



AgSource Harris Laboratories

A Division of Cooperative Resources International

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WATER ANALYSIS

Submitted For

Golf Course
100 Links Lane
Somewhere, USA

Submitted By

John Doe
123 Deere St.
Somewhere, USA

SAMPLE MARKED

Irrigation Water

LABORATORY NUMBER

AI31191

DATE RECEIVED

9-July-2014

DATE REPORTED

10-July-2014

ANALYSIS OF CHEMICAL PROPERTIES		YOUR RESULTS			RATING OF YOUR RESULTS		
		UNIT OF MEASURE	RESULT	LBS/ ACRE FOOT	SATISFACTORY	POSSIBLE PROBLEM	PROBABLE PROBLEM
WATER CHARACTERISTICS	pH	-- --	7.58	-- --			
	Hardness	-- --	166.27	-- --			
	Bicarbonate	ppm	161.04	438.03			
	Carbonate	ppm	0.0	0.0			
IMPACT ON GENERAL PLANT GROWTH	Electrical Conductivity (ECw)	mmhos/cm	1.04	-- --			
	Total Soluble Salts	ppm	665.60	1810.43			
IMPACT FROM ROOT CONTACT	Sodium Chloride	meq/l	2.73	-- --			
	Boron	ppm	126.57	344.27			
	Boron	ppm	0.21	0.57			
IMPACT FROM FOLIAGE CONTACT	Sodium Chloride	ppm	62.89	171.06			
	Sodium Chloride	ppm	126.57	344.27			
IMPACT ON SOIL STRUCTURE	Sodium Absorption Ratio Adj	meq/l	3.84	-- --			
	Electrical Conductivity (ECw)	mmhos/cm	1.04	-- --			
	Total Soluble Salts	ppm	665.60	1810.43			
To maintain good soil structure in arid regions, irrigation water should have the capacity to replace the soluble salts being dissolved. If the salts being dissolved are not replaced, a decrease in permeability may occur.					No anticipated difficulty with most crops.	Some difficulty for sensitive & moderately sensitive crops.	Significant difficulty for most crops.

ANALYSIS OF NUTRIENTS						
PLANT NUTRIENTS AS NORMALLY REPORTED IN WATER ANALYSIS	RESULTS AS PPM	NUTRIENTS CONVERTED TO BASIC FERTILIZER MATERIAL FORMS	RESULTS LB/ACRE FOOT	MEQ / LITER		
NITRATE (NO ₃ -N)	7.55	NITROGEN (N)	20.54	CATIONS	K+	0.35
PHOSPHATE (PO ₄)	1.04	PHOSPHATE (P ₂ O ₅)	2.11		Na+	2.73
POTASSIUM (K)	13.80	POTASH (K ₂ O)	44.71		Ca ⁺⁺	2.77
MAGNESIUM (Mg)	6.81	MAGNESIUM OXIDE (MgO)	30.64		Mg ⁺⁺	0.57
CALCIUM (Ca)	55.34	CALCIUM (Ca)	150.52	ANIONS	Cl-	3.57
SULFATE (SO ₄)	108.26	SULFUR (S)	97.43		SO ₄ ⁻⁻	2.26
MANGANESE (Mn)	0.01	MANGANESE (Mn)	0.03		HCO ₃ ⁻	2.64
IRON (Fe)	0.06	IRON (Fe)	0.16		CO ₃ ⁻⁻	0.0
BORON (B)	0.21	BORON (B)	0.57		PO ₄ ⁻⁻⁻	0.01
					NO ₃ ⁻	0.54

pHc	7.59
Total Cations	6.42
Total Anions	9.02
SAR	2.11

IRRIGATION SUITABILITY INTERPRETATION

ANALYSIS	UNIT	SATISFACTORY	POSSIBLE PROBLEM	PROBABLE PROBLEM
WATER CHARACTERISTICS				
Water pH		-----	-----	-----
Hardness		0 - 125	126 - 245	> 245
Bicarbonate	ppm	0 - 111	112 - 525	> 525
Carbonate	ppm	0 - 12	13 - 62	> 62
IMPACT ON GENERAL PLANT GROWTH				
Electrical Conductivity	mmhos/cm	0 - .75	.75 - 3.0	> 3.0
Total Soluble Salt	ppm	0 - 480	481 - 1950	> 1950
IMPACT FROM ROOT CONTACT				
Sodium	meq/l	0 - 2.9	3.0 - 9.0	> 9.0
Chloride	ppm	0 - 140	141 - 360	> 360
Boron	ppm	0 - 0.5	0.6 - 2.0	> 2.0
IMPACT FROM FOLIAGE CONTACT				
Sodium	ppm	0 - 70	71 - 210	> 210
Chloride	ppm	0 - 100	101 - 305	> 350
IMPACT ON SOIL STRUCTURE				
Sodium Absorption Ratio Adj.	meq/l	0 - 6.0	6.1 - 9.0	> 9.0
Electrical Conductivity	mmhos/cm	> 0.5	< 0.51	

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