START HERE

OrganiCalc Pro - Logan Labs

Enter Your Report Details

Date printed to pdf: Nov-5-2025

Enter a Name For This Report

Usually the same name as your soil sample.

***Report name:** Test Report

Enter Your Email Address

This is the address where your report will be sent

***Email address:** alice@growabundant.com

Which Test Report(s) Do You Wish To Enter?

***Test Report(s):** Soil & Saturated Paste & Irrigation Water

Select Your Next Crop

OrganiCalc sets pH and mineral targets based on the crop. Optionally, let us know your previous crop and how it did.

***Next crop:** Mixed vegetables
Last crop: Veggies
Comments: Doing well

Are You Growing Inside or Outside?

For poly tunnels or hoop houses, choose Inside.

***Where are you growing?** Outside

Select Your Soil Type

***Soil type:** Sand
This soil is calcareous. FALSE

Calcareous soils have a limestone base. See: this link

Enter the Area to Amend

This is usually the area of all your beds. Include path area if you will be amending the paths as well.

***Area to amend:** 2400 sq feet

Depth to Mix Amendments

Select all that apply. If all the choices are FALSE we assume you will mix in the amendments to a depth of 6 inches (15 cm).

***This soil is in a raised bed.** FALSE

We assume you will dig the amendments in to the full depth of the bed, up to 12 in. (30 cm) unless you select TRUE for no-till, below.

***This is no-till. The amendments cannot be dug in.** TRUE

Select Pro Options

I want to enter the depth manually. FALSE
I want to adjust the mineral targets. TRUE
I want to edit the list of soil amendments. TRUE

Scroll up to go to the next tab, Logan Labs Soil Test Report.

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Logan Labs Soil Test Report

Date printed to pdf: Nov-5-2025

Enter your soil test report. Entries with a * are required. Tab to step forward through the cells; shift-tab to step backwards.

Test Date: 3/27/25

***Soil test type:** Logan Labs Std M3 w/ extras

Report name:
Test Report

Logan Labs Std M3 w/ extras Test Report			Alerts
Sample Location		Main	
Sample ID		Garden	
Lab Number			
*** Sample Depth in Inches**		6	
*** Total Exchange Capacity (M.E.)**		9.48	
*** pH of Soil Sample**		7.10	
*** Organic Matter (%)**		3.24	
*** Sulfur:**	**ppm**	25	
Mehlich III as (P2O5)			
*** Phosphorus lbs/acre**		541	
Calcium:	Desired value		
*** lbs/acre**	**Value found**	2713	
	Deficit		
Magnesium:	Desired value		
*** lbs/acre**	**Value found**	411	
	Deficit		
Potassium:	Desired value		
*** lbs/acre**	**Value found**	313	
	Deficit		
*** Sodium: lbs/acre**		80	
*** Calcium (60 to 70%)**		71.55	
*** Magnesium (10 to 20%)**		18.06	
*** Potassium (2 to 5%)**		4.23	
*** Sodium (.5 to 3%)**		1.84	
Other Bases (Variable)		4.30	
Exchangable Hydrogen (10 to 15%)		0	
*** Boron (ppm)**		2.25	
*** Iron (ppm)**		106	
*** Manganese (ppm)**		35	
*** Copper (ppm)**		3.60	
*** Zinc (ppm)**		11.90	
Aluminum (ppm)		166	
Cobalt (ppm)		0.39	
Molybdenum (ppm)		0.14	
Ammonium (ppm)		0.90	
Nitrate (ppm)		6.8	
Selenium (ppm)		0.28	
Silicon (ppm)		13	
Estimated Nitrogen Release #N/Ac.		82	
EC mmhos/cm		0.18	

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Nitrogen Target and Amendments

Nitrogen Target and Amendments

Date printed to pdf: Nov-5-2025

Adjust the nitrogen target as needed and select your nitrogen or compost sources.

Report name: Test Report

Select Nitrogen Target

Read the link below to adjust the nitrogen target for your circumstances and experience.

