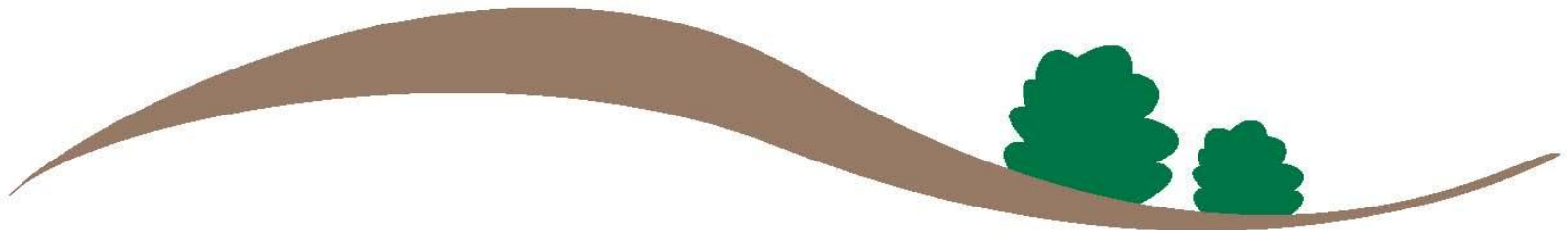


Inland Empire Regional
Composting Facility



INLAND EMPIRE REGIONAL

COMPOSTING

A U T H O R I T Y

Inland Empire Regional Composting Authority (IERCA)

- 50/50 partnership with IEUA/SDLAC
- Formed to gain control of biosolids management
- Gain control of costs and options



IERCA Overview

- 2002 – IEUA/SDLAC form Partnership (JPA)
 - Purchased IKEA warehouse
 - Started design
- 2004 – Started construction
- 2007 – Began daily operations



Construction Started 2004







IERCF

Biofilter

Operations Started 2007



Operations History

	Five Years
Biosolids Processed	600,000 wet tons
Amendments Processed	300,000 wet tons
Compost Sold	930,000 cubic yards

What we've learned

- Pros
 - Able to operate at design throughput ~590tpd
 - Less energy than anticipated
 - SCE program/HVAC improvements
 - All compost sold
 - Woody amendments are available
 - SAFE!
 - Biofilter works

2011 Source Test Approval

- AQMD source test evaluation received 10/11/11
- Test report “Deemed Acceptable”
 - Highest possible evaluation rating
 - No restrictions on operations
 - Biofilter determined to be in full compliance



VOC Removal		
80% reduction	ERCs Purchased	Source Test Results
1,742	174	148

Note: Emissions are in pounds of VOC emitted per day.

What we've learned

- Challenges
 - Permitting
 - Columns
 - Material handling
 - Hoppers
 - Conveyors
 - Screens
 - Air handling
 - Galvanization not compatible



