

## COMPOSTING



Composting of food wastes alone or with other source separated organic materials is an option that is rapidly growing in popularity across the country. Between 1995 and 1998, the number of food waste composting projects grew nationally from 58 to over 250. Florida has five food waste composting projects underway or in the planning stages. A few pilot projects have been conducted in the state, including one that used worms to compost the food scraps. Food waste composting can be more economical than landfilling and if done on-site, can provide the generator with a valuable soil amendment. In addition, the demand for high quality finished compost is increasing as nurserymen, farmers, and grounds maintenance personnel become acquainted with its numerous benefits.

For those unfamiliar with composting, it is essentially the process of natural decomposition accelerated through careful management of several key factors. Key factors include oxygen, water, nutrients (nitrogen and carbon), particle size, temperature and pH. Most food waste is high in nitrogen so it can be very useful for developing optimal composting recipes with a good balance of nitrogen and carbon. An increasing number of states are allowing vegetative food scraps to be composted with yard trimmings that are typically high in carbon. While composting has been around for centuries, properly composting food scraps from commercial and institutional sectors is an application that is fairly new. Because food waste can quickly putrefy, compost-

ing the material does require implementing a proven management technology. There are four broad classes of composting technologies - turned windrows, aerated static piles, in-vessel systems and vermicomposting.

Selection of a composting technology will vary depending on the space available, type and amount of food scraps generated, logistics of collection and economic feasibility. In some cases, generators of food scraps may be able to find a farmer, landscaper, or university willing to work with them or take their materials. Permitting of food waste composting facilities in Florida has been done on a case-by-case basis to date. State regulators are currently reviewing existing composting regulations to determine potential modifications that will encourage increased food waste composting. Facilities that manage less than 50 cubic yards of material on-site at any one time are exempt from permitting. Also exempt are composting facilities that produce no more than 50 cubic yards in one year where it is used on-site. Operators of existing or planned composting facilities considering the addition of food waste should start by contacting their district Department of Environmental Protection (DEP) regulator. A list of district contacts is available on the DEP web site. Regulations governing the composting of solid waste are found in Chapter 62-709, Florida State Administrative Code. Contacts for additional information include county Cooperative Extension offices and the Florida Organics Recyclers Association.

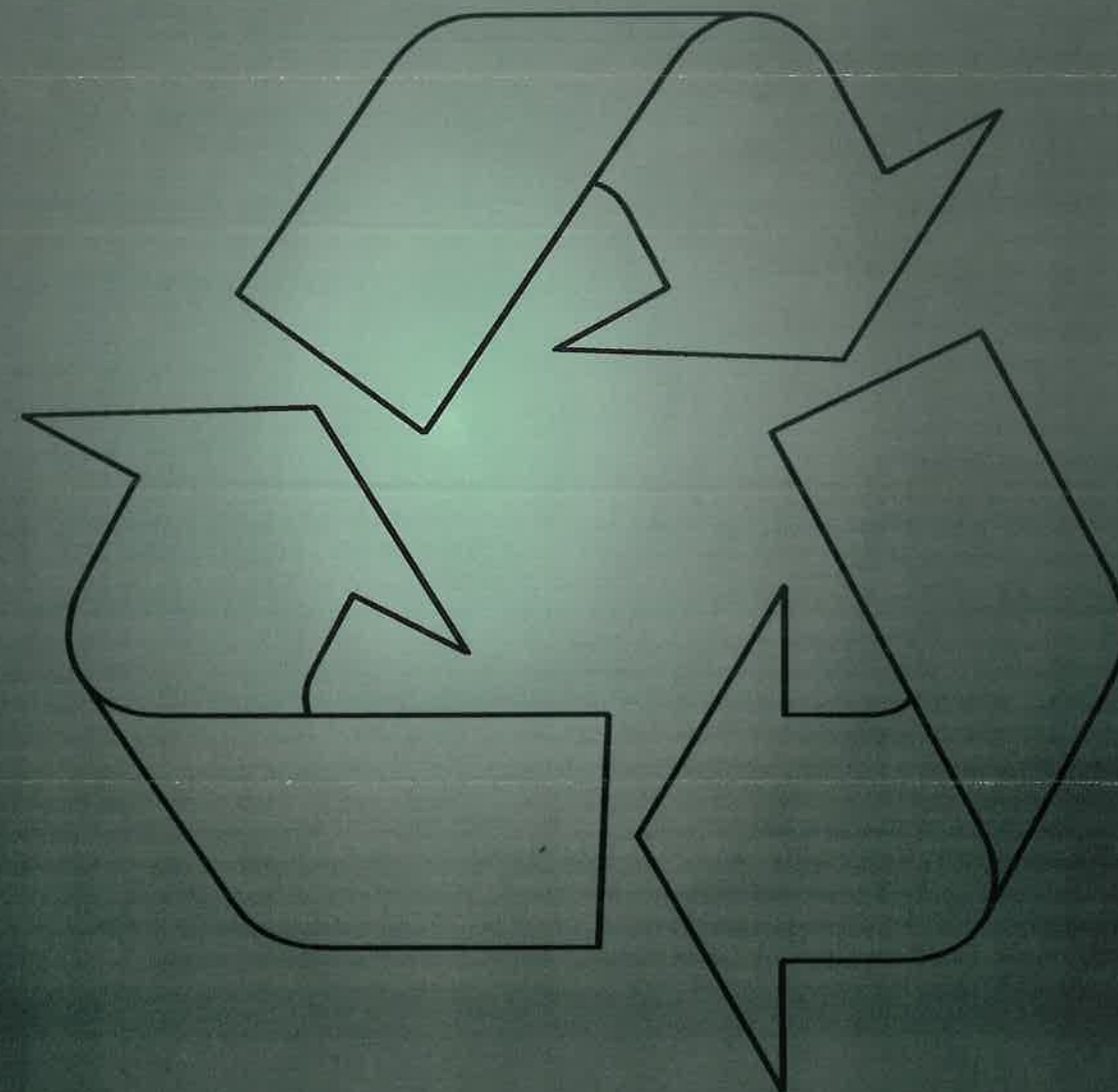
**Florida Organics Recyclers Association (FORA)**