Adjust amount according to experience: See this link for *"How Much Nitrogen Shall I Apply?"*

Default target: 186

Enter new target: lbs/acre — Independent of depth to apply.

The default N target was reduced by the 14 lbs/acre of nitrate-N in the soil.

Choose Compost / Nitrogen Amendments

Choose two amendments from the pull-down lists or enter your own amendment.

The best compost / nitrogen source for this soil will have an (N - P - K) ratio close to (1.9 - 0 - 1.7)

1 Feather Meal (12 - 0 - 0)

2 No Compost / Nitrogen Source (0 - 0 - 0)

Or Enter Your Own Amendment to replace item 1

Name: **N** **P** **K** P as P2O5, K as K2O

☑ **Check box to use additional compost or other organic carbon-based N-P-K amendments**

Add Amendment 1

Enter the N-P-K of the amendment. If it is a compost, also enter the moisture content (usually 50-60%).

Name: **Nutrients are reported dry:** ☑

	N	P (as P2O5)	K (as K2O)	Moisture
Enter N-P-K:	%	%	%	% 0
Check to exceed N or P or K target ->	☐	☐	☐	

Select % To Use 0

This controls the amount of amendment 1 and the balance with amendment 2.

<- Recommended Amount of Amendment 1

Add Amendment 2

Enter the N-P-K of the amendment. If it is a compost, also enter the moisture content (usually 50-60%).

Name: **Nutrients are reported dry:** ☑

	N	P (as P2O5)	K (as K2O)	Moisture
Enter N-P-K:	%	%	%	% 0
Check to exceed N or P or K target ->	☐	☐	☐	

Select % To Use 0

This controls the amount of amendment 1 and the balance with amendment 2.

<- Recommended Amount of Amendment 2

Do these amendments supply the recommended N, P and K?

Nitrogen?	yes	100%	If P and K are not 100%, OrganiCalc may recommend P and/or K mineral amendments
Phosphorus?	yes	100%	
Potassium?	no	0%	

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Amendment Recommendations

Amendment Recommendations with Notes

Date printed to pdf: Nov-5-2025

Report name: Test Report

Recommendations are for Mixed vegetables

Test Date: 3/27/25

Recommended Amendments for 2400 sq feet, 6 inches deep

Select weight units: **lbs/oz**

		Notes
Kelp and/or Azomite, combined (for trace minerals)	24 lbs	Alternatively, foliar feed Kelp every 2 weeks or as needed to supply trace minerals. Soil applied trace mineral amounts may be eliminated or reduced after the initial application.
Feather Meal (12 - 0 - 0)	85 lbs	Apply close to transplanting or seeding. Usually it is also sidedressed a couple times during the season, or a liquid N is applied. Microbial activity breaks down feather meal into plant available nitrogen. For this to happen it needs to be in contact with the soil and kept moist. Scratch it in and preferably cover with a light mulch.
Potassium Sulfate	17 lbs	
Tiger-90 Elemental Sulfur	7 lbs 5 oz	The pH adjustment and the Tiger-90 elemental sulfur amendment is optional for this soil. It takes time, warm weather and microbial activity for elemental sulfur to break down into sulfate, lower the soil pH and become plant available. In cold climates spring application is preferred. In warm climates a summer or fall application may not be available before next year. Sulfur is likely to diminish potassium reserves; retest in 6-12 months.
Sodium Molybdate Dihydrate	4.0 oz	Elemental molybdenum is very mobile in the soil. Small amounts may be dissolved in water and sprayed separately on the soil. Apply or re-apply before every crop.
Total weight of all amendments:	135	lbs

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Amendment Notes

Date printed to pdf: Nov-5-2025

Report name: Test Report

Test Date: 3/27/25

General

A handful or two of vermicompost dug in under transplants can increase yields substantially. Inoculate with mycorrhizae and other beneficial microbes. Try to get organic matter to 5%; 10% is better, 30% is more than enough. Apply compost as it is available. The compost I can make or purchase is best used as mulch. I cover it with a bit of straw to keep it moist and alive, and decaying in place. A one-time or cumulative application of 0.6 inches of charged biochar will improve yields and quality in about 3 years.

