



CompostUSA is a company focused on providing an economical, environmentally friendly and sustainable solution for managing wastewater residuals – “biosolids”. Currently, in the southeastern United States, the majority of biosolids are either land-filled or land applied. The land application of biosolids has however, created a hurdle in the form of the public’s perception of this widely used practice and adding these materials to our landfills compounds the problem of diminishing airspace for our solid waste.

In conjunction with Harvest Quest International, CompostUSA is introducing and implementing in the State of Florida the EPA recognized Modified Static Aerobic Pile (MSAP) composting method. This unique method of composting provides major environmental and economic benefits and results in the production of class ‘AA’ finished compost with excellent commercial value. CompostUSA is an affiliate of Florida Potting Soils, which has the reputation as “Florida’s premier source for custom blended potting soil.” Florida Potting Soils, Inc. has over thirty years experience in the horticultural, turfgrass and landscape industries and is uniquely qualified to put this environmentally friendly process and the resultant end products to good use.

With significant technical expertise and strong alliances, CompostUSA is positioned to become one of Florida’s leading residuals management companies.

The Modified Static Aerobic Pile (MSAP) Composting Method

There are currently three approved biosolids composting methods of which Static Aerobic Pile and Windrow methods are the most commonly used. Each method has its own unique set of requirements that must be met by the composter to stay in compliance with state and federal laws. Through many years of research, Harvest Quest International, Inc. has developed a proprietary 'organic catalyst', which accelerates and uniquely enhances the natural biological process of composting. The implementation of the organic catalyst, in the field of biosolids composting, has led to the development of the Modified Static Aerobic Pile (MSAP) Composting Method. The MSAP Method is a combination of both Static Pile and Windrow composting methods and provides many environmental and economic benefits. The major benefit of this method is the ability to largely eliminate the need for mechanical turning while still maintaining aerobic conditions and excellent pathogen destruction. Less windrow turning equates to less material moisture loss, higher temperatures for longer time periods, less odor production, less particulate discharge, less nitrogen losses through ammonia volatilization and less overall composting timeframe.

Essentially, a better quality compost is produced in less time and with less associated costs. In addition, the final compost has been shown to have increased numbers of beneficial bacteria when compared to those produced using more traditional composting methods.

- EPA recognized method
- Largely eliminates mechanical turning
 - Provides economic and environmental rewards
 - Mitigates odors and particulate discharge
 - Reduces composting timeframe





NEW COMPOSTING METHODOLOGY Using the Modified Static Aerobic Pile (MSAP) Method, windrow composting operations are conducted without the use of frequent turning (aeration). This provides a significant benefit, since windrow aeration is the source of most odor, VOC, ammonia and dust emissions. The MSAP method provides high-temperature composting of biosolids and bulking agents, with the natural action of the bacteria within Harvest Quest's catalyst drawing needed oxygen through the piles from the outside-in. As an added benefit, an undisturbed layer of ground woodwaste placed on top of the piles serves to both retain/repel moisture and act as a passive biofilter.

The EPA has traditionally viewed Static Aerobic Piles as engineered piles with man-made conveyances providing air (oxygen) movement. The MSAP method has demonstrated to EPA staff and to the compost industry that the use of Harvest Quest's catalyst working the piles from the outside-in is just as effective in drawing oxygen into the piles as is piping attached to a fan. The microbes within the catalyst multiply and move rapidly, initially populating the outer edges of the windrows. This microbial activity generates temperatures well in excess of 131°F. The microbes then work their way towards the center of the piles generating similar temperatures as they move. Conventional composting temperature profiles show an increase in temperature to a plateau then a gradual decline. Using the catalyst and the MSAP method the rows expected temperature increase is observed, but not the gradual decrease from the plateau. Instead, a steady state is maintained until turning or screening is carried out.

The Environmental Protection Agency (EPA) Region 8 approved the MSAP method for composting biosolids in 2001. This approval followed a year and a half of extensive testing by A1 Organics (A1) and Harvest Quest at A1's three Colorado biosolids composting operations. The MSAP method was approved as a composting method modification to the EPA's 40 CFR 503 Appendix B PSRP A. 4 and PFRP B. 1. A1 is the largest composter in the state of Colorado producing more than 150,000 cubic-yards of finished compost annually. A1 personnel were jointly responsible for developing the MSAP method and have utilized the process with great success for almost 7 years.

In addition, during the months of March through May 2003, Harvest Quest conducted a demonstration of the MSAP Method for the Region 9 EPA and the California Integrated Waste Management Board (CIWMB). The demonstration was conducted at a fully permitted facility with evaluations performed by the Water Quality Board, Air Quality Management District, Local Enforcement Agency (LEA), Land Use Agency, as well as the CIWMB and EPA. In July 2003, a Class 'A' equivalency determination was granted by the EPA Region 9 and the MSAP method was recognized as an alternative Process to Further Reduce Pathogens (PFRP).

Approvals for the MSAP method are site specific and must be obtained through the EPA's regional biosolids coordinators. State and County officials will also need to approve the implementation of the MSAP Method. With over eight years of historical data from ongoing MSAP operations, a simple trial demonstration with an agreed monitoring protocol is usually sufficient to gain approval for a facility.

In addition to the treatment of biosolids the catalyst has been successfully utilized to enhance the composting of a wide variety of organic materials, including;

- **Greenwaste / Wood Residuals**
- **Animal Mortalities**
- **Manures**
- **Winery and Brewery Byproducts**
- **Food-waste**
- **Contaminated Soils**



For an economic and environmental solution to your organic recycling needs call today

Glen Stewart

Cell: (352) 427-8665
 Office: (352) 351-0666
 Fax: (352) 351-2498



703 Hennis Road,
 Winter Garden, FL 34787

Compost Facility

4400 S.E. 73rd St, Ocala, FL 34480
 P.O. Box 193,
 Silver Springs, FL 34489