

# SOIL CONTROL LAB

42 HANGAR WAY  
WATSONVILLE  
CALIFORNIA  
95076  
USA

Work Order #: 6050194  
Account #: 8956  
Date Received: May 5, 2016  
Date Reported: May 11, 2016

## Soil Report

Plant Nutrition Tech.  
380 Tennant Ave. #6  
Morgan Hill, CA 95037  
Attn: Dennis Amoroso

Lab Number: 6050194-1/2  
Project #/Name: None / None  
Sample ID: BioRoc Compost

Your Values (lbs/acre 6" deep)		Suggested Values	RECOMMENDATIONS ALL VALUES lbs/acre 6" deep	
Ammonia (NH <sub>3</sub> -N)	250	10-50 High	0 Nitrogen (N)	
Nitrate (NO <sub>3</sub> -N)	240	20-100 High	0 Phosphorous (P <sub>2</sub> O <sub>5</sub> )	
Total Available N	490	75-150 High	0 Potassium (K <sub>2</sub> O)	
Phosphorous(P <sub>2</sub> O <sub>5</sub> )	470	100-300 High	6000 Gypsum (CaSO <sub>4</sub> )	
Potassium (K <sub>2</sub> O)	2400	796-1327 High	0 Lime (CaCO <sub>3</sub> )	
Calcium (Ca)	7700	6787-8484 OK	0 Dolomite (CaCO <sub>3</sub> & MgCO <sub>3</sub> )	
Magnesium (Mg)	770	678-1357 OK	0 Sulfur	
Sulfate (SO <sub>4</sub> -S)	1700	100-200 High	*Gypsum adds Ca and doesn't affect pH; Lime adds Ca and raises pH; Dolomite adds Ca & Mg & raises pH.	
Sodium (Na)	1100	< 250 See SAR		
Chloride (Cl)	540	1-100 High	Lime Requirement: Tons of 100% CaCO <sub>3</sub> Lime per Acre 6" deep needed to raise pH of soil to:	
ECe (dS/m)	13	0.2-4 High		
Copper (Cu)	87	1 + OK	pH 6.0 needs 0.0 pH 6.5 needs 0.0 pH 7.0 needs 0.0	
Zinc (Zn)	18	3 + OK		
Iron (Fe)	150	8 + OK		
Manganese (Mn)	260	4 + OK	Gypsum Requirement (needed for clay treatment) -5.7 tons per acre 6" deep	
Boron (B)	3.7	1-4 OK		
SAR	3.6	0-6 OK	Gypsum helps the soil structure by "loosening" the soil	
CEC (meq/100gms)	28	10-20 OK		
ESP (%)	8.3	0-10 OK		
pHs Value	7.1	6.5-7.5 OK		
Organic Matter (%)	6.9			
Data:		Method	Data:	Method
NO <sub>3</sub> -N	120 mg/Kg	KCl	OrgMat	6.9 % WalkBk
NH <sub>3</sub> -N	130 mg/Kg	KCl	Org-C	4.0 % WalkBk
P	110 mg/Kg	Olsen	SMP Buffer pH	7.39 unit SMP
SP	82 %	Sat	GypReq	-6.7 meq/100g GypSol
pHs	7.1 unit	Sat	Ca	3900 mg/Kg NH <sub>4</sub> OAc
ECe	13 dS/m	Sat	Mg	380 mg/Kg NH <sub>4</sub> OAc
Ca	160 meq/L	Sat	Na	540 mg/Kg NH <sub>4</sub> OAc
Mg	37 meq/L	Sat	K	1000 mg/Kg NH <sub>4</sub> OAc
Na	36 meq/L	Sat		
K	19 meq/L	Sat		
Cl	9.3 meq/L	Sat		
SO <sub>4</sub> -S	32 meq/L	Sat		
SAR	3.6 ratio	Calc	Cation Exchange Capacity (CEC) and Base Saturation Percentages	
B	1.9 mg/Kg	CaCl2	CEC	28 meq/100gm Calc.
Cu	44 mg/Kg	DTPA	NH <sub>3</sub> -N	3.2 % of CEC Calc.
Zn	8.8 mg/Kg	DTPA	Ca	68.1 % of CEC Calc.
Fe	74 mg/Kg	DTPA	Mg	11.3 % of CEC Calc.
Mn	130 mg/Kg	DTPA	Na	8.3 % of CEC Calc.
			K	9.1 % of CEC Calc.
			H	0.0 % of CEC Calc.

