Soil Foodweb School BioComplete™ Compost: DO NOT ALTER the colorful cells: they self-calculate!

Step 1: Adjust Pile Dimensions

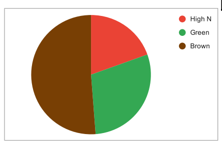
Width (diameter of the wirecage in feet)	Height (Wire frame height in feet)	Total volume (cubic feet)
3.4	3.3	29.9

Step 2: Adjust Bucket Volume

Pile's Total Gallons (*)	Bucket volume (gal)	number of total buckets:
225	5	45

Temperature Conversion Chart		
Fahrenheit	**Celsius**	**Hours**
131	55	72 hours
150	65	48 hours
160	71	24 hours
165	74	12 hours
170	77	now!!

(*) Total Volume in cubic feet converted to pile's total volume in gallons.



Step 3: Calculate Compost Recipe

Pile # 1	Date Pile Assembled: 08/11/2022	Expected Ambient High and Low Temperatures: 94/59 F

High-N Materials: Use the C:N content of each material as a rough guide for percentage of that material.

Type	C:N	additional notes	Total Buckets	True High N Buckets	Buckets per Round (mix in 4 batches)	Percentage
Coffee Chaff	10:1	From Bay Area Coffee Inc.	6	6	1.5	14.6%
Horse Manure	50:1	with bedding	3	2	0.75	4.9%
Total High-N Materials				**8**	**2.25**	**19.5%**

Green Materials: Aim for at least 30% green ALWAYS!

Type	C:N	additional notes	Total Buckets	True Green Buckets	Buckets per Round (mix in 4 batches)	Percentage
Comfrey	14:1		2	2	0.5	4.9%
Mint	30:1		0	0.00	0	0.0%
Spent Coffee Grounds	20:1		0	0.00	0	0.0%
Red Clover from Armijo	30:1	mixed with other weeds	5	5	1.25	12.2%
red cover from my garden			5	5	1.25	12.2%
Total Green Materials				**12**	**3**	**29.3%**

Woody Materials

Type	C:N	additional notes	Total Buckets	True Woody Buckets	Buckets per Round (mix	Percentage
Forest Leaves	150:1	collected last year in Martinez	4	4	1	9.8%
Standing Dead Weeds and	80:1	from 575 e h st.	8	8	2	19.5%
Finished Compost	30:1		1	1	0.25	2.4%
Woodchips	300:1		4	4	1	9.8%
Ground down black locust tree			2	2	0.5	4.9%
Horse Manure		With bedding	3	1	0.75	2.4%
fallen leaves			1	1	0.25	2.4%
Total Woody Materials				**21**	**5.75**	**51.2%**
Total Materials				**41**	**11**	**100.0%**
High N						**19.5%**
Green						**29.3%**
Brown						**51.2%**

Temperature Thresholds:					
Temp (℉)	131	150	160	165	170
Time	72 hours	48 hours	24 hours	12 hours	Turn now!

Moisture Measurements:					
Moist (%)	above 80	60 -70	50	30 - 40	below 20
Parameter	Above 4 drops or steady stream of water	2 -3 drops when squeezed	One drop. IDEAL	Material sticky and holds together	Material falls apart or can be blow away

Step 4: Record Temperatures and Moisture every 24 hours: Take 3 readings from the hot center: two sides and top.

Day #	Ambient Temp (℉	Date	Time	Ave. Temp (℉	Ave. Moisture	Temp threshold	Time required to complete	expected turn date	Pile Turned	MENTOR USE ONLY:	Temp 1 (side)	Temp 2 (side)	Temp 3 (top)	Moisture (side)	Moisture (side)	Moisture (top)	Notes and Observations
1	73	Aug 11 2022	7:32:00 PM	74	50						74	74	74	50	50	50	
2	79	Aug 12 2022	1:08:00 PM	109	48						104	115	108	50	50	45	
2	78	Aug 12 2022	6:23:00 PM	142	50	131	72 hours	8/15			146	144	137	50	50	50	
3	65	Aug 13 2022	9:09:00 AM	155	50	150	48 hours	8/15			159	153	152	40	50	60	a tinge of anaerobic smell
3	77	Aug 13 2022	7:47:00 PM	160	#DIV/0!	160	24 hours	8/14			163	157	161				
4	84	Aug 14 2022	7:01:00 PM	160	47				x	1st center done	161	160	160	45	40	55	
4	81	Aug 14 2022	8:11:00 PM	83	48						82	86	80	45	45	55	
5	71	Aug 15 2022	10:21:00 AM	129	50						135	128	125	50	50	50	
5	79	Aug 16 2022	11:54:00 AM	133	#DIV/0!	131	72 hours	8/18			133	135	131				
6	96	Aug 16 2022	3:02:00 PM	170	52	170	12 hours	8/19			171	170	169	50	50	55	temperature hot 170 more like noon but
7	71	Aug 17 2022	9:20:00 AM	170	47				x	2nd center done	172	169	169	45	40	55	
7	75	Aug 17 2022	10:27:00 AM	84	50						84	84	84	50	50	50	
8	66	Aug 18 2022	10:19:00 AM	155	57	150	48 hours	8/20			155	156	154	60	50	60	leaving tarp off
8	79	Aug 18 2022	1:55:00 PM	160	#DIV/0!	160	24 hours	8/19			163	160	158				
9	82	Aug 19 2022	1:58:00 PM	160	50				x	3rd center done	160	161	160	50	50	50	a mild smell of anaerobic in the core.
9	87	Aug 19 2022	3:17:00 PM	87	50						85	87	90	50	50	50	
10	71	Aug 20 2022	11:02:00 AM	142	52	131	72 hours	8/23			143	143	140	45	55	55	
10	81	Aug 20 2022	7:00:00 PM	153	#DIV/0!	150	48 hours	8/22			154	154	150				
11	72	Aug 21 2022	2:39:00 PM	158	55						160	160	154	60	55	50	leaving tarp off
12	90	Aug 23 2022	4:33:00 PM	144	45						148	141	144	45	40	50	
14	75	Aug 25 2022	1:54:00 PM	134	42					4th center done	133	136	134	40	40	45	hydrated a bit
17	73	Aug 28 2022	4:37:00 PM	114	40						114	114	115	40	40	40	hydrated
22	88	Sep 2 2022	5:58:00 PM	90	45						91	87	91	45	45	45	hydrated
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Step 5: Assess Biology: copy B2:B33 from your .csv file from the sMApp and paste "values only" into cell AJ8.

Independent Assessment Verified by Mentor

Assessment Date:	
Bacterial Biomass (µg/g)	
Standard Deviation	
SD as % of Mean	
Actinobacterial Biomass (µg/g)	
Standard Deviation	
SD as % of Mean	
Fungal Biomass (µg/g)	
Standard Deviation	
SD as % of Mean	
Fungal Average Diameter - Weighted Mean (µm)	
F:B Ratio	
Total Beneficial Protozoa (number/g)	
Flagellates (number/g)	
Standard Deviation	
SD as % of Mean	
Amoebae (number/g)	
Standard Deviation	
SD as % of Mean	
Bacterial-feeding Nematodes (number/g)	
Fungal-feeding Nematodes (number/g)	
Predatory Nematodes (number/g)	

Oomycetes Biomass (µg/g)	
Standard Deviation	
SD as % of Mean	
Oomycetes Ave Diameter - Weighted Mean (µm)	
Ciliates (number/g)	
Standard Deviation	
SD as % of Mean	
Root-feeding Nematodes (number/g)	
Standard Deviation Total Beneficial Protozoa	
SD as % of Mean Total Beneficial Protozoa	