

June 2, 2004

Agrim P/L
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Salt Out™ – SOIL & LEAF TISSUE ANALYSIS

The samples you submitted have been processed and the results are as follows:

Soil Nutrient Analysis

Salt Out™

Green Group

April 2004

Sample Name		17 GREEN LHS	17 GREEN RHS	COMMENT
Texture	Type	Sandy Loam	Sandy Loam	
Colour	Type	Grey	Grey	
pH (water)	pH units	7.6	7.6	same
Electrical Conductivity	dS/m	0.15	0.21	different
Total Soluble Salts	ppm	446	624	different
Phosphorus (Colwell)	ppm	58	48	different
Exchangeable Cations				
Exchangeable Potassium	meq / 100 gm	0.1	0.2	marginal difference
Exchangeable Calcium	meq / 100 gm	1.5	1.9	different
Exchangeable Magnesium	meq / 100 gm	0.2	0.3	marginal difference
Exchangeable Sodium	meq / 100 gm	0.3	0.5	different
Exchangeable Aluminium	meq / 100 gm	0.0	0.0	same
Calcium Magnesium Ratio		7.5	5.9	different
Cation Exchange Capacity	meq / 100 gm	2.2	2.9	different
Cation Exchange %				
Exchangeable Potassium	%	5	7	marginal difference
Exchangeable Calcium	%	70	65	different
Exchangeable Magnesium	%	9	11	marginal difference
Exchangeable Sodium	%	14	16	marginal difference
Exchangeable Aluminium	%	1	1	same
Trace Elements:				
Sulphur	ppm	12	16	marginal difference
Zinc	ppm	1.4	1.6	marginal difference
Copper	ppm	0.1	0.1	same
Manganese	ppm	1.8	2.6	different
Iron	ppm	16	20	marginal difference
Boron	ppm	0.1	0.1	same
Chloride	ppm	140	210	different

Tissue Nutrient Analysis
 Salt Out™
 Green Group
 April 2004

	Salt Out Treatment	No Treatment	Comment	Optimum
Total Nitrogen (%)	4.1	3.7	difference	2.5 – 5
Phosphorous (%)	0.54	0.54	same	0.3 – 0.6
Potassium (%)	2.4	2.3	marginal difference	1.5 – 2.5
Sulphur (%)	0.41	0.44	marginal difference	0.25 – 0.4
Calcium (%)	0.36	0.41	difference	0.2 – 1.0
Magnesium (%)	0.24	0.25	marginal difference	0.2 – 0.5
Sodium (%)	0.32	0.43	difference	0.02 - 0.20
Chloride (%)	0.86	1.2	difference	0.2 - 2.0
Manganese (ppm)	180	170	marginal difference	> 20
Iron (ppm)	1700	2800	difference	200 - 1000
Copper (ppm)	19	21	marginal difference	15-20
Zinc (ppm)	60	76	difference	20-50
Boron (ppm)	13	18	difference	12 - 20

Comments

The treated area shows similar trends to those in the soil.

- The Salt Out™ treatment has significantly higher nitrogen content.
- Phosphorous is the same in both samples.
- Calcium is significantly lower in the treated sample as are sodium and chloride levels. This indicates reduced uptake.
- Iron levels are high in the plant tissue of both samples but lower with the treatment.
- Boron and zinc levels are significantly lower in the treated sample.

Conclusion

The Salt Out™ treatment has significantly reduced salt uptake and that of some of the other elements and also enhanced nitrogen levels.

Yours faithfully

Terry Woodcock
 Sportsturf Consultant

Comments

Soil Analysis

I **assume** the Salt Out™ has been applied to the LHS green sample as this has similar or lower levels of most nutrients when compared to the RHS sample.

The pH is not affected.

Phosphorous is lower in the RHS than the left and is the only nutrient that is different and the reverse in the whole range of factors measured.

The total salts have been significantly reduced and this is reflected also in lower sodium and chloride levels in the treated sample.

In summary the Salt Out™ has reduced salt levels significantly and some other nutrients marginally downward. Phosphorous is higher in the treated area and implies the Salt Out™ has a phosphate component.