



Composting News

www.recycle.cc

Council aims at proving its value

By Ken McEntee

A year after a major reorganization, the U.S. Composting Council finds itself once again at a crossroad.

Despite current growing pains and daunting challenges ahead, members of the newly-elected executive committee are optimistic that the council is moving in the right direction. The top priority now is expanding its membership, which includes proving the value of membership to people in the composting business.

At the council's annual conference, held this month in New Orleans, Sharon Barnes, of Barnes Nursery, Huron, Ohio, was elected president by the board of directors.

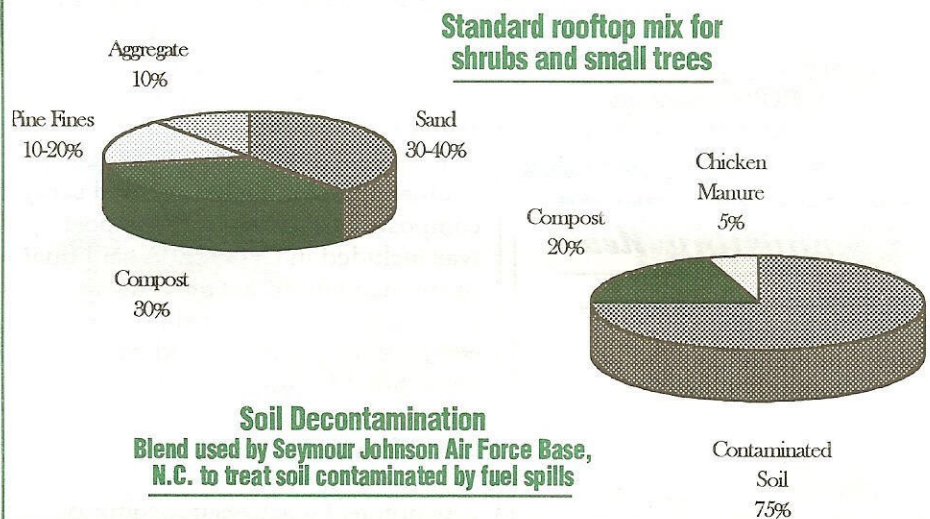
Since the council's reorganization in November 1997, a transition team appointed by the board has served as a quasi executive committee. Three members of the six-person transition team - including Barnes - were elected to the four-person executive committee:

- Jim McNelly, of Naturtech Composting Systems, St. Cloud, Minn., was elected vice president;
- Pat Byers, of the Palm Beach County, Fla. Solid Waste Authority, was elected treasurer. Byers moderated the transition team for the past year, serving as somewhat of an interim president.

(See Council, page 10)

Typical compost blends

Compost blends are growing in popularity. Following are two blends identified in the article below by Ron Alexander, of R. Alexander Associates.



Blending improves marketability of compost

By Ron Alexander

Part 2 of 2

Following is the second installment of a two-part article. The first part ran in the October 1998 issue of *Composting News*.

Blending of compost to create value added products is more popular now than ever. As is outlined in part 1 of this article, aside from improving the marketability of compost, blending compost with other products can increase profits in several ways.

One is by customizing products for specific applications in each market. Another is by diversifying your product line, enabling you to market

greater volumes of your product.

The first part of this article discussed blending compost to produce growing mixes (potting media), specialty turf mixes and

(See Blending, page 5)

Highlights

- Food scrap compost added to EPA buy-recycled product list
- Farms file suit over sludge application
- Kurtz is composter of the year

Sludge

(From page 3)

showing signs of distress. The leaves were twisted and distorted, and roots were showing signs of damage. Placement of sewage sludge on the land generally lowers the pH of the soil, but application of lime will raise the pH of the soil to levels necessary for plant growth.

For more information call Ed Hallman, Decker & Hallman, at (404) 522-1500.

• • •

Blending

(From page 1)

manufactured soils (general use).

This second part of the article will discuss the use of compost in manufacturing blends for various landscape applications, landfill

cover/vegetation and environment applications.

Landscape planter mixes

Landscapers have been the most avid users of compost for many years, using it in many applications and in all areas of the country.

Probably the most popular use for compost is in garden bed establishment and renovation.