No-Till

Elemental Sulfur to Lower pH

If this soil is calcareous, ignore the sulfur recommendation. To determine whether the soil is calcareous or is simply over-limed see https://growabundant.com/how-to-do-a-fizz-test/#calcareous

Nitrogen for Vegetables

Modify the amount and timing according to your experience: https://growabundant.com/how-much-nitrogen-shall-i-add/

Cabbage, broccoli, and potatoes require 300 lbs/ac nitrogen. Celery even more. Lettuce, spinach, and turnips (especially) appreciate less. If your organic matter is of good quality, that will be enough N for carrots. Apply nitrogen close to transplanting or seeding. Usually a portion is sidedressed a couple times during the season, or a liquid N is applied.

Silicon

Available silicon has been found to be beneficial to plants. Foliar feed potassium silicate as a mildew preventative (check with your certifier). Soil-applied basalt rock dust has also been shown to supply silicon in low pH, weathered soils.

Foliars and Drenches

Foliar feeding notes: https://growabundant.com/foliar-feeding/

Foliar a calcium boron mix such as BioMin Cal-Boro per the label instructions. This is especially important during fruit set to stimulate cell division. Maintain a control.

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Amendment Recipes

Date printed to pdf: Nov-5-2025

Report name: Test Report

Soil Test Date: 3/27/25
Paste Test Date: 3/27/25
Water Test Date: Mar-24-2025

Amendment recipe & recipes for alternative areas (for example, per bed)

Select weight units in lbs/oz or kg/g on the Amendment Recommendations tab. Read the notes there too.

		Enter up to 4 areas in sq feet			
Recommended Amendments for 6 inches deep	**2400 sq feet**	100 sq feet	50 sq feet	25 sq feet	10 sq feet
Kelp and/or Azomite, combined (for trace minerals)	24 lbs	1 lb	8 oz	4.0 oz	1.6 oz
Feather Meal (12 - 0 - 0)	85 lbs	3 lbs 9 oz	1 lb 13 oz	14 oz	5.7 oz
Potassium Sulfate	17 lbs	12 oz	5.9 oz	3.0 oz	1.2 oz
Tiger-90 Elemental Sulfur	7 lbs 5 oz	4.9 oz	2.4 oz	1.2 oz	0.5 oz
Sodium Molybdate Dihydrate	4.0 oz	0.2 oz	0.1 oz		

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Analysis Details

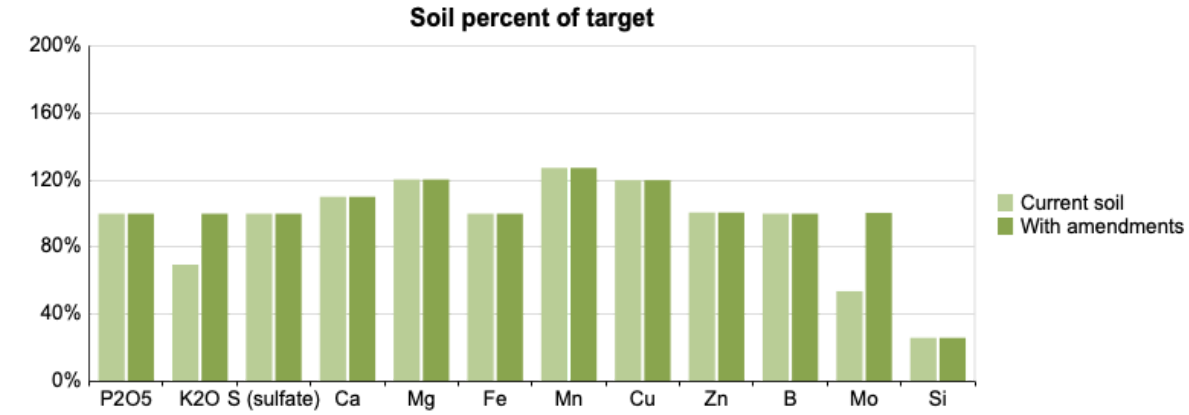
Soil Analysis Details (6" furrow depth)

This page provides information about the soil nutrient amounts needed and supplied by the amendments.

