

# It's Not Organic Waste, It's a Resource

*Longwood  
Gardens®*

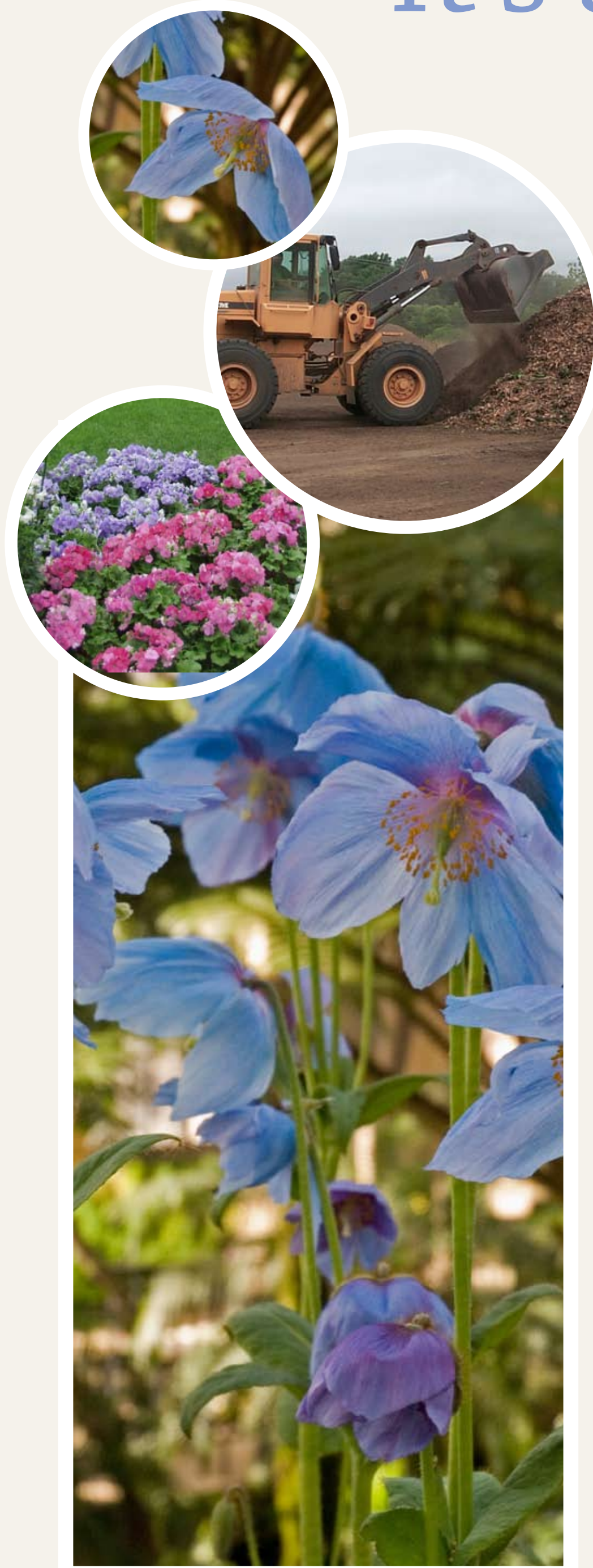
Exquisite flowers, majestic trees, dazzling fountains, an opulent conservatory—all describe the more than 300 acres of Longwood's formal gardens.

This former estate of industrialist, conservationist, and philanthropist Pierre S. du Pont (1870-1954) has a rich heritage filled with love of beauty and caring for the natural environment. In 1906, Mr. du Pont purchased the property to save an arboretum of historic trees, and he went on to create and nurture a remarkable garden that includes more than 700 acres of natural and agriculture areas. Today, this passion is instilled in the daily operations of Longwood, where sustainable practices and horticultural beauty are combined.

For over 20 years, Longwood has composted and recycled all of its discarded horticultural material into mulches and compost – turning what some would consider waste product into a substance that enriches its landscapes, greenhouses, and agricultural fields. We invite you to learn more about Longwood's composting operation, the benefits of composting, and the sustainable beauty that grows from this reclaimed resource.

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Kennett Square, PA • [www.longwoodgardens.org](http://www.longwoodgardens.org)



# The Benefits of Compost

What is compost? Simply put, compost is the result from controlled decomposition of organic matter. Decomposition occurs naturally in forests, grasslands, and even in your own yard. Active composting gathers organic matter into piles or compost bins, then harnesses and accelerates this natural process. Compost is biologically driven and microorganisms do most of the work, transforming the organic matter into a nutrient-rich, soil-like material that benefits our landscapes and gardens. Oxygen and water are required, along with several heating cycles from turning the piles. Composting is not “aging,” although useful aging products, such as mulch, are also created from yard waste.

