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# Composting

### **Quality assurance** seal proposed by **Composting Council**

By Ken McEntee

The Composting Council is moving forward toward the adoption of a national seal of quality insurance for compost products.

The program would allow the use of a logo for products that meet certain criteria.

Rod Tyler, field representative for the council, said producers would have to do three things in order to qualify for the certification:

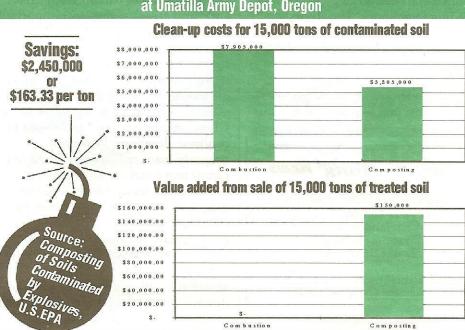
- Do regular tests on their compost. The frequency of testing would depend on the amount of compost they produce. Tyler said 80 percent of compost producers don't test their products.
- Use testing methods as defined by the Composting Council. A manual of composting testing procedures was the result of one of the council's major research projects. The object of this is to get all producers to use the same testing procedures. Without universality, test results don't mean much.
- Provide directions for use on compost products. Tyler noted that even poor-quality, immature compost may have an appropriate use and producers need to give guidance about what is appropriate for each particular product.

Tyler said a \$500 fee would be paid

(See Logo, page 7)

### Combustion vs. Composting Explosives

at Umatilla Army Depot, Oregon



#### arketability of compost **Blending improves m**

By Ron Alexander

lending compost to create value-added products has dramatically increased along with compost supply and the need to increase profits at the 'back end' of composting facilities.

Blending is becoming commonplace with composts produced from various feedstocks and has been used as a method to market composts which may not possess the qualities that allow it to be widely marketed as is (unblended).

For example, composts which are not fully stabilized and those which contain foreign matter or inerts are often blended in soil mixes to

improve their marketability.

But aside from the ability to improve the marketability of some less-finished products, why has blending become so popular? There are two major reasons.

(See Blends, page 5)

#### **Highlights**

- EPA, USDA release draft strategy on animal waste
- Update: Banished biosolids plant to relocate
- ASTM adopts pallet standards

#### **Banished**

(From page 3)

vacation date.

"There is no physical way I can relocate by the end of the year," she said, adding that legal action is possible against the people that forced her out of town.

As reported last month, odor complaints at Comp-Lete led to gunshots and the threat of further violence even though DEP inspectors and even the next door neighbor said they never detected any odors coming from the plant.

Legal action could be tricky, Zendel said. One of the county's three judges is the father-in-law of the resident who led the attack against her plant, she said.

Meanwhile, the product made by Comp-Lete continues to receive good reviews.

The U.S. Army Corp. of Engineers last month committed to buy 30,000 tons of the compost for a dike project near Lake Okeechobee and Walt Disney World officials continue to consult with Zendel about a new composting facility they are planning.

compost is primarily being used by larger growers which are blending their own growing media and to some extent by companies which manufacture growing media and sell it to nurseries.

Compost can be used for a dual purpose, both as an organic substrate to improve moisture-holding capacity and as an additive to improve drainage. Compost is primarily used to reduce the amount of peat or bark products used in a growing media, but will also supply macro and micronutrients and has been shown to control several soil-borne diseases.

Typical compost inclusion rates in growing media vary from 10 to 50 percent with the most commonly recommended rate being 20 to 33 percent.

#### **Blended soils / manufactured topsoils**

Today, commercial and residential customers are more knowledgeable about plant growth than in the past.

They understand that poor quality soil will lead to slower plant establishment and growth and may even lead to the ultimate death of the plants we're trying to grow.

The importance of organic matter and microbial populations in soils has

(See Blends, page 6)

#### **Blends**

(From page 1)

One is the need to increase profits and the other is to increase sales volume. By diversifying your product line both can be accomplished and product efficacy can be improved.

By blending compost with other soil amendments, soil and aggregates, products can be customized for specific applications and niche markets.

#### **Blends for growing media**

Compost has been used successfully in the production of various greenhouse and container crops. The use of compost as a growing media component is probably the most heavily researched area of compost utilization.

Research has been completed on various types of compost-including yard trimmings, biosolids, municipal solid waste (MSW), mushroom soil and animal manure composts. In this application, successful compost usage is heavily dependent upon compost quality.