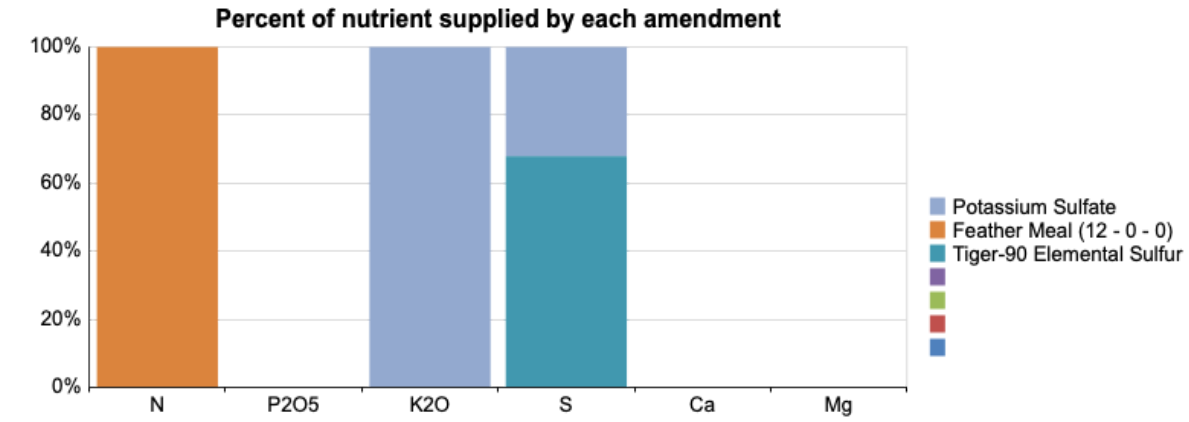
Report name: Test Report

	Measured (lbs/ac)	Target % base sat.	Target (lbs/acre)	Measure-ment percent of target	Applica-tion limit (lbs/ac)	Amount needed (lbs/ac)	Amount to be applied (lbs/ac)	Measured plus amount to be applied (lbs/ac)	How'd we do? % of target this application
N	--		186			186	186		100%
P2O5	541		458	118%	100000	0	0	541	118%
P	236		200	118%	100000	0	0	236	118%
K	313	5.0%	450*	70%	100000	137	137	450	100%
K2O	377		542	70%	100000	165	165	542	100%
S (as sulfate)	50		50	100%	100000	0	57	107	213%
S (as elemental)	-		120	-	300	120	120	-	100%
Ca	2713	65%	2465	110%	100000	0	0	2713	110%
Mg	411	15%	341	120%	307	0	0	411	120%
Fe	212		100	212%	100000	0	0	212	212%
Mn	70		55	127%	100000	0	0	70	127%
Cu	7.2		6	120%	100000	0.0	0.0	7.2	120%
Zn	23.8		23.6	101%	100000	0.0	0.0	23.8	101%
B	4.5		4.5	100%	100000	0.0	0.0	4.5	100%
Na	80	1.0%	44	183%	100000	0	0	80	
Co	0.78		0.7 to 4.0	100%	100000	0.0	0	0.8	
Mo	0.28		0.5 to 2.1	54%	100000	1.8	1.8	2.1	100%
Si	26		100	26%	100000	74	0	26	26%

* This target is set by the minimum amount per acre rather than target %.



Note: P ranging between 100% and 200% target has been set to 100% and has been divided in half above 200% target. Fe above 100% has been set to 100%. Sulfur between 100% and 400% target has been set to 100% and has been divided by 4 above 400%. Most excesses of these elements are not harmful.