The most obvious benefit of compost is to plants. Compost helps create a balanced, fertile plant growing mix that is high in organic matter and several essential plant nutrients. It promotes healthy soil structure and is a living product that supports beneficial microorganisms and worms, all of which benefit plant growth. Compost loosens the soil, allowing the plant’s roots to grow and spread easily. It provides nutrients and holds water. As opposed to sterile potting media, compost directly produces strong, healthy plants like the ones in this exhibit. All of the plants you see are grown in a special mix that contains 85% composted, aged, or recycled elements.

But there are even more benefits to composting ...



Many plants in Longwood’s Conservatory displays are grown in a soil mix containing compost.



The Main Fountain Garden’s manicured lawns are annually given a compost top-dressing, which reduces compaction and builds the soil’s structure.



The Idea Garden showcases the latest gardening techniques and uses a compost-soil mix in its display beds.

# Longwood's Composting Operation

Since the early 1980s, Longwood Gardens' large-scale composting operation has recycled discarded organic material from its more than 1,000-acre site into leaf mold, mulch, and compost. The composting operation not only benefits Longwood's plants and beautiful displays, but also benefits Longwood's bottom line. It would cost Longwood over \$60,000 a year to purchase the compost and mulch it now produces. Furthermore, hauling the discarded organic material off-site to landfills would cost over \$150,000 a year. By cutting the hauling needs and not buying new mulch and compost, Longwood uses less fuel which reduces greenhouse gas emissions. In addition, less fertilizer is needed when using compost.



Fallen trees, branches, leaves, discarded plants, and soil are all recycled. Food residuals from Longwood's Terrace Restaurant are also being added to the compost piles. Longwood's goal is to have no organic material leave the property for disposal in a landfill.



The tub grinder (above) shreds raw organic material, reducing it to a consistent size ideal for composting or mulch production.

The screener (right) sizes out ground particles, separating fine particles from large pieces. The large pieces will be aged into mulch (below), while the fine material will be spread on Longwood's agricultural fields or added directly to compost piles.



The turner (right) blends the piles, adding air and moisture to further the composting process. Even in winter, the piles produce heat. The entire composting process takes about 8 to 10 weeks.

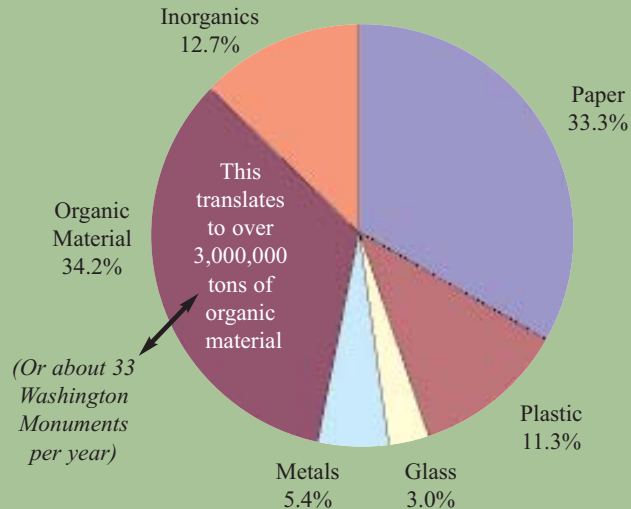


Staff monitor temperatures, which can reach over 145 degrees Fahrenheit in these long compost piles called windrows (right). When the piles are warm enough, turning is performed. The high temperatures kill weed seeds and other unwanted organisms. At maturity, the uniform and nutrient-rich compost is returned to the gardens and surrounding agricultural crop areas.



## What's in the trash?

A quick look at Pennsylvania's 2001 waste-stream reveals that the majority of the materials going into local landfills are either paper or organic materials (including horticultural and food waste), both of which could be recycled.



### 2001 Pennsylvania State-wide Waste Composition Study

Source: R.W. Beck and PA DEP Study 2003

Recycling Longwood's organic material keeps it out of the waste-stream, reducing transportation fuel needs. Additionally, most of the organic material's carbon and nutrients are recycled back into the soil instead of being trapped, unused, in a landfill. When you put it all together, Longwood's composting operation provides many sustainable benefits: it provides nourishment for our soils and plants; it saves money and fuel; AND it helps the environment by returning carbon to the soil.

# Composting and You

So why compost at home or encourage your community to begin a large-scale composting program? Do it to promote fewer greenhouse-gas emissions, to reduce landfill space, to reduce fuel and trucking needs, and to save money. Do it because compost is a living, nutrient-rich amendment that results in healthier soils and plants. Do it because the sustainability of compost produces beautiful plants while using less fertilizer.

Many state and local organizations can provide more information on the benefits of compost and the utility of recycled organics. Visit [www.longwoodgardens.org](http://www.longwoodgardens.org) for backyard composting information.

Contact your state or county representative and urge them to consider a large-scale composting operation to recycle yard and food waste. At a minimum, urge them to enact a yard waste ban from landfills in your state or region.

Remove organic waste from the landfills and turn it into beauty.



Remember: it's not organic waste, it's a resource!