1015 U.S. Highway 301 S., Tampa, FL 33619 (813) 681-0087

**Florida Department of Environmental Protection**

Tallahassee, (850) 488-0300; website: [www.dep.state.fl.us/](http://www.dep.state.fl.us/)

# Food Waste Diversion



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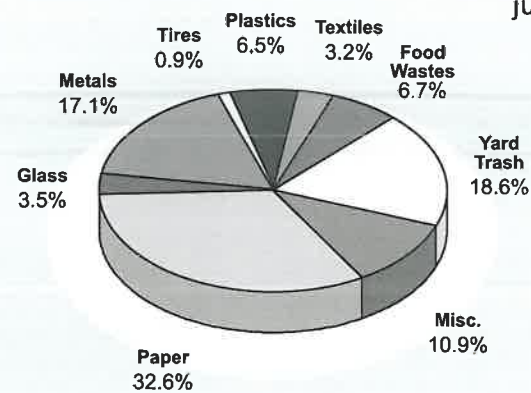
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# Food Waste Diversion

## WHY DIVERT FOOD WASTE

Food waste diversion is being considered by an increasing number of solid waste managers, local officials, and business leaders as they look for new alternatives to effectively manage their wastes. Recycling food waste is very desirable from an environmental standpoint and in many cases, it also makes good economic sense. Food scraps in landfills contribute greatly to the generation of leachate and methane gas in addition to taking up space. These food scraps come from a multitude of sources -- from food preparation, plate scrapings, spoiled or expired foodstuffs, food processing wastes, and mislabeled or excess food materials. Food waste constitutes 6.7 percent of the waste stream in Florida,

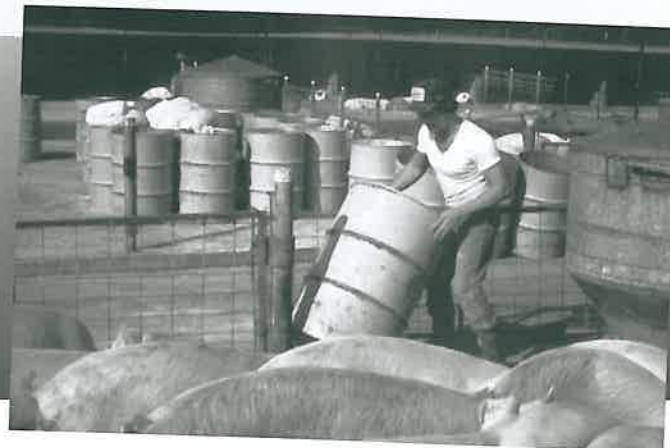
(excluding construction and demolition debris as a component). In 1996, just over 1.2 million tons of food waste were collected for landfill disposal and only six percent of that was recycled -- one of the lowest percentages of all materials in the waste stream. In contrast, materials such as paper, metals, yard waste, and white goods had recycling rates close to or exceeding 50 percent. These numbers may be modest because large industries in Florida are not required to provide generation, collection or management data to county recycling coordinators.