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Summary

Summary

Date printed to pdf: Nov-5-2025

Report name: Test Report

		Soil					Paste (City Water)					Water			
Test date:		3/27/25					3/27/25					Mar-24-2025			
	Units	Measured value	Target	% Target as measured	% Target after amending	Status	Measured value	Target low	Target high	% target	Status	Measured value	Target low	Target high	Status
Soil Properties															
Total Exchange Capacity	meq/100g	9.5													
Organic matter	%	3.24													
pH	no units	7.1	6.8			High	6.9	*6*	*7.0*	100%	Balanced	8.10	*6.5*	*7.0*	Very High
Nitrogen, Phosphorus and Potassium															
Nitrate-N (NO_3^- - N)	ppm	6.80				Balanced									
Ammonium-N (NH_4^+ - N)	ppm	0.90													
Phosphorus (P)	ppm	118	*100*	118%		Balanced	1.45	*0.3*	*3.0*	100%	Balanced				
Potassium (K)	ppm	157	*225*	70%	100%	Low	4	*20*	*30*	18%	Very Low	3	*2*	*10*	Balanced
Soluble Salts and Conductivity															
Nitrate-N (NO_3^- - N)	ppm	6.80				Balanced									
Chloride (Cl)	ppm						100	0	*60*	167%	High	78		*70*	High
Bicarbonate (HCO_3^-)	ppm						110	0	*90*	122%	High	101		*100*	High
Sulfur in Sulfate (SO_4 - S)	ppm	25	*25*	100%	213%	Balanced	20.1	*5*	*120*	100%	Balanced	29		*90*	Balanced
Calcium (Ca)	ppm	1357	*1232*	110%		Balanced	42	*52*	*62*	80%	Low	50	*40*	*80*	Balanced
Magnesium (Mg)	ppm	206	*171*	120%		Balanced	12	*11*	*14*	100%	Balanced	19	*30*	*50*	Low
Potassium (K)	ppm	157	*225*	70%	100%	Low	4	*20*	*30*	18%	Very Low	3	*2*	*10*	Balanced
Sodium (Na)	ppm	40	*22*	183%		Balanced	13		*5*	258%	Very High	36		*50*	Balanced
Soluble salts	ppm						241	0	*500*	100%	Balanced				
EC	mS/cm	0.18				Balanced	0.38		*0.78*	48%	Balanced	0.54		*0.75*	
Cation balance															
Calcium (Ca)	%	71.6%	*65%*	110%		Balanced	55%	*55%*	*60%*	100%	Balanced				
Magnesium (Mg)	%	18.1%	*15%*	120%		Balanced	27%	*17%*	*20%*	137%	High				
Potassium (K)	%	4.2%	*5.0%*	85%		Low	2%	*12%*	*17%*	20%	Very Low				
Sodium (Na)	%	1.8%	*1.0%*	184%		Balanced	15%		*12%*	124%	Balanced				
Micronutrients															
Boron (B)	ppm	2.25	*2.3*	100%		Balanced	1.47	*0.05*	*0.50*	294%	Very High	0.07		*0.5*	Balanced
Iron (Fe)	ppm	106	*50*	212%		Balanced	1.24	*0.50*	*1.50*	100%	Balanced	< 0.1		*0.1*	Balanced
Manganese (Mn)	ppm	35	*28*	127%		Balanced	0.05	*0.14*	*0.30*	36%	Low				
Copper (Cu)	ppm	3.6	*3*	120%		Balanced	0.03	*0.05*	*0.08*	60%	Low				
Zinc (Zn)	ppm	11.9	*11.8*	101%		Balanced	< 0.02	*0.07*	*0.15*	1%	Very Low				
Aluminum (Al)	ppm	166				Balanced	1.04		*1.50*	Infinity	Balanced				
Cobalt (Co)	ppm	0.39	*0.4 to 2.0*	100%											
Molybdenum (Mo)	ppm	0.14	*0.3 to 1.0*	54%	100%	Low									
Selenium (Se)	ppm	0.28	0												
Silicon (Si)	ppm	13	*50*	26%		Low									

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Mineral Targets

Modify Mineral Targets (optional)

Date printed to pdf: Nov-5-2025

OrganiCalc defaults may be modified here.

