


# Tools of the Trade

USCC January 26<sup>th</sup>, 2011

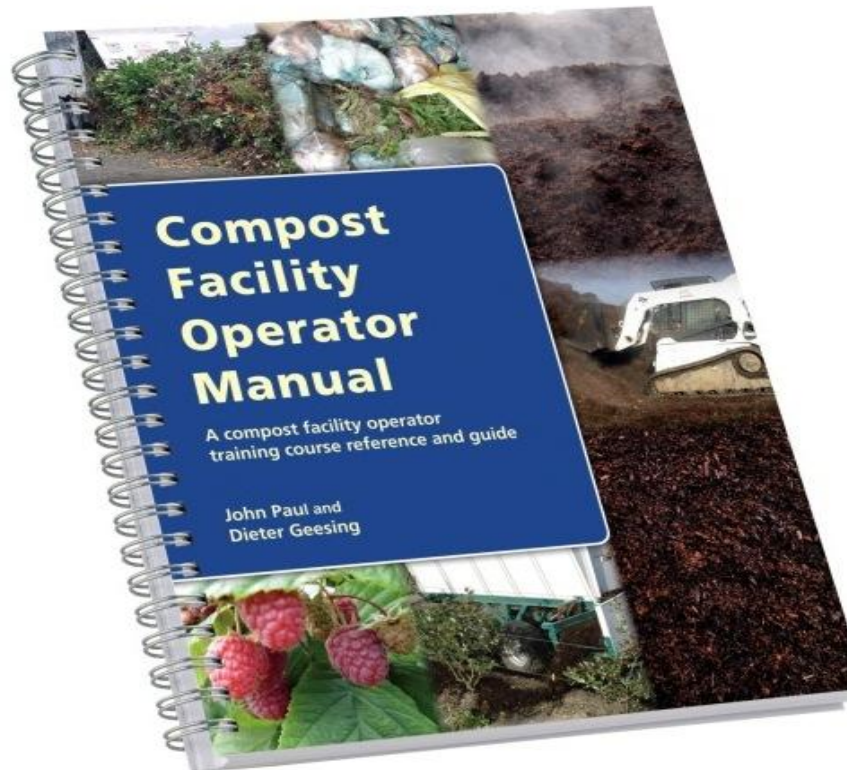
Jeff Gage, Compost Design Services

Olympia, WA

# Compost Manuals

 Cooperative Extension

NRAES-54



## On-Farm Composting Handbook

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by

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# Compost Mixture Calculators

Mix Identifier

Date

Material

Mix	Moisture	Solids	Total	Total	C:N	Bulk
parts	Content	Content	N	C		Density
yards	%	%	%	%		lb/cu yd

**chkyrd**

**1.0** 66 34 1.37 35 25 **1800**

**chkbed**

**1.0** 56 45 2.19 27 12 **836**

**food**

**1.0** 79 22 1.41 31 22 **973**

**weeds**

**2.0** 71 29 1.38 17 12 **400**

**bulk**

**6.0** 50 50 0.08 44 50 **600**

extra water to add, gallons

**0**

extra water to add, lbs

**0**

Mix Carbon %

**38**

Target

Mix Nitrogen %

**0.75**

Range

Mix C:N

**50**

20-40:1

Mix moisture

**60**

40-65%

# Moisture Tester



# Oxygen/gas analyzers



# Amp clamps, Hot wire Anemometer



# Pressure gauges and pitot tubes



# Temperature probes and loggers



Web Controller - Windows Internet Explorer

**ECS** **COMPTROLLER™**  
Composting Data Acquisition and Control System

City of Compton

**Current Status** Manual

Zone	Status	Damper	Avg Top	Avg Bottom	Engineer	Ajpt (days)
Zone 1	RUNNING	POSITIVE	119°F	117°F	3	33.9
Zone 2	Stopped	CLOSED	75°F	76°F		
Zone 3	RUNNING	POSITIVE	146°F	133°F	3	26.1
Zone 4	Stopped	CLOSED	75°F	77°F		
Zone 5	RUNNING	NEGATIVE	141°F	146°F	2	12.0
Zone 6	RUNNING	NEGATIVE	104°F	93°F	1	-0.0
Zone 7	RUNNING	NEGATIVE	161°F	161°F	2	5.8