Although compost is typically applied "as is" (unblended) and incorporated into the garden bed, in several states garden blend soils containing 20 to 40 percent compost are sold to establish or renovate garden beds.

High quality composts have also been used with much success in tree and shrub backfill mixes. In this application, soil is typically removed from the planting hole and about 25 to 33 percent compost (by volume) is added and uniformly blended.

The backfill mix is then placed around the tree or shrub in the planting hole and firmed around the root ball.

Many landscapers claim that the use of compost in backfill mixes has reduced the amount of plants replaced (because of death) on their landscaping jobs. This likely occurs because compost provides nutrition, improves the moisture-holding capacity of the soil and can assist in the control of soil-borne diseases.

Although many soils which are modified to improve turf establishment contain a 2 percent organic matter content (at most), soils modified for ornamental planting mixes should be designed to contain at least 5 percent organic matter.

By using compost as the organic matter source landscapers get added benefits, such as various micro- and

(See Blending, page 6)

The Original. The Best.

NEW MZA3250

WHEN IT COMES TO PROCESSING YARD WASTE, NOTHING COMES CLOSE. WILLIBALD'S ORIGINAL HORIZONTAL DESIGN KEEPS PROVING ITSELF DAY IN DAY OUT. HIGHEST OUTPUT, LOWEST COST, LEAST DOWNTIME.

FECON
Resource Recovery Equipment & Systems

MZA 3250: Mobile Organic Resource Processor
WILLIBALD

10350 Evendale Drive, Cincinnati, Ohio 45241 • Toll Free 800-528-3113 • Fax: (513) 956-5701 • E-Mail: fecon@fuse.net • www.fecon.com

© 1996 Fecon, Inc.

Blending

(From page 5)

macro-nutrients, a stabilized pH and a healthy supply of microbes.

Often these garden planter mixes contain a 25 percent to 33 percent compost inclusion rate.

At these inclusion rates many annual and perennial plants need no additional fertilization.

The compost used in these landscape mixes must meet the requirement of the crops being established. For instance, rhododendrons, azaleas and other acid-loving crops should not be planted using composts that contain appreciable amounts of lime.

Crops which are salt-sensitive, such as conifers, should not be planted with compost products which have a high soluble salt content.

Planting berms, which are used as borders in some landscapes and as

landscape focal points in others, can be constructed by blending existing soils with compost at a 25 to 30 percent compost inclusion rate.

In this type of mix, the soil is used for long-term stability of the raised berm.

However, in rooftop planter mixes, sand or a sandy loam soil should be used for stability.

Sandy soils can usually provide enough ballast for shrubs and small-sized trees, but it is much lighter than clay and silt based soils. In rooftop mixes, the weight of this mix must be kept to a functional minimum.

A standard rooftop mix for shrubs and ground covers should contain 30 to 40 percent sand or sandy soil, 30 percent compost, 10 percent to 20 percent pine fines and 10 percent of a light weight aggregate.

Where trees are to be planted in rooftop mixes, a good standard mix should contain 40 percent sand loam

soil, 20 percent sand, 30 percent compost and 10 percent pine fines. Pine fines are used in these outdoor mixes because they provide excellent long-term cation exchange capacity.

Similar to the rooftop planting mixes, large planter mixes (outdoor containers) should contain 60 percent sand, 10 percent pine fines and 30 percent compost.

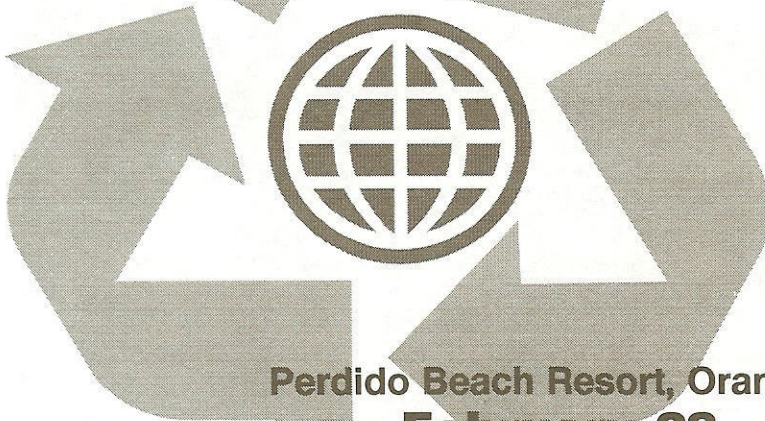
Landfill closure blends

In specific areas of the country compost is being used extensively to manufacture soil blends used for landfill closure. This application is most popular in areas where stockpiling of top soil has not been done during the initial excavation of the landfill.