Report name: Test Report

These mineral targets are not default: B,

Adjust pH

If your soil pH is higher than the recommended range for your crop we will attempt to lower it with elemental sulfur.

	Target pH		Elemental Sulfur S (lbs/ac)
Default target:	6.8	*Default target:*	120
Enter new target:		**Enter new target:**	

Your soil pH is 7.1. The ideal pH range for 'Mixed vegetables' is between 6.0 and 7.0. Your soil pH is higher than recommended.Elemental sulfur is being recommended to lower the pH. To eliminate the recommendation, enter an Elemental S new target of zero.

Adjust Calcium, Magnesium and Potassium Targets

We use the larger of the base saturation % target and the miniumum cation target for calcium, magnesium and potassium.

Minimum cation target(s) will be used for: K

Base Saturation %	Calcium Ca (%)	Magnesium Mg (%)	Potassium K (%)	Sodium Na (%)
Measured:	71.6%	18.1%	4.2%	1.8%
Default target:	65%	15%	5.0%	1.0%
Enter new target (%):				

Minimum cation targets	Calcium Ca (lbs/ac)	Magnesium Mg (lbs/ac)	Potassium K (lbs/ac)
Measured:	2713	411	313
Default target:	2000	300	450
Enter new target (lbs/ac):			

Adjust Phosphorus and Micronutrient Targets

To eliminate recommendation of an element, enter a new target equal to the measured value.

	Elemental Phosphorus (P)	Boron (B)	Iron (Fe)	Copper (Cu)	Manganese (Mn)	Zinc (Zn)	Molybdenum (Mo)	Cobalt (Co)
Measured:	118 pmm	2.25 ppm	106 ppm	3.60 ppm	35 ppm	11.90 ppm	0.14 ppm	0.39 ppm
Default target:	100 ppm	3.0 ppm	50 ppm	3.0 ppm	28 ppm	12 ppm	1 ppm	2 ppm
Enter new target (ppm):		2.25						

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Soil Amendments

Modify Soil Amendments (optional)

Soil Amendment Values (% by weight) used for calculations

Check the box to the left to have OrganiCalc consider using the amendment. You may edit the amendment name and percent of each element.

Use?	All values are in percent.	P2O5	K2O	S	Ca	Mg	Fe	Na	Si	Applica-tion limit (lbs/ac)
☐	Bone Meal	29.9			12.0			5.7		
☐	Wollastonite (see note)				34.0				24.0	
☑	Phosul Soft Rock Phosphate	20.0			20.0					
☑	Gypsum (Solution grade)			17.0	20.5					
☑	Potassium Sulfate		51.0	17.5						
☑	Greensand		7.0				9.0			
☑	Agricultural Limestone (100 mesh or finer)				39.0					8000
☑	Dolomitic Limestone (100 mesh or finer)				22.0	13.0				8000
☑	K Mag, Langbeinite, Sul-Po-Mag		22.0	22.0		11.0				
☑	Epsom Salts			13.0		10.0				

Use?	All values are in percent.	Ca	Mg	S	Fe	Mn	Cu	Zn	B	Co	Mo	Applica-tion limit (lbs/ac)	Liquid?	Liquid density lbs/gal
☑	Tiger-90 Elemental Sulfur			90.0								333		
☐													☐	
☐													☐	
☑	Solubor								20.0				☐	
☑	Ferrous Sulfate Heptahydrate			18.0	20.0								☐	
☑	Manganese (not Magnesium) Sulfate			19.0		32.0							☐	
☑	BioMin Copper (4% Cu)						4.0						☑	9.20
☑	Zinc (Zn) Sulfate (Monohydrate)			17.0				35.0					☐	
☑	Cobalt (Co) Sulfate Heptahydrate			17.0						33.0			☐	
☑	Sodium Molybdate Dihydrate										39.6		☐	

Trace Mineral Sources

By default Azomite and Kelp will be recommended. When K is excessive, only Azomite will be recommended.

