

Plant Tissue Analysis

Sample Drop Off:	16 Chilvers Road	Tel:	13(
	Thornleigh NSW 2120	Fax:	13(
Mailing Address:	PO Box 357	Em:	info
	Pennant Hills NSW 1715	Web:	ww

Batch N°: 53283	Sample N°: 1	Date Received: 2	6/6/19	Report Status: F	Final
Client Name:	Deakin University	Project Name: SESL Quote N°	Floating Reef	Bed - Heywood	
Client Contact:	Tim Tutt	Sample Name:	Sample 1		
Client Order N°:		Description:	Plant Tissue		
Address:	PO Box 423 Warrnambool VIC	Test Type:	PT_F		

		P	LANT DE	TAILS			PLANT		LABLE NUTRIENT PROFILE	
Plant type: Turf							N - Total	2.4	NITROGEN - Normal Range: 3.4 - 4.65 %	
Species name: Tall Fescue Rotania name: Festuae arundinasea						NTS.	%		PHOSPHORUS - Normal Range: 0.34 - 0.50 %	
Sampling time:						RIFIE 8	0.313			
Plant p	part:	Clippin	gs			INC	к	2 01	POTASSIUM - Normal Range: 3.0 - 4.0 %	
Growth	n stage:	Mature	plant			CRO	%	2.01		
	SUMM		ND REC	OMMENDATIONS		MA	Ca %	0.489	CALCIUM - Normal Range: 0.4 - 0.45 %	
A catalog	gue of Pl	nragmites ass are s	tissue ana	lysis is not available so	ranges	ENTIA	Mg	0.261	MAGNESIUM - Normal Range: 0.24 - 0.29 %	
For ever	y kilogra wing nutr	m of mate	erial remove	ed, a simple conversion	shows	ESSI	S	0 744	SULPHUR - Normal Range: 0.4 - 0.44 %	
N 24g; P	9 3.13g; k	< 20.1g; (Ca 4.9g; Mg	2.6g; S 7g.			%	0.711		
Trace el	ement re	moval is	shown in m	illigrams per kilogram.			Fe mg/kg	73.6	IRON - Normal Range: 83 - 167 mg/kg	
						ENTS	Mn mg/kg	405	MANGANESE - Normal Range: 54 - 74 mg/kg	
						JTRIE	Zn	13	ZINC - Normal Range: 28 - 64 mg/kg	
						S	mg/kg			
						1 ICR	Cu mg/kg	<1	COPPER - Normal Range: 9 - 15 mg/kg	
					AL N	В	6 99	BORON - Normal Range: 15 - 20 mg/kg		
Ratio	Ideal	Result	Low	-20% Ideal +20%	High	ILN	mg/kg	0.00		
N : P	10:1	7.7	N		Р	ESSI	Mo mg/kg	-	MOLYBDENUM - Normal Range: 0.69 - 1.21 mg/kg	
N : K	1:1	1.2	N		к		CI	0.68	CHLORIDE - Normal Range: 0.20 - 0.30 %	
N : S	15:1	3.38	N		s	77	Na		SODIUM - Normal Range: 0.1 - 0.2 %	
P : Fe	29:1	42.5	Р		Fe		%	0.235		
K:Ca	4:1	4.11	к		Са		Category	Description	D.N.T. or " - " denotes "Did not test."	
K : Mg	8:1	7.7	к		Mg	E	High	Potential phyton Nutrient level is	oxic response. No nutrient addition required. Luxury consumption. more than adequate and luxury consumption may be occurring.	
K : Na	9:1	8.55	к		Na	a The most desirable category. Nutrient additions appropriate for most plants.				
Ca : Mg	2:1	1.87	Ca		Mg	Deficient Growth is likely to be severely depressed and deficiency symptoms present.				
Ca : Zn	45:1	376.15	Ca		Zn					
Ca : B	300:1	710.76	Ca		В	N 1	itrata Ale	O1	ther Elements (mg/kg)	
Fe : Mn	>1:1	0.18	Fe		Mn		NO ₃	Al	Ni Co Se Si I	
Zn : Cu	7:1	13	Zn		Cu		41 D.	N.T. D	.N.T. D.N.T. D.N.T. D.N.T. D.N.T.	

