SOIL REPORT

ADVANCED NUTRIENTS



Imperial Analytics 1703 Giuntoli Lane Suite B Arcata, CA 95521 707-630-4173 Monday - Friday 9 a.m. - 4 p.m. lab@imperialanalytics

Analysis Type	Result	Optimal Range
рН	7.5	6 - 7
Electrical Conductivity * EC (dS/m)	0.50	0.5 - 2
Bulk Density (g/cm³)	0.63	1.1-1.5
Buffer pH	7.2	
Soluble Plant Available Macror		
Analyte Type in ppm	Result	Optimal Range (ppm)
Calcium (Ca)	28	80 - 400
Magnesium (Mg)	10	30-70
Potassium (K)	90	60-200
Sodium (Na)	8	0 - 80
Nitrate (NO ₃ -N)	36	70 - 200
Phosphate (PO ₄ ³⁻ -P)	4	15 - 25
Micronutrients		
Analyte Type in ppm	Result	Optimal Range (ppm)
Zinc (Zn)	23	14 - 30
Manganese (Mn)	3	8 - 30
Copper (Cu)	2	2 - 30
Iron (Fe)	37	25 - 50
Boron (B)	0.6	0.5 - 2.5
Chloride (Cl ⁻)	ND	<45
Total Plant Available Macronu	ıtrients	
Analyte Type in ppm	Result	Optimal Range (ppm)
Calcium (Ca)	6501	2000-4000
Magnesium (Mg)	921	100-500
Potassium (K)	2408	150-800
Sodium (Na)	55	See ESP
Nitrate (NO ₃ ⁻ -N) ppm	49	
Phosphate (PO43P) ppm	176	
Calculated Percent Exchangeabl	le Cations	
Calculated Percent Exchangeable How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will	add up to 100%. By incr	
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges	add up to 100%. By incr see comments for furth	er instruction.
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent	add up to 100%. By incr see comments for furth Result	Optimal Range (%)
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca)	add up to 100%. By incr see comments for furth Result	Optimal Range (%)
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg)	add up to 100%. By incr see comments for further Result	Optimal Range (%) 45
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K)	add up to 100%. By incr see comments for furth Result 21 7 66	Optimal Range (%) 45 9 38
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na)	add up to 100%. By incresee comments for furthing the second of the seco	Optimal Range (%) 45
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi	add up to 100%. By incr see comments for furth Result 21 7 66 6	Optimal Range (%) 45 9 38 <5
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type	Result 21 7 66 6 um Ratio Result	Optimal Range (%) 45 9 38 <5 Optimal Ratio
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg	Result 21 7 66 6 um Ratio Result 1.8	Optimal Range (%) 45 9 38 <5
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg Calculated Salinity & Lime Requ	add up to 100%. By increse comments for further see comments for furthe	Optimal Range (%) 45 9 38 <5 Optimal Ratio >3
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg Calculated Salinity & Lime Requ Analysis Type	Result 7 66 6 um Ratio Result 1.8	Optimal Range (%) 45 9 38 <5 Optimal Ratio >3 Optimal Range
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg Calculated Salinity & Lime Requ Analysis Type SAR (sodium absorption ratio)	Result 21 7 66 6 um Ratio Result 1.8 irement Result 0.2	Optimal Range (%) 45 9 38 <5 Optimal Ratio >3 Optimal Range <13
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg Calculated Salinity & Lime Requ Analysis Type SAR (sodium absorption ratio) ESP (exchangeable sodium percent)	Result 7 66 6 um Ratio Result 1.8	Optimal Range (%) 45 9 38 <5 Optimal Ratio >3 Optimal Ratio 13 <15%
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg Calculated Salinity & Lime Requ Analysis Type SAR (sodium absorption ratio) ESP (exchangeable sodium percent) Lime Req* ibs/acre	Result 21 7 66 6 um Ratio Result 1.8 irement Result 0.2	Optimal Range (%) 45 9 38 <5 Optimal Ratio >3 Optimal Ratio 13 <15%
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg Calculated Salinity & Lime Requ Analysis Type SAR (sodium absorption ratio) ESP (exchangeable sodium percent) Lime Req* lbs/acre Organic Matter Panel	Result 21 7 66 6 4 wm Ratio Result 1.8 sirement Result 0.2 3	Optimal Range (%) 45 9 38 <5 Optimal Ratio >3 Optimal Ratio >3 Optimal Range <13 <15% 100% Calcium Carbonate to raise pH
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg Calculated Salinity & Lime Requ Analysis Type SAR (sodium absorption ratio) ESP (exchangeable sodium percent) Lime Req* lbs/acre Organic Matter Panel Analyte Type in ppm	Result 1.8 Result 21 7 66 6 um Ratio Result 1.8 result 0.2 3	Optimal Range (%) 45 9 38 <5 Optimal Ratio >3 Optimal Ratio >3 Optimal Range <13 <15% 100% Calcium Carbonate to raise pH Optimal Range
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg Calculated Salinity & Lime Requ Analysis Type SAR (sodium absorption ratio) ESP (exchangeable sodium percent) Lime Req* lbs/acre Organic Matter Panel Analyte Type in ppm Estimated Nitrogen Release ENR (Ib/acre)	Result 21 7 66 6 wm Ratio Result 1.8 suirement Result 0.2 3 Result 342	Optimal Range (%) 45 9 38 <5 Optimal Ratio >3 Optimal Ratio >3 Optimal Range <13 <15% 100% Calcium Carbonate to raise pH Optimal Range 80-150
How Calcium, Magnesium, Sodium, and Potassium relate to each other. These will decrease. If the percentages differ greatly from the given optimal ranges Analyte Type in Percent Calcium (Ca) Magnesium (Mg) Potassium (K) Sodium (Na) Calculated Calcium to Magnesi Analyte Type Ca:Mg Calculated Salinity & Lime Requ Analysis Type SAR (sodium absorption ratio) ESP (exchangeable sodium percent) Lime Req* lbs/acre Organic Matter Panel Analyte Type in ppm	Result 1.8 Result 21 7 66 6 um Ratio Result 1.8 result 0.2 3	Optimal Range (%) 45 9 38 <5 Optimal Ratio >3 Optimal Ratio >3 Optimal Range <13 <15% 100% Calcium Carbonate to raise pH Optimal Range

*Lime Requirement is reported as 100% CaCO₃ to a pH of 6.5 - Compare to the % CaCO₃ in your liming product to determine application rate.

ND - No Detection - This means there was not a detected amount of this substance in your sample.

Customer Contact:
Name: Jane Doe
Phone: 707-630-4173
Email: lab@imperialanalytics.com
Date Received: 02/04/2019
Report date: 02/08/2019
Report Approved by: ZM QC Approved by: LS
Sample Info:
Received by: IA
Sample Name: Garden
Lab ID: 8410 ntpa1
Results at a Glance:
See Page 2 for complete Interpretations & Recommendations
The reported lime application rate is intended to raise pH to 6.5, HOWEVER a soil can only process 5lb/100 sq-ft (10lb/100 cubic-ft) of
liming agent per application. Applications that are larger than 5lb/100Ft2 should be split with one half applied now and the half at the
end of the season before planting a cover crop.

For further details about your report give us a call to discuss a consultation. You can also check out our website at www.imperialanalytics.com for more information, helpful hints and disclaimers.