	Application rate (total for all trace minerals)	435	lbs/ac
☑	Kelp		
☑	Azomite		

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Logan Labs Saturated Paste Test Report

Date printed to pdf: Nov-5-2025

Report name: **Test Report**
Test Date: 3/27/25
Water Used: City

	Units	Value	Targets Low	Targets High	Measure-ment % of Target	Comments
pH		6.90	6	7	100%	
Soluble salts	ppm	241	0	500	100%	
Chloride (Cl)	ppm	100	0	60	167%	Cl is high. Check water or amendments
Bicarbonate (HCO_3^-)	ppm	110	0	90	122%	Bicarb is high. Check water or amendments
Sulfur (S)	ppm	20.06	5.0	120	100%	
Phosphorus (as P)	ppm	1.45	0.3	3.0	100%	
Calcium (Ca)	ppm	41.62	52	62	80%	
Calcium (Ca)	meq/l	2.08	2.6	3.1		
Magnesium (Mg)	ppm	12.37	11	14	100%	
Magnesium (Mg)	meq/l	1.02	0.87	1.13		
Potassium (K)	ppm	3.55	20	30	18%	K is low in soil and paste
Potassium (K)	meq/l	0.09	0.51	0.77		
Sodium (Na)	ppm	12.88	0	5	258%	
Sodium (Na)	meq/l	0.56	0	0.22		
Calcium (Ca)	%	55%	55%	60%	100%	
Magnesium (Mg)	%	27%	17%	20%	137%	
Potassium (K)	%	2.4%	12%	17%	20%	K% is low in soil and paste
Sodium (Na)	%	14.9%	0	12%	124%	
Boron (B)	ppm	1.47	0.05	0.5	294%	
Iron (Fe)	ppm	1.24	0.5	1.5	100%	
Manganese (Mn)	ppm	0.05	0.14	0.3	36%	
Copper (Cu)	ppm	0.03	0.05	0.08	60%	
Zinc (Zn)	ppm	< 0.02	0.07	0.15	1%	
Aluminum (Al)	ppm	1.04	0	1.5	100%	

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Water Test Report

Irrigation Water Test Report

Date printed to pdf: Nov-5-2025

Job Name: Test Report
Sample Location: City
Sample Name:
Run Date: 3/24/2025

	Units	Value	Target Range		Warnings	Warning Levels
pH	(no units)	8.1	6.5	7.0	High	Low, Safe, High
Hardness	ppm	204	50	150	Hard	Soft, Moderate, Hard, Very Hard
Hardness	grains/ gallon (calculated)	11.9				
Conductivity	mmhos/cm	0.54	0	0.75	Safe	Safe, Concerning, High, Severe
Sodium Adsorption Ratio (SAR)	sqrt(mmole/L) (calculated)	1.08			Safe	Safe, Moderate, High

	Value (ppm)	Value (meq/l)	Value (lbs/ac-in)	Target Range (ppm)		Warnings	Warning Levels
Calcium (Ca)	49.9	2.49	11.3	40	80	Safe	Low, Safe, High
Magnesium (Mg)	19.3	1.59	4.4	30	50	Low	Low, Safe, High
Potassium (K)	2.8	0.07	0.6	1.5	10	Safe	Low, Safe, High
Sodium (Na)	35.5	1.54	8.1	0	50	Safe	Low, Safe, High
Iron (Fe)	< 0.1		0.0	0	0.1	**Safe**	Safe, High
Total cations (calculated)		5.69					
Total Alkalinity	83	1.66	18.9	60	180	**Safe**	Low, Safe, High
Carbonate (CO_3^{2-})	0	0.00	0.0	0	15	Safe	Safe, High
Biarbonate (HCO_3^-)	101	1.66	23.0	0	100	Moderate	Safe, Moderate, Severe
Chloride (Cl)	78	2.20	17.7	0	70	Low	Safe, Low, Moderate, Severe
Sulfate (SO4)	88	1.83	20.0	0	90	**Safe**	Low, Safe, High
Total anions (calculated)		5.69					
Salt Concentration	345.6	(calculated)	78.55	0	500	Safe	Safe, Low, Moderate, Severe
Boron (B)	0.07		0.02	0	0.5	Safe	Safe, Very Low, Low, Moderately Low, Moderately High, High, Severe

