



Michigan Compost Markets

A project to create composting opportunities

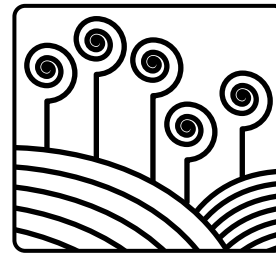
Sports Turf

Compost is already known to many as a wonderful soil additive for the home lawn and garden. Now, professional contractors and groundskeepers are finding compost increasingly attractive in the successful construction of sports fields. Compost, as an important component of soil fertility and a secret weapon in disease suppression, can provide cost effective tools for the long-term health and vigor of turf for athletic fields.

The potential demand for compost in the sport turf market sector is small when compared to others such as landscaping. Michigan State University researchers estimate that 10% of the products used to construct a golf course or athletic field (up to a 6" depth) consists of organic material. This equals approximately 150 cubic yards of organic matter for a 100,000 square foot field. Although few of the contractors that build and maintain golf courses and athletic fields now purchase compost for sports turf, the volume and value of this sector should expand substantially as compost acceptance increases.

Compost can substitute for peat products in topdressing if it has proper particle size and water holding capacity.

Both performance criteria for turf and competition for contracts are high in the sports turf development business. For this application, contractors look for specific characteristics in an organic amendment: consistency of the compost product, grain size, decomposition rate, and absence of any offensive odor.



Markets Fact Sheet Series

Compost Markets Assessment

Major markets for composted yard clippings include landscapers, nurseries, sports turf, topsoil blenders, home gardeners, agriculture, and emerging specialty uses. Users of traditional soil products are discovering the benefits of compost now that Michigan's ban on yard clippings landfilling is making quality compost more readily available. This fact sheet series explores the unique concerns, practices and potential of each market.

Market segment description:

This sector includes construction and maintenance of golf courses and athletic fields. Although few companies now use compost, significant expansion is anticipated as compost acceptance increases. Performance standards and competition may be high as facility development is costly.

Challenges to overcome

Challenges for this market segment include the development of effective applications whose results can be demonstrated in field settings. Reproducibility of results is extremely important when working with this market segment, because sports turf has strict quality standards and performance criteria.

Compost use

- Construction mixes for new fields.
- Topdressing mixes for fairways, fields, and other turf.
- Rootzone mixes for construction.

Breaking into this market segment:

Compost operators interested in reaching this market must determine the specific effects desired from purchased soil amendments by golf course superintendents and operators of other athletic facilities. Through education and providing compost samples to potential clients, compost producers will help potential buyers observe firsthand the benefits of compost application for sports turf.

Industry Examples:

One Michigan golf course makes compost from its own yard trimmings. They screen the final product and use about 20% of the compost as a component in the soil used for greens construction (the rest is used for flowerbeds and mulch). Savings related to compost use are estimated at \$1750 each year for replacement of topsoil and peat moss.

Finished compost is screened for use on-site as a soil amendment for flowerbeds and as a component in the soil used for greens construction. Compost used for these areas has been screened because it must have a very small grain size. There have been no problems associated with using compost at this facility. Experiments are presently being conducted at

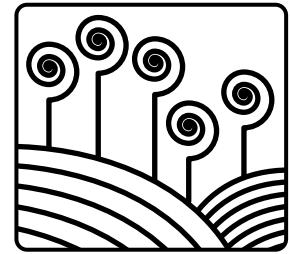
Quality requirements for the Sports Turf Market

The sports turf market is very specific about the types of materials that are acceptable. Quality specifications for topdressing include particle size of the material, the water-holding capacity of the blended materials and nutrient availability of the finished product. Restrictions regarding substitution of compost for peat moss are related to the water holding capacity of the compost and the rate at which it decomposes. Golf courses need to drain well enough to permit play on a wet field, yet hold enough water to support growth of grass.

this facility to determine whether compost can successfully be used as a component of a topdressing mix.

Typical dollar value:

Surveys completed for the Michigan Compost Markets project found that the cost of soil products sold to sports turf contractors ranged from \$11 to \$28 per cubic yard, reflecting the mixing of sand and peat products frequently used now.



Markets

Application information

Golf Course Turf:

Before beginning the transition from peat moss to compost, analyze nitrogen, phosphorus and potassium levels as well as silt content of the compost, important when matching each batch of compost with a particular area of the course. Mixes used for roughs and fairways can have as much as 15-20% silt, and consist of 40% compost and 60% sand.

Use one inch of compost tilled to a depth of five inches, equivalent to 20% by volume. For poorer soils, a two-inch layer of compost is recommended.

Lawn establishment:

For lawns to be seeded or sodded, apply one inch of compost tilled to a depth of five inches, equivalent to a 20 percent application by volume. A two inch layer of compost is recommended for poorer soils. Compost helps the grass seeds germinate quickly and provides balanced nutrients for the first year of growth.

Flowerbed planting

Landscapers presently using compost report success with a mixture of topsoil combined with 25-30% of compost incorporated into the upper 4 to 6 inches of growing medium is recommended.

Project Partners

Resource Recycling Systems, Inc. (RRSI)

Center for Microbial Ecology, Michigan State University

Southeast Oakland County Resource Recovery Authority (SOCRRA)

*For information call:
RRS at 734-996-1361*

Funding provided by

Michigan Department of Environmental Quality's Protecting Michigan's Future Bond Program.