Loaders pass by columns
thousands of times each
month



Column Incident

- July 2011
 - Loader collided with column
 - 4 months to complete repairs



Damaged column, 7/21/2011



Repaired column, 11/21/2011

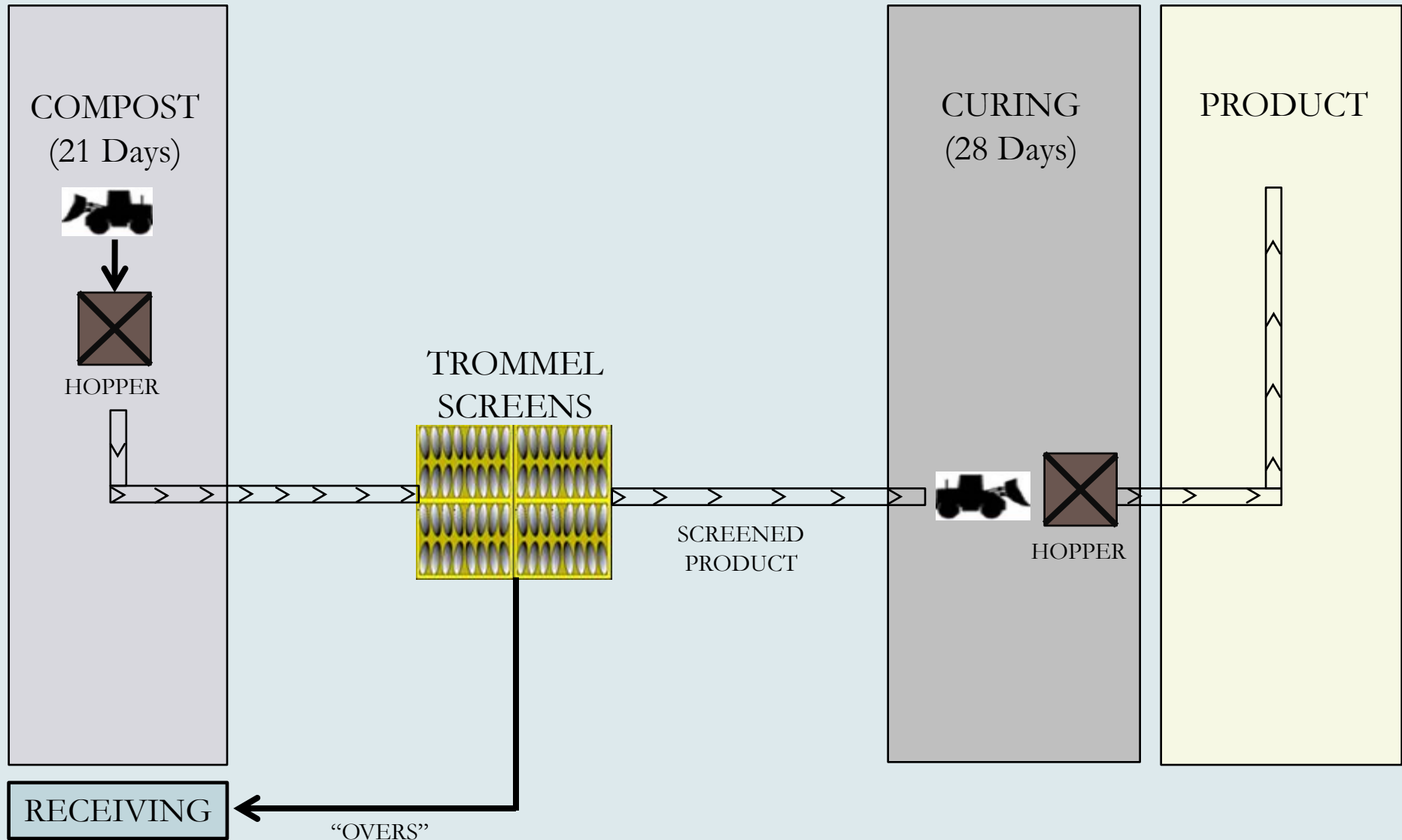
Hopper improvements



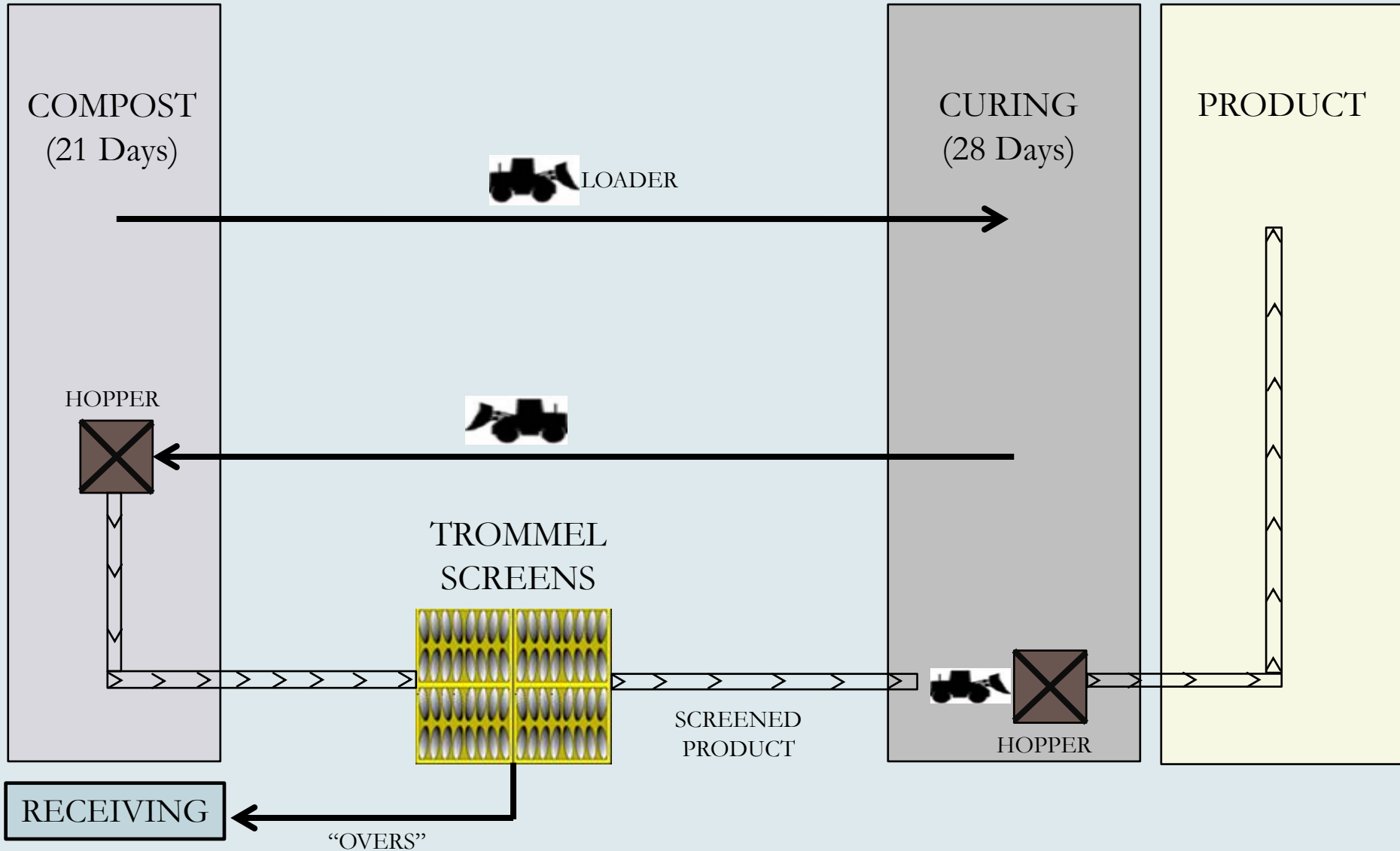
- Design Capacity
 - 200 cubic yards
- Actual
 - 40 cubic yards
- After Modifications
 - 100 cubic yards