	Units	Value	Expected Range		Warnings	Warning Levels
Cation/Anion Ratio (calculated)		1.00	0.8	1.2		
Nitrate	ppm		0	5		Safe, High
P ppm	ppm		0	0.4		Safe, High
pHc	(no units)					
Adj. SAR	sqrt(mmole/L)		Not applicable - use SAR			Not applicapble for low alkalinity water

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Water Analysis

Irrigation Water Analysis Notes - City - 3/24/2025

Salinity Concerns	See reference
None.	High salinity (a high quantity of dissolved minerals in the water) decreases the ability of plant roots to take up water. Plants may wilt even though the soil has plenty of moisture. Plant tolerance for salts varies by plant species.
Alkalinity Concerns (Usually Due to Bicarbonates)	See reference
Irrigation water not suited for seedlings.	Even slightly high alkalinity has a detrimental effect on seedlings and potted plants. In the extreme it is a problem for field crops, especially in light soil where bicarbonates can build up and raise soil pH.
Water Infiltration Problems Due to High Sodium Adsorption Ratio	See reference
None.	Irrigation water with high sodium adsorption ratio and low conductivity can lead to a buildup of sodium in the soil, causing the soil to lose porosity and form a hard layer at the surface that water cannot penentrate.
Sodium Removal of Calcium and Magnesium	See reference
None.	High residual sodium carbonate (RSC) will tend to renove calcium and magnesium from the soil, increasing the percentage of sodium which in turn clogs air pores in clay soils. High RSC irrigation water should be treated with gypsum to supply additional calcium.
Boron Toxicity Concerns	See reference
None.	Boron at high levels can be toxic to plants.
Chloride Toxicity Concerns	See reference
Sensitive plants usually show slight to moderate injury.	Chloride at high levels can be toxic to plants.
Iron Toxicity Concerns	See reference
None.	Iron at high levels can be toxic to plants. At lower levels it may cause staining and emitter plugging.
Overhead Watering Concerns - Leaf Burns and Stains	See reference
None.	Overhead watering with water high in sodium or chlorine can cause leaf burn. Water high in iron can cause staining.
Overhead Watering Concerns - Hard Water Spots	See reference
None.	Hard water can cause white spots on foliage when overhead irrigation is used. White spots can be mitigated by irrigating at night or on cloudy days when evaporation is low.
Concerns For Use In Foliar Spray Mixes	See reference
Excess biacarbonates. Do not use this water for a foliar spray.	The water used for foliar sprays should be quite pure and of slightly acid pH so as to not interfere with any of the spray active ingredients.
Drip Irrigation Emitter Plugging Concerns	See reference
Due to: Soluble salts: None. Iron: None. Calcium: moderate Alkalinity: none	Drip emitters can be plugged by lime deposits, excess iron and high alkalinity, as well as other causes not measured on an irrigation test such as particles and algae.
Corrosion Concerns	See reference

None.	Water with pH under 6.5 can corrode metal pipes and fittings.

Minerals Supplied By Irrigation Water

>>> Enter irrigation amount in inches: 12

Calcium:	136 lbs/acre	Boron:	0.19 lbs/acre
Magnesium:	53 lbs/acre	Carbonate:	0 lbs/acre
Potassium:	8 lbs/acre	Bicarbonate:	275 lbs/acre
Sodium:	97 lbs/acre	Chloride:	213 lbs/acre
Sulfate:	240 lbs/acre	Nitrate - N:	0 lbs/acre
Iron:	0 lbs/acre	Phosphorus:	0.0 lbs/acre

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https://growabundant.com/how-to-interpret-a-water-test-report/

OrganiCalc (A4210), Submit received using form at https://growabundant.com/ at 2025-11-06T00:04:14.