**Zone Zone 1 is RUNNING**

Batch Name: 2010-E20-Z4  
Batch Start Date: 10-06-2010 17:12

Logged Days: 33.8  
Regime Days: 18.3  
PERP Days: 3.8  
VAR Days: 17.7

Frost Temp - Top: 122°F  
Frost Temp - Bottom: 125°F

View History View Comments  
Stop Logging

mp: 81°F  
per: 20%  
p 1: 62°F  
p 2: 68°F

**Supply Fan** Details Exh

Actual Speed: 60%  
Control: AUTO  
Status: OK

WATCH  
Designed for use with ECS COMPTROLLER Composting Data Acquisition and Control System

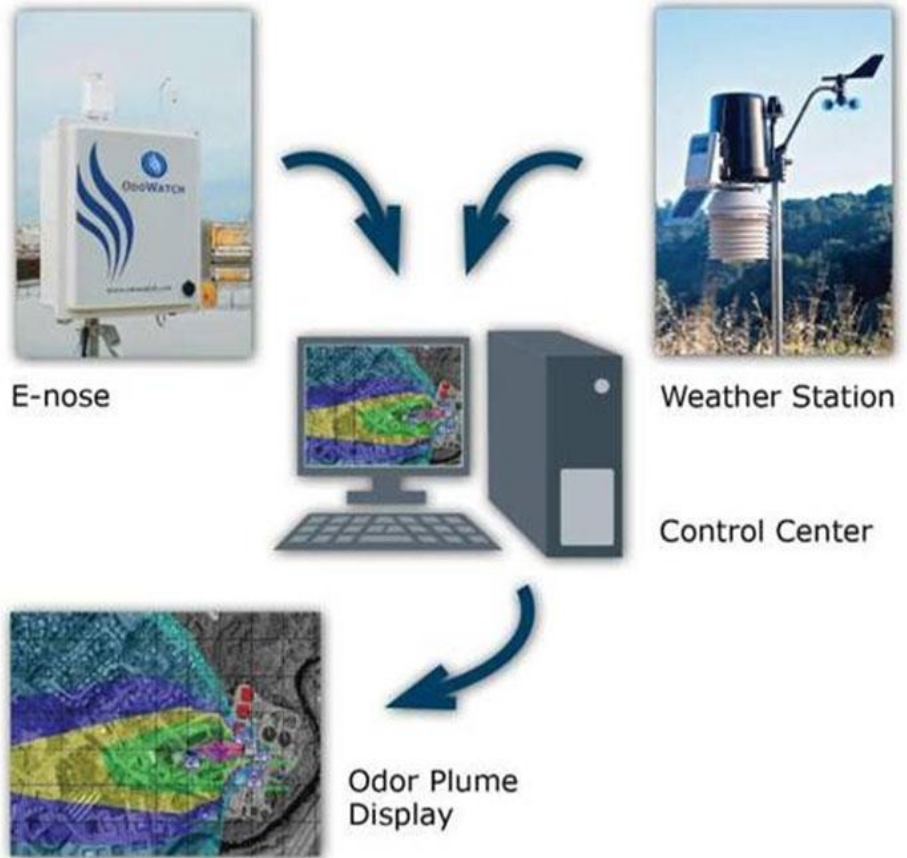
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Graph showing temperature trends over time for various zones.





# Odor Sensors and Monitoring



**NASAL RANGER**®  
field olfactometer

# pH monitoring, Sulfide testing



# Stability test kits



**Solvita® Compost**

Stable compost...  
low CO<sub>2</sub> rate and no  
free ammonia

Click for more info >



Customized Compost Field Monitoring Test Kits

**COMPOST DESIGN SERVICES**

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