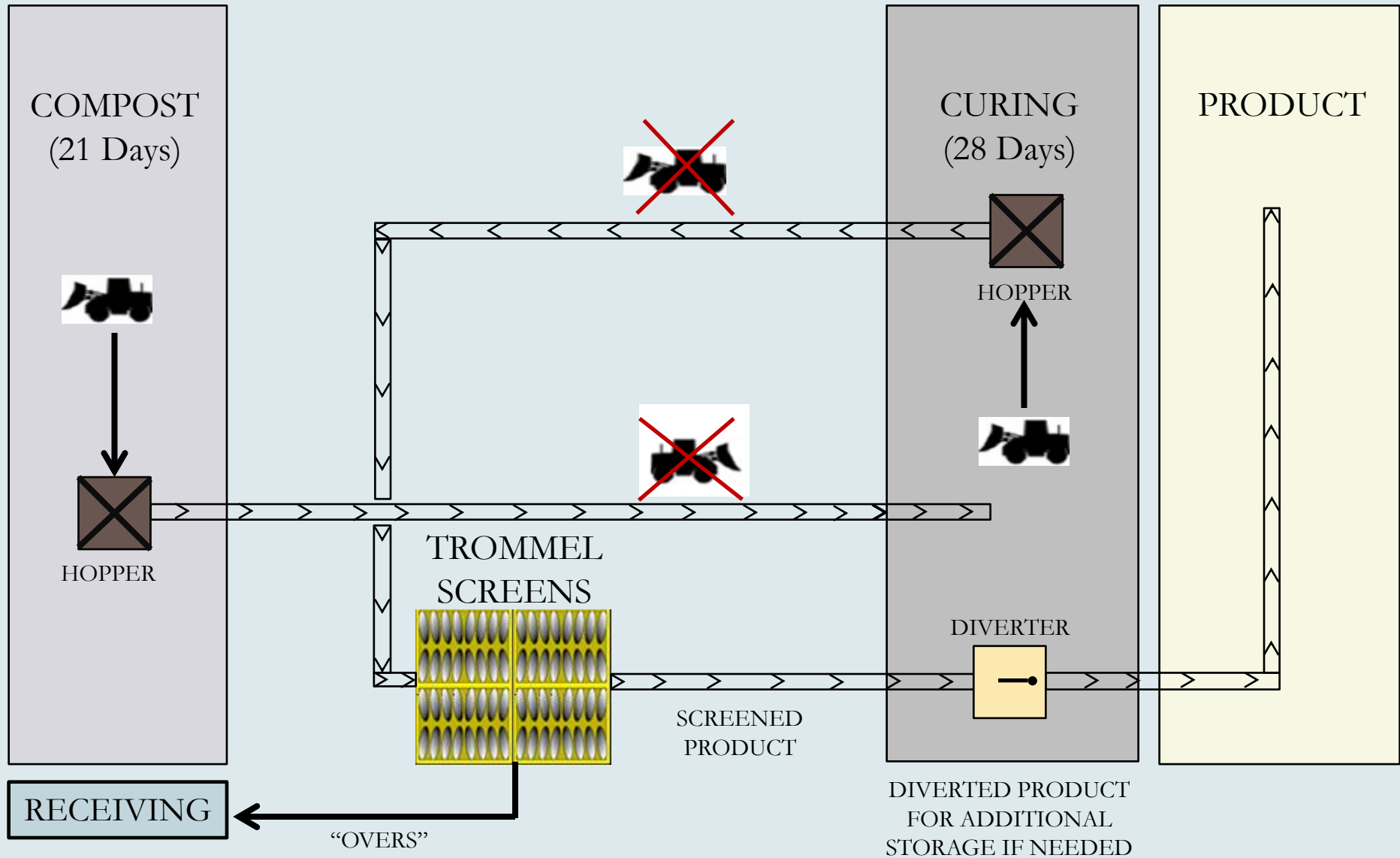
Original Design Flow Process



Current Flow Process



Proposed Flow Process



Branding

- IERCA's SoilPro™ brand has been filed for trademark
- Launched website www.ierca.org





