

## Processing Food Scraps and Soiled Paper

After the food scraps and soiled paper have been separately collected, they must be processed at a composting facility capable of managing the challenges that the food scraps in SSO programs present.

## Composting Basics

**To understand the capabilities and limitations of each type of composting system in light of the new challenges posed by the implementation of programs that collect food scraps, some**

**basic principles need to be reviewed.**

**Composting relies upon a balance between the carbon and nitrogen content in the organic feedstock, along with other conditions, in order to optimally regulate**

**the rate of decomposition. That balance also avoids volatilizing pollutants or odors into the atmosphere, while providing cellular structure and nutrient value to the bacteria and fungi that makes up the humus returned to the land.**

**Composters strive for a ratio of carbon to nitrogen (C/N) in the range of 20:1 to 30:1. With more carbon than a ratio of 50:1, the rate of decomposition slows significantly.**

**A ratio of less than 15:1 will generate ammonia and other volatile organic compounds (VOCs), creating air quality and odor problems.**

**Composting also requires at least 5% oxygen distributed throughout the mass of organic material to prevent anaerobic conditions that worsens air quality concerns, as well as moisture levels between 40%-60%, in order to optimize decomposition and reach peak temperatures of about 140°F that will destroy pathogens and weeds and provide an environment for the heat-**

**loving bacteria that produce the healthiest humus.**

**When food scraps in the organic stream are significantly increased, the nitrogen component is magnified, which lowers the C/N ratio, rapidly accelerating the rate of decomposition, along with the tendency to turn anaerobic, and with major odor problems. These are the problems that SSO programs have to properly manage.**



**[Full PDF Version](#)**