Consultant: Stephenlox

Authorised Signatory: Dole Down Col. Declan McDonald

Date Report Generated 5/07/2019

Plant tissue testing and nutrient ranges are not absolute indicators of adequate nutrition. Nutrient concentration is affected by plant part sampled, nutrient ratios, age of tissue, varietal differences, weather conditions at sampling, dust and pesticide residue on foliage, and other factors affecting plant health (insects, nematodes, diseases, etc).



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	Thornleigh NSW 2120	Fax:	1300 64 46 89
Mailing Address:	PO Box 357	Em:	info@sesl.com.au
	Pennant Hills NSW 1715	Web:	www.sesl.com.au

vw.sesl.com.au Batch N°: 53283 Sample N°: 2 Date Received: 26/6/19 Report Status: Final Client Name: **Deakin University** Floating Reef Bed - Heywood Project Name: SESL Quote N°: Sample Name: Sample 2 Client Contact: Tim Tutt Client Order N°: Description: **Plant Tissue** PO Box 423 Address: Test Type: PT_F Warrnambool VIC

		P	LANT DE	TAILS				PLANT		LABLE NUTRIENT PROFILE
Plant type: Turf Species name: Tall Fescue						TS	N - Total %	3.28	NITROGEN - Normal Range: 3.4 - 4.65 %	
Botanic name: Festuca arundinacea					TRIEN	P %	0.349	PHOSPHORUS - Normal Range: 0.34 - 0.50 %		
Plant p	oart:	Clippin	gs				ONU	ĸ	2.5	POTASSIUM - Normal Range: 3.0 - 4.0 %
Growtr	n stage:	Mature	piant				ACR	70		CALCIUM - Normal Range: 0.4 - 0.45 %
	SUMN	IARY A	ND REC	OMMEND	ATIONS		VL M	Ca %	0.784	
A catalog	gue of Ph her tall gr	nragmites ass are s	s tissue anal hown.	ysis is not a	vailable so ra	anges	SENTIA	Mg %	0.386	MAGNESIUM - Normal Range: 0.24 - 0.29 %
the follow N 32.9g;	wing nutr ; P 3.49g	ient remo ; K 25g; (oval in gram Ca 7.84g; M	s: g 3.86g; S 1	1.9g.	1005	ES	S %	1.19	SULPHUR - Normal Range: 0.4 - 0.44 %
Trace el	ement re	moval is	shown in mi	lligrams per	kilogram.			Fe mg/kg	82.4	IRON - Normal Range: 83 - 167 mg/kg
						ENTS	Mn mg/kg	402	MANGANESE - Normal Range: 54 - 74 mg/kg	
						NUTRI	Zn mg/kg	21.4	ZINC - Normal Range: 28 - 64 mg/kg	
							AICRO	Cu mg/kg	<1	COPPER - Normal Range: 9 - 15 mg/kg
		CRIT	ICAL RA	TIOS (x:1))		IAL N	В	7.35	BORON - Normal Range: 15 - 20 mg/kg
Ratio	Ideal	Result	Low	-20% Idea	ıl +20%	High	ENT	mg/kg		
N : P	10:1	9.4	N			Р	ESS	Mo mg/kg	-	MOLYBDENUM - Normal Range: 0.69 - 1.21 mg/kg
N : K	1:1	1.3	N			к		Cl	0.67	CHLORIDE - Normal Range: 0.20 - 0.30 %
N : S	15:1	2.76	N			s	77	Na		SODIUM - Normal Range: 0.1 - 0.2 %
P : Fe	29:1	42.4	Р			Fe		%	0.241	
K : Ca	4:1	3.19	к			Ca	Ev	Category	Description	D.N.T. or " - " denotes "Did not test."
K : Mg	8:1	6.48	к			Mg		High	Potential phyto Nutrient level is	toxic response. No nutrient addition required. Luxury consumption. s more than adequate and luxury consumption may be occurring.
K : Na	9:1	10.37	к			Na		Normal //	The most desir	rable category. Nutrient additions appropriate for most plants.
Ca : Mg	2:1	2.03	Са			Mg	D	eficient	Potential "hidde Growth is likely	en hunger" or subclinical deficiency. y to be severely depressed and deficiency symptoms present.
Ca : Zn	45:1	366.36	Са			Zn				
Ca : B	300:1	1066.67	Са			В	Ni	itrate Alur	O ninium N	ther Elements (mg/kg) Jickel Cobalt Selenium Silicon Iodine
Fe : Mn	>1:1	0.2	Fe			Mn	N		Al	Ni Co Se Si I
Zn : Cu	7:1	21.4	Zn			Cu	4	10.8 D.	N.T. D	D.N.T. D.N.T. D.N.T. D.N.T. D.N.T