PREMIUM COMPOST BENEFITS

- Adds valuable organic matter - improving soil structure
- Improves the moisture holding capacity of light, sandy soils
- Reduces the bulk density of heavy, clay soils – increasing moisture infiltration and aeration, slowing soil compaction
- Reduces soil erosion and nutrient leaching
- Provides plant nutrition, improving plant vigor

HOW MUCH PREMIUM COMPOST DO I NEED?

ONE CUBIC YARD OF COMPOST COVERS:



648 sq. ft.	↔	1/2" depth
324 sq. ft.	↔	1" depth
162 sq. ft.	↔	2" depth
108 sq. ft.	↔	3" depth

CUBIC YARDS REQUIRED TO COVER 1,000 SQUARE FEET

1/2" layer	↔	1.5 yd ³
1" layer	↔	3 yd ³
2" layer	↔	6 yd ³
3" layer	↔	9 yd ³

GUARANTEED MINIMUM NUTRIENT ANALYSIS

Total Nitrogen (N)	0.75%
Water Insoluble Nitrogen*	0.75%
Available Phosphate (P2O5)	1.0%
Soluble Potash (K2O)	0.25%
Iron (Fe)	1.0%

Nutrients are derived from composted biosolids (treated sewage sludge).

*Slow release nitrogen

Soil Amendment Ingredient List
Composted biosolids (treated sewage sludge), forestry products, yard trimmings, and stable bedding.

Information regarding the contents and levels of trace elements in this product is available on the internet at <http://www.aapfco.org/metals.htm>.

SoilPro Products Premium Compost is sold in bulk form, by the cubic yard or ton.

MANUFACTURED BY:



12645 Sixth Street, Rancho Cucamonga, CA 91739 Telephone (909) 993-1500 www.ierca.org



Quality Products for A Healthy Soil

COMPOSTING PROCESS

The Inland Empire Regional Composting Authority (IERCA) manufactures SoilPro Products Premium Compost at its indoor state-of-the-art composting facility. At this high tech facility, advanced engineering principles are used to accelerate the natural degradation process – enabling a finished product to be produced in just 2 to 3 months. Ongoing monitoring of the system allows for a consistently high quality soil amendment to be produced.



SoilPro Products Compost Products are rich in organic matter and nutrients, both of which are essential components of productive soils. SoilPro™ Products Compost Products are excellent for amending depleted soils, enriching planting mixes, and enhancing the growth of turf and ornamental plant species.

The enclosed composting process, essentially “pasteurizes” the product, allowing SoilPro Products Premium Compost to boast that it is free of viable weed seeds and plant pathogens.

DIRECTIONS FOR USE:

Flower and Ornamental Garden Beds: Apply a 1 to 2 inch layer of SoilPro Products Premium Compost to the soil and incorporate it to a depth of 6 to 8 inches. Plant flowers and water. Condition the soil this way every year 2 to 3 years.

Trees & Shrubs: Dig a hole to the approximate depth of the root ball and two to three times as wide. Mix 1 part SoilPro Products Premium Compost with 3 parts soil obtained from the planting hole. Place the tree or shrub in the planting hole and apply amended soil around the root ball. Firm the soil occasionally and water.



New Turf Areas: Apply 1 to 2 inches of SoilPro Products Premium Compost to the soil and incorporate it to depth of 6 to 8 inches, apply seed, then rake and water.

Topsoil Manufacturing / Upgrading: Mix 1 part SoilPro Products Premium Compost with 3 parts existing or purchased soil and blend uniformly.

Mulching: Spread a 2 to 3 inch layer around trees, shrubs, and flowers.

**NUTRIENT RICH, WEED-FREE,
CONSISTENT, EASY TO USE...**



**...COMPOST PERFECT
FOR YOUR LANDSCAPE,
GARDEN, OR TURF**



Green Energy

- *Solar installed 2008*
- *Wind power installed 2011 (RP4)*



Awards

- AAEE Leadership in Engineering
- CRRA Dave Hardy Leadership in Organics
- SWANA Excellence in Composting Systems
- USCC Excellence in Marketing Program Presentation





Questions or Comments?