For that reason, this is not a market to approach unless a consistently high-quality product is being produced.

In commercial applications

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#### **Riends**

(From page 5)

become better understood, helping customers understand why certain soils are more productive than others are. By blending lower-quality soils with compost, an excellent alternative to virgin topsoil can be produced.

The production of blended soils have been found to be most popular where the landscape industry is more sophisticated and well established.

In other words, where the agricultural and horticultural infrastructure and customers understand that it is difficult to purchase acceptable 'virgin' topsoil, blended soils have gotten a strong foothold.

Although compost can improve soil quality in a variety of ways, the most dramatic improvements are often seen in sandy soils, which are droughty and low in organic matter

and microbial population, and in fine textured soils, which are easily compacted and slow to percolate water.

When soil quality is improved, plant root growth is improved, leading to healthier plants and better resistance to environmental and cultural stresses. An added benefit to the soil blender is that composts often darken the color of soils, making them more aesthetically appealing to endusers.

Compost has been used at a 10 to 50 percent inclusion rate, while the most common inclusion rates are 20 to 33 percent. The application rate is based on soil and compost quality and the particular use for the soil.

#### Golf course, sports turf blends

In 1993, it was estimated that between schools and parks as many as a million acres of athletic fields existed in the U.S. along with more than 14,000 golf courses. If these estimates are accurate, where does that put us today?

Obviously, with all of this highly maintained acreage, excellent opportunity exists for compost usage.

For years the United States Golf Association (USGA) only specified the use of peat products for use in their green blends, but currently their specifications allow the use of other soil amendments, including compost, as long as the final mix meets their performance specifications.

Although most athletic fields and golf course fairways are still built with virgin topsoil, or topsoil amended with soil amendments, more and more sports surfaces are being constructed using specialized mixes which are better suited to resist compaction.

Most newly constructed, high quality sports surfaces, like golf course tees and greens and college

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and professional football fields, are constructed on sand and peat-based mixes that contain just enough organic matter to assist in moisture and nutrient management. Although these compaction-resistant mixes function extremely well, they are also extremely expensive to construct and are difficult to manage (nutritionally).

For these reasons, soil - and not sand-based blends - are typically used in constructing most park or high school athletic fields. However, whether manufacturing a sand or soil-based blend, high quality compost is becoming the product of choice.

Research performed by The Ohio State University has shown that an inclusion rate of 20 to 30 percent compost in blends primarily soil-based is optimum for turf establishment. However, in most sand-based blends used in athletic field construction, compost is blended with sand at a 10 to 30 percent inclusion rate, with the lower application rates being more prevalent.

The USGA recommends an organic matter content of 1 to 5 percent, with 2 to 4 percent being ideal in their sand-based root zone mixes.

#### **Bulk blending**

Blending is not just a precursor to bagging anymore. Compost blends are being marketed with great success in bulk form.

The applications and niche marketing opportunities are endless and can be seized by creative compost producers and marketers worldwide.

Should you consider manufacturing blended products for resale in bulk or bagged form?

That depends on many conditions, such as compost quality, availability of other blend components, current equipment, site conditions and competition as well as financial and market development goals of management.

Part 2 of this article series will discuss some newer compost blending opportunities that are becoming more

popular today.

The author, Ron Alexander, has been involved in compost marketing for more than 14 years as a sales person, sales manager and consultant. He is currently with Biocorp Inc. and R. Alexander Associates, based in Cary, N.C. He can be reached at (919) 388-0030.

#### Logo

(From page 1)

to the council to administer the certification program.

#### Biodegradable logo

The compost quality certification program is one of four major focuses of the council, Tyler said. The others are the development of a logo for biodegradability, a possible state chapter system and the development of centralized compost market

intelligence.

Shreds of plastic bags are a major problem for many compost facilities and there is a lot of confusion over which products real do break down. There is a demand for a certification program from manufacturers as well as compost producers, Tyler said.

"I was at a meeting of biodegradable manufacturers and they cried for us to do this," he said.

He said the council is drafting a program that will be ready for review by Nov. 4.

#### **State associations**

Currently there are 15 active state composting associations and composters in several other states are looking into the possibility of starting associations. Those associations are independent groups or are tied in with state recycling associations or

(See Logo, page 10)

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