Consultant: Stephenler Stephen Cox

Authorised Signatory: De Downell. Declan McDonald

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Batch N°: 53283	Sample N°: 3	Date Received: 2	6/6/19	Report Status:	Final
Client Name:	Deakin University	Project Name:	Floating Reef Be	ed - Heywood	
		SESL Quote N°	:		
Client Contact:	Tim Tutt	Sample Name:	Sample 3		
Client Order N°:		Description:	Plant Tissue		
Address:	PO Box 423 Warrnambool VIC	Test Type:	PT_F		

		P	LANT DE	TAILS				PLANT		LABLE NUTRIENT PROFILE	
Plant ty	ype:	Turf					G	N - Total	3.03	NITROGEN - Normal Range: 3.4 - 4.65 %	
Specie Botani	s name: c name:	Festuca	scue a <i>arundinac</i> o	ea			ENT	P	0.00	PHOSPHORUS - Normal Range: 0.34 - 0.50 %	
Sampli	ing time:						LTR	%	0.32		
Plant p	oart: histage:	Clippin	gs nlant				SONI	K %	2.26	POTASSIUM - Normal Range: 3.0 - 4.0 %	
	r stuge.	Mature	plain				IACF	Са		CALCIUM - Normal Range: 0.4 - 0.45 %	
	SUMN	IARY A	ND REC	OMMEN	DATIONS		AL N	%	0.764		
A catalog	gue of Ph her tall gra	nragmites ass are s	s tissue anal hown.	ysis is not	available so ra	nges	SENTI	Mg %	0.289	MAGNESIUM - Normal Range: 0.24 - 0.29 %	
the follov N 30.3g;	wing nutri P 3.2g; l	ient remo K 22.6g;	oval in gram Ca 7.64g; N	s: lg 2.89g; S	8 10.8g.	10W5	ES	S %	1.08	SULPHUR - Normal Range: 0.4 - 0.44 %	
Trace el	ement re	moval is	shown in mi	lligrams pe	er kilogram.			Fe mg/kg	97	IRON - Normal Range: 83 - 167 mg/kg	
						ENTS	Mn mg/kg	377	MANGANESE - Normal Range: 54 - 74 mg/kg		
						NUTRIE	Zn mg/kg	24.1	ZINC - Normal Range: 28 - 64 mg/kg		
							licro	Cu mg/kg	<1	COPPER - Normal Range: 9 - 15 mg/kg	
		CRIT			.1)		AL N	В	11 /	BORON - Normal Range: 15 - 20 mg/kg	
Ratio	Ideal	Result	Low	-20% lo	leal +20%	High	ENT	mg/kg	11.4		
N : P	10:1	9.5	N			Ρ	ESSI	Mo mg/kg	-	MOLYBDENUM - Normal Range: 0.69 - 1.21 mg/kg	
N : K	1:1	1.3	N			к		CI	0.86	CHLORIDE - Normal Range: 0.20 - 0.30 %	
N : S	15:1	2.81	N			s	77	Na		SODIUM - Normal Range: 0.1 - 0.2 %	
P : Fe	29:1	33	Р			Fe		1 1 0	0.264		
K : Ca	4:1	2.96	к			Са	E	Category	Description	D.N.T. or " - " denotes "Did not test."	
K : Mg	8:1	7.82	к		1	Mg		High	Potential phytot Nutrient level is	oxic response. No nutrient addition required. Luxury consumption. more than adequate and luxury consumption may be occurring.	
K : Na	9:1	8.56	к			Na	a The most desirable category. Nutrient additions appropriate for most plants.				
Ca : Mg	2:1	2.64	Са			Mg	Deficient Growth is likely to be severely depressed and deficiency symptoms present.				
Ca : Zn	45:1	317.01	Са			Zn			-		
Ca : B	300:1	670.18	Са		nuun nuun	В	N	itrate Alur	Ot minium N	ner Elements (mg/kg)	
Fe : Mn	>1:1	0.26	Fe			Mn		NO ₃	Al	Ni Co Se Si I	
Zn : Cu	7:1	24.1	Zn			Cu	2	29.6 D.	.N.T. D.	N.T. D.N.T. D.N.T. D.N.T. D.N.T.	

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