Lab Analyst:

*Mike Galloway*

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Plant Nutrition Tech.  
380 Tennant Ave. #6  
Morgan Hill, CA 95037  
Attn: Dennis Amoroso

Lab Number: 6050194-2/2  
Project #/Name: None / None  
Sample ID: BioRoc Bacteria 1

Your Values (lbs/acre 6" deep)		Suggested Values	RECOMMENDATIONS ALL VALUES lbs/acre 6" deep	
Ammonia (NH <sub>3</sub> -N)	320	10-50 High	0 Nitrogen (N)	
Nitrate (NO <sub>3</sub> -N)	860	20-100 High	50 Phosphorous (P <sub>2</sub> O <sub>5</sub> )	
Total Available N	1200	75-150 High	0 Potassium (K <sub>2</sub> O)	
Phosphorous(P <sub>2</sub> O <sub>5</sub> )	240	100-300 OK	0 Gypsum (CaSO <sub>4</sub> )	
Potassium (K <sub>2</sub> O)	1500	797-1328 High	0 Lime (CaCO <sub>3</sub> )	
Calcium (Ca)	8600	6790-8488 High	2000 Dolomite (CaCO <sub>3</sub> & MgCO <sub>3</sub> )	
Magnesium (Mg)	450	679-1358 Low	0 Sulfur	
Sulfate (SO <sub>4</sub> -S)	2000	100-200 High	*Gypsum adds Ca and doesn't affect pH; Lime adds Ca and raises pH; Dolomite adds Ca & Mg & raises pH.	
Sodium (Na)	980	< 250 See SAR		
Chloride (Cl)	300	1-100 High	Lime Requirement:	
ECe (dS/m)	11	0.2-4 High	Tons of 100% CaCO <sub>3</sub> Lime per Acre 6" deep	
Copper (Cu)	220	1 + OK	needed to raise pH of soil to:	
Zinc (Zn)	25	3 + OK	pH 6.0 needs 0.0	
Iron (Fe)	480	8 + OK	pH 6.5 needs 0.2	
Manganese (Mn)	400	4 + OK	pH 7.0 needs 0.7	
Boron (B)	2.5	1-4 OK	Gypsum Requirement (needed for clay treatment)	
SAR	3.2	0-6 OK	-7.3 tons per acre 6" deep	
CEC (meq/100gms)	28	10-20 OK	Gypsum helps the soil structure by "loosening" the soil	
ESP (%)	7.6	0-10 OK		
pHs Value	6.3	6.5-7.5 Low		
Organic Matter (%)	6.2			
Data:		Method	Data:	Method
NO <sub>3</sub> -N	430 mg/Kg	KCl	OrgMat	6.2 % WalkBk
NH <sub>3</sub> -N	160 mg/Kg	KCl	Org-C	3.6 % WalkBk
P	54 mg/Kg	Olsen	SMP Buffer pH	7.17 unit SMP
SP	82 %	Sat	GypReq	-8.5 meq/100g GypSol
pHs	6.3 unit	Sat	Ca	4300 mg/Kg NH <sub>4</sub> OAc
ECe	11 dS/m	Sat	Mg	220 mg/Kg NH <sub>4</sub> OAc
Ca	170 meq/L	Sat	Na	490 mg/Kg NH <sub>4</sub> OAc
Mg	21 meq/L	Sat	K	640 mg/Kg NH <sub>4</sub> OAc
Na	31 meq/L	Sat		
K	10 meq/L	Sat		
Cl	5.1 meq/L	Sat		
SO <sub>4</sub> -S	38 meq/L	Sat	Cation Exchange Capacity (CEC) and Base Saturation Percentages	
SAR	3.2 ratio	Calc	CEC	28 meq/100gm Calc.
B	1.2 mg/Kg	CaCl2	NH <sub>3</sub> -N	4.0 % of CEC Calc.
Cu	110 mg/Kg	DTPA	Ca	76.0 % of CEC Calc.
Zn	12 mg/Kg	DTPA	Mg	6.6 % of CEC Calc.
Fe	240 mg/Kg	DTPA	Na	7.6 % of CEC Calc.
Mn	200 mg/Kg	DTPA	K	5.8 % of CEC Calc.
			H	0.0 % of CEC Calc.

Lab Analyst:

*Mike Galloway*