Case Study

COSTANZO FAMILY FARM

RESIDENTIAL FARM & ORCHARD (NON-COMMERCIAL)

Tim Costanzo's 3.5-acre family farm, which is located in the Elfin Forest, is home to an assortment of animals and over 160 varieties of fruit trees.

Having grown up on an orchard in Encinitas, stewarding the land has been one of Costanzo's core values since childhood. Composting is an essential part of the organic growing methods practiced on the farm since it began in the mid 1990s.

The Costanzo Family Farm proves that mid-scale composting can be easily accomplished in rural and agricultural settings. It also showcases numerous benefits, including improved soil health, water retention, and higher-quality crops.

Practices Implemented

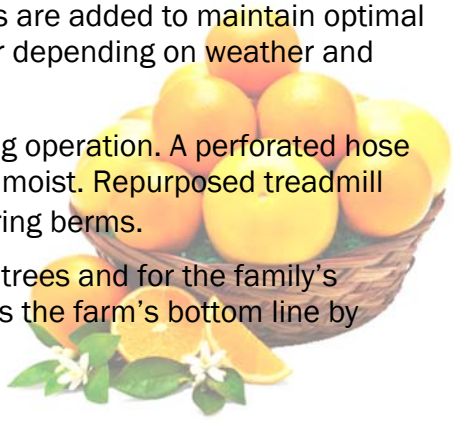
- Windrow-style composting of farm-generated waste
- Water-efficient irrigation due to increased water retention of soil
- Runoff prevention through placement of berms around compost site

Owner Tim Costanzo and his landscaper/gardener create compost at the farm using a mixture of "greens" and "browns" which are all generated on-site. The resultant compost is used as a soil amendments for the farm's fruit trees, increasing flavor and yields while helping the soil retain water and nutrients.

The composting operation at Costanzo Family Farm consists of two windrows about 60 feet long, 14 feet wide, and 6 feet tall. One windrow is designated as the "active" pile, while the other is left to "cook" and finish its decomposition cycle. Compost feedstock includes bedding and manure from the farm's animals, as well as landscape trimmings, paper, cardboard, inedible fruit, and untreated scrap wood from the farm's operations. In addition, wood chips from tree trimmings are added to maintain optimal conditions. The composting process takes from seven months to a year depending on weather and feedstock variations.

Costanzo has developed innovative methods to optimize his composting operation. A perforated hose runs along the top of the piles and is used as needed to keep the piles moist. Repurposed treadmill belts serve to redirect water runoff. The site also features runoff capturing berms.

Enough compost is made on the farm to amend the soil for all the fruit trees and for the family's vegetable garden. The Costanzo Farm's composting operation supports the farm's bottom line by reducing disposal costs and the cost to purchase fertilizers.



Challenge	Practice Implemented
Management of farm-generated organic materials	Mid-scale windrow composting to manage materials generated on-site
Time and labor intensiveness of composting (e.g., aerating and moving piles of organic material)	Employment of small tractor and assistance from gardener/landscaper to perform heavy labor
Maintenance of optimum moisture content of compost windrows in lieu of State-wide mandates to restrict water use	Installation of sophisticated and highly-efficient automated irrigation equipment to reduce overall water consumption. (For every 1 percent of compost added, soil can hold 16,500 gallons of plant-available water per acre of soil down to 1 foot deep.)

The Bottom Line

- Savings in hauling, processing, and disposal costs from self-managing farm waste on-site
- Savings from avoided cost of purchasing commercial fertilizers for crop production

"Composting is simple — just keep your pile moist and turn it regularly. With these basic rules, your finished compost will allow the soil to produce the best food. My vegetable garden is on pure compost 30 inches deep and it gives me unbelievable yields. Compost is truly black gold. Instead of continually extracting from the soil, composting returns nutrients to the soil, resulting in robust plants and healthier, tastier food."

Tim Costanzo
Owner, Costanzo Family Farm

The farm was featured in an educational video produced by the County of San Diego in partnership with television cooking personality, "Sam the Cooking Guy".

Watch the video at *www.sandiegocounty.gov/dpw/recycling/composting.html*

The County of San Diego conducts free on-site visits to help organics generators (agricultural, commercial, and residential) comply with the State's mandatory recycling and organics recycling requirements. Contact County staff or your solid waste hauler to request assistance.
Email: Recycle@sdcounty.ca.gov or visit: www.R1earth.org

COUNTY OF SAN DIEGO RECYCLING
IT'S IN OUR NATURE

The County also maintains a recycling database available online and toll-free hotline:
Visit www.WasteFreeSD.org or call 1-877-R-1-EARTH (1-877-713-2784)