Therefore, the typically-abundant supply of soil, used as landfill cover, is not available. Compost blends are more popular in landfill projects which have stringent closure

12th Annual Southeast Recycling Conference & Trade Show Summit

Building Strategy for the New Millennium



Join the experts in finding the best paths for solutions to today's complex recycling issues.

For information contact: SERC
P.O. Box 11468
Montgomery, Alabama 36111
334-277-7050 Fax 334-277-7080

Perdido Beach Resort, Orange Beach, Alabama
February 28 - March 2

The South's most prestigious recycling event!

requirements and require that high-quality vegetative cover be established.

Basically, if more stringent vegetation-related regulations exist, the more likely a company or municipality will invest in more expensive closure practices.

Various types of composts have been used in the production of landfill closure blends. The compost is primarily used for its ability to improve the physical structure of the existing soils and to improve the organic content in order to improve the establishment and long term growth of a vegetative cover. The compost is typically used at a 20 to 50 percent inclusion rate and is mixed with sand or soil, depending on which is most available in that specific area of the country.

Many construction firms that are involved in landfill closure have modified their closure specs to allow

the closure soil to contain compost. Often compost of lower quality are purchased for use in landfill closure mixes because they can be obtained at a lower price. In these cases, compost may be blended with soil and stockpiled or stock piled unblended to stabilize before seeding takes place.

Environmental applications

The use of compost in various environmental applications is one of the most intensive areas of compost research being pursued today. The high organic matter content and biological activity of compost makes it effective for use in a variety of environmental applications.

Indeed, for the past five years, the effectiveness of the composting process, as well as the application of compost to contaminated soils, has been shown to bind heavy metals and other contaminants, as well as degrade organic contaminants and

petroleum based materials.

The use of compost as a soil additive optimizes soil conditions, providing for microbial establishment and proliferation where accelerated degradation can occur.

Used to remediate petroleum-contaminated soils, compost can be used at rates of up to 50 percent, either with or without wood chips, as a means to aerate the contaminated soil, inoculate it with microbes and act as a food source for the microbes.

Seymour Johnson Air Force Base, in North Carolina, treated soils contaminated by fuel spills by blending 75 percent contaminated soil, 20 percent compost and 5 percent chicken manure.

Piles were turned mechanically to keep them aerated and were covered with a nylon tarp to help them maintain their moisture and

(See Blending, page 10)

Everyone Knows Money Doesn't Grow on Trees!

For many recycling businesses this old adage couldn't be more true. Participating in a **Regional Recycling Investment Forum** can prove fruitful for recycling businesses by connecting them with potential investors.

Regional Recycling Investment Forums provide an opportunity for expanding companies seeking new capital to present business plans to potential investors. The Forums also feature investment analysis of the recycling industry and new product and technology exhibits. Applications and business plans are due up to three months prior to the Forum event. Contact the Forum organizer in your region for more information.

Rocky Mountain Southwest:

March 29, 1999
Phoenix, AZ
Southwest Public
Recycling Association
Contact: Mitra Khazai
520/791-4069
www.commerce.state.az.us

West:

April 1999
San Francisco, CA
June 1999
Los Angeles, CA
Materials for the
Future Foundation
Contact: Coy Smith, 415/561-6530
www.materials4future.org

Northeast:

May 5, 1999
Boston, MA
Northeast Recycling Council (NERC)
Contact: Mary Ann Remolador
802/254-3636, www.NERC.org

Southeast:

August 23, 1999
Kiawah Island, SC
SC Recycling Market Development
Advisory Council
Contact: Ted Campbell
803/737-0477
www.state.sc.us/commerce/recycle

Midwest:

September 1999
Cincinnati, OH at the National
Recycling Congress
Mid-American Council of
Recycling Officials
Contact: Michael Alexander, NERC
802/254-3636, www.NERC.org



Sponsored by NRC's National Recycling Financing Initiative

and U.S. Environmental Protection Agency

www.nrc-recycle.org

Compost Equipment



Reel Auggie®

Sludge and Organic Compost Mixer

Call today for information on the Knight Family of Waste Handling Equipment

- Knight-Botec 4-Auger Compost Mixers
- ProScreen® Trommel Screen
- ProTwin® Slinger® Land Application Spreaders



KNIGHT
Industrial Division

KNIGHT-BOTEC

Brodhead, WI • 608-897-2131

Greeley, CO
970-351-0444

Blending

(From page 7)

temperature, thus optimizing microbial growth.

New environmental applications for compost include uses as a biofilter media component.

Biofilter media is a porous substrate which contains attached microorganisms. As air passes through the biofilter contaminants are transferred to the moist filter media where the compounds can be absorbed and/or degraded by microbes. Since compost has a high absorption capacity for organic and inorganic compounds, and supports high degradation rates, it is ideal for use in a biofilter media.

Compost is typically used at an inclusion rate of 25 to 33 percent, but can range from 5 to 40 percent.

Other ingredients of the biofilter media are bark, wood chips and ground scrap wood. The goal is to produce a media which has good porosity and water-holding capacity, and one which provides proper nutrition for microbial growth, uniform air distribution and one which does not readily shrink.

Compost and compost blends are also used in the production of erosion and sediment control mixes.

These mixes are typically placed on slopes of up to 2:1 at an application rate of 3 to 4 inches per layer.

Similar mixes are used to produce berms which are placed at the base of slopes to capture sediment.

When blends are used in these applications they are typically a homogenous mix of fine and coarse (woody fraction) compost particles, along with about 10 to 20 percent stone, bark, sand and/or gravel.

In wetland applications, compost is an excellent blend component because of its high organic matter content, moisture-holding capacity and microbial activity. However it is important to understand the compost's soluble salt and nitrogen content, as well as their relationship

to the plants to be established.

When developing wetland construction mixes it's important to develop a blend which has similar characteristics to the surrounding wetland soils. For that reason, manufacturing wetland mixes must be done on a case-by-case basis and it is difficult to provide general parameters regarding their construction.

Compost has been found to be an excellent replacement for various types of organic products in a number of horticultural, environmental and agronomic applications.

The use of compost in these applications has grown rapidly and its use in the production of additional types of blended products is expected to grow as well.

With compost's expanded usage into these newer applications, its benefits have become even better understood, increasing its innate

value as well as the value of the blended products.

Yet to produce value-added products that are effective in their specific applications, composters must perform their function with the attitudes and actions of manufacturers, not just waste managers.

This will allow for product efficacy and continued field success.

As you can imagine, once you know your compost product, the concept of expanding your product line to include blended products is much simpler.

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

Council

(From page 1)

• Matt Cotton, of Integrated Waste Management Consulting, San Francisco, who was elected secretary, was the only officer elected who was not on the transition team. Cotton had been elected to the board of directors just prior to the conference.

Barnes said the addition of a full-time staffer for the council is a top priority. Currently, executive functions of the council are handled by two part-time people: David O'Bryon, who serves as executive vice president through his association management firm O'Bryon and Associates; and Rod Tyler, the council's field representative based outside of Cleveland.

Board members have questioned whether the current staff is sufficient to do all the work necessary to run and build the council, yet are also concerned about whether funds are available to hire another staffer. At least one board member suggested hiring Tyler full-time, but Tyler said

such discussions were premature, especially since nobody has yet approached him to discuss the possibility.

Tyler also runs Green Horizons, a consulting firm.

The board has instructed the Finance Committee to review and possibly renegotiate new contracts with Tyler and O'Bryon. The result could be a juggling in responsibilities among the executives.

"The bottom line is that we want the people who are being paid to make sure the budget is met and we need the staff time to be used for the economic viability of the association," said board member David Miley, of Erin Screens Ltd., who chairs the Finance Committee.

Back to basics

Without additional revenues, the council's budget for the year will be between \$100,000 and \$150,000 - much tighter than the usual annual