## ANIMAL FEED

Recycling food wastes for animal feed is a viable diversion option because many food wastes have a high nutritional value. Rather than going into the waste stream, many kinds of food waste can be fed directly to livestock with minimal processing. Food that has not been in contact with or does not contain meat or meat by-products is exempt from federal regulation and can be fed to cattle and swine with no processing. Numerous cattle and swine operations in Florida are currently feeding food waste to their livestock.

The option of diverting food waste for animal feed works well for medium to small size generators such as prisons, restaurants and grocery stores. Food waste feeders may or may not charge a fee for accepting food wastes, but if they do, the fee is likely to be considerably less than customary trash disposal costs. Emerging technologies may allow large generators such as amusement parks, military bases and institutions to recycle their food wastes for animal feed in the near future by dehydration. A number of companies are developing systems to dehydrate food waste. The resulting feedstuffs can then be more easily stored and transported as well as marketed for sale. For further information on locating possible farms and ranches with an interest in using food waste for animal feed, contact the local county Cooperative Extension office. For more information on licensed food waste feeders, contact the [Florida State Veterinarian's](#) office at 850-488-6874.



## FOOD BANKS

Charitable food banks are an excellent option for diverting some types of food and grocery products that have traditionally gone into the waste stream. Millions of pounds of donated products are being distributed to people living in poverty and those unexpectedly affected by natural disasters. Each year, food banks across the United States provide assistance to more than 26 million hungry Americans, including eight million children and four million seniors. Food banks work in cooperation with food pantries, soup kitchens, women's shelters, and other local organizations.

Food banks assist businesses by serving as a distribution channel for surplus inventories. They can handle dry, refrigerated and frozen food items, mislabeled and unlabeled products, obsolete promotional items and bulk or damaged products. To help eliminate transportation costs, many food banks will pick up donations free of charge. Donating to food banks may also provide substantial tax benefits for companies.

Reputable food banks offer donors a number of liability protections such as strict warehouse operation standards, proper storage and handling procedures, complete product tracking, recall capabilities, and accurate receipting. Network food banks affiliated with certain organizations such as Second Harvest offer a donation contract that legally holds donors harmless from liability. (Second Harvest is the largest charitable hunger organization -- serving as an umbrella network organization for 188 food banks throughout the country.) Since donations are made to help needy people, potential liability issues are covered under Good Samaritan laws. The federal Bill Emerson Good Samaritan Food Donation Act was passed in 1996 to standardize donor liability exposure and to make it easier for companies to donate. In addition, Florida passed its own version of a Good Samaritan law in 1998 that is contained in Section 570.0725, Florida Statutes.

Contact your local recycling coordinator, county Cooperative Extension office, or the business or yellow pages in your phone book for information on local food banks. In addition, the Second Harvest organization and American Culinary Association are listed as further sources for locating food banks.

**Florida County and City Recycling Coordinators:**  
(copy Tables 1F and 2F) [ww2.dep.state.fl.us/waste/programs/swm\\_98/index.htm](http://ww2.dep.state.fl.us/waste/programs/swm_98/index.htm)

**University of Florida County Cooperative Extension Website:**  
[www.ifas.ufl.edu/www/county/graphmap.htm](http://www.ifas.ufl.edu/www/county/graphmap.htm)

**Second Harvest Marketing Dept. (for Florida network food banks)**  
116 South Michigan Ave., Suite 4, Chicago, IL 60603 @ 800-771-2303  
E-Mail: [grocerydonations@secondharvest.org](mailto:grocerydonations@secondharvest.org); Web site: [www.secondharvest.org](http://www.secondharvest.org)

**Culinary Federation, Inc.**  
10 San Bartola Drive, St. Augustine, Florida 32086, Telephone  
(904) 824-4468, Florida members [www.acfchefs.org/chapter.html#FL](http://www.acfchefs.org/chapter.html#FL)