have wastes taken to a landfill, pay the farm rent for a dumpster, as well as a hauling fee. Dairy and horse farms short of land to apply manure are other tippers.

At the farm, Hammer mixes materials that are high in soluble nitrogen, like manure, with those that are high in fiber, such as the leaves and wood wastes. The

mixes are spread into rows, turned occasionally and monitored for pH, oxygen content and temperature. The composting process takes 12 to 20 weeks. Finally, the product is screened and then bagged, shipped in bulk, or blended with other materials.

Prime screened compost sells for \$18 to \$27 per cubic yard currently, with discounts on volume. The price of a 40-

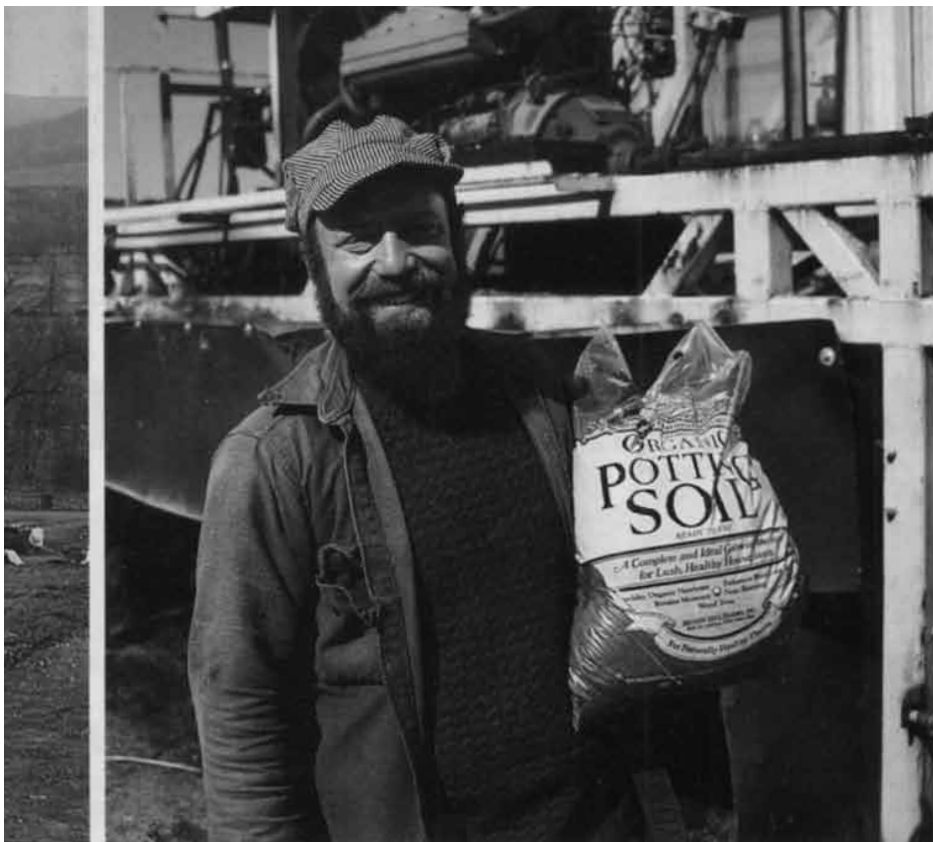
pound bag is \$2.10; a 25-pounder, \$1.45.

Another of Moody Hill's products is a homemade topsoil, which is created by mixing one part compost with four parts subsoil that's mined from an old gravel pit on the farm. The farm's organic potting soils—about half compost and half other materials, including peat moss, plant wastes and rock powders—are sold for \$50 or more per cubic yard.

Photographs: John Walter

A hoop house at Moody Hill Farm is built atop a pile of compost and manure. Heat from the pile is the sole source of heat in cold weather.





Left: Screened compost is moved inside for bagging. Above: Karl Hammer, one of the nation's leading compost entrepreneurs, shows off his organic potting soil—a mix of compost, plant wastes and rock materials.

Other composting services provided by Moody Hill Farm include a spreading service and consulting. The farm also produces 300 acres of grain and hay, as well as extended-season hothouse vegetables for specialty markets.

The whole composting operation is highly mechanized. A 210-horsepower windrower turns long rows of compost. A bulldozer is used for "housekeeping,"

after the finished product is moved to a building where it is screened and bagged on an assembly line. And straight trucks haul in fresh wastes, beginning the recycling loop again. But rather than a manufacturing enterprise, Hammer thinks of the operation as agricultural. "Composting is mostly a biological, not a mechanical process," he says. "Compost is a dynamic material. It's alive." **SF**



One of the farm's more than 30 lettuce varieties is grown in a homemade soil block.

Composters look to expand their market niche

Most farmers who compost probably have a reason for using the practice other than an economic one, says Tom Richard, a Cornell University agricultural engineer who has long studied the practice and costs of composting. And in New York, the typical composter probably is a dairy equipped with a front-end loader and manure spreader, Richards says.

But some composters, like Karl Hammer at Moody Hill Farm, are finding new uses for their products and services, and getting into composting in a big way.

Hammer, for example, has been working with a grant from the state of New York to develop a compost replacement for sphagnum peat moss as a horticultural growth medium.

"Right now, I have about 18 different recipes in mind," Hammer says.

A new research frontier for composting is the capacity of the material to suppress certain soil pathogens. Turfgrass, fruit, vegetable and small-grain growers, as well as organic farmers, are increasingly using compost as a natural fungicide, according to Craig Holden, a Minnesota farmer who's developed a commercial composting business.

Holden's Sustane Corporation in Cannon Falls, Minnesota, sells more than 10,000 tons of processed product annually. The fertilizer value of compost is well understood by his long-time loyal customers, neighboring corn and soybean farmers, he says.

"We've proved that these farmers get 10-15 bushel yield increases in corn 60% of the time."

But the greatest growth potential for compost is with its capabilities to control diseases in certain crops, he believes. Holden's company conducts its own research, but also is working with researchers at land-grant universities, including Cornell.

Use of compost to control the soybean cyst nematode and sclerotinia in canola are two new areas of research, Holden says.

"We're really excited about the disease suppression attributes of these materials," he says. "This value is potentially much greater than the value of the NPK in the material. The upshot is that we're now looking at a fungicide rather than a fertilizer market." ■