Earth Life Pty. Ltd.
RESEARCH REPORT

<u>Effect of Earthlife Minerals Plus on Sugar Cane</u>

Trial conducted by D.E. & J.A. Gleeson, Agricultural Consultant

AIM:	To establish the effect of Earthlife Minerals Plus on the yield of "Plant" and "Ratoon" cane.
PROCEDURE:	Treat soil prior to planting "Plant " cane and retreat each "ratoon".
TREATMENTS:	Randomised Blocks 5 treatments x 6 replicates. Treatment 1 ELM PLUS 900 kg/ha Treatment 2 ELM PLUS 700 kg/ha Treatment 3 ELM PLUS 600 kg/ha Treatment 4 ELM PLUS 300 kg/ha Treatment 5 Control

	RAW RESULTS					
ASSESSMENT:	TREATMENT - 1					
	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6
	7.68	7.39	7.53	7.14	6.87	6.81
ASSESSMENT:	TREATMENT - 2					
	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6
	7.33	6.96	6.8	7.49	8.25	7.66
ASSESSMENT:	TREATMENT - 3					
	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
	7.47	7.94	7.71	6.55	6.27	6.31

ASSESSMENT: continued	TREATMENT - 4					
	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6
	6.8	6.44	6.51	6.5	6,37	6.49

ASSESSMENT:	TREATMENT - 5					
	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6
	6.31	6.26	6.65	6.71	7.73	6.87

ANALYSIS:

Block	Treat 1	Treat 2	Treat 3	Treat 4	Treat 5	Total
1	7.68	7.33	7.47	6.8	6.31	35.59
2	7.39	6.96	7.94	6.44	6.26	34.99
3	7.53	6.8	7.71	6.51	6.65	35.2
4	7.14	7.49	6.55	6.5	6.71	34.39
5	6.87	8.25	6.27	6.37	7.73	35.49
6	6.01	7.66	6.31	6.49	6.87	33.34
Total	**42.62**	**44.49**	**42.25**	**39.11**	**40.53**	**209**
SS		**304.59**	**331.24**	**300.31**	**255.34**	**1466.67**

$$CF \ = \ \frac{[209]2}{30} \ = \ 1456.03$$

$$Block \ SS \ = \ \frac{7283.76 \ - \ CF}{5} \ = \ 0.72$$

$$Treat. \ SS \ = \ \frac{8753.15 \ - \ CF}{6} \ = \ 4.5$$

$$Total \ SS \ = \ 1466.67 \ - \ 1456.03 \ = \ 10.64$$

Analysis of Variance

Source	D.F.	SS	MS	F
Block	5	0.72		
Treatment	4	4.5	1.12	sig
Error	20	5.42	0.271	
Total	29	10.64		

ANALYSIS **Continued**	S.E single yield $\quad\quad\quad \sqrt{0.271} \quad\quad = \quad\quad 0.52$ CV $\quad \dfrac{0.52 \ \times \ 30 \ 100}{209} \quad = \quad \dfrac{1560}{209} \ = \quad 7.46\%$ S.E. of single treatment $\ = \ \sqrt{6} \times 0.52 \quad = \quad 1.76$ LSD $\quad = \quad\quad \sqrt{2} \times 6 \times 0.2(20 \ \text{D.F.}) = \quad 1.8 \times t$ $\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad = \quad 1.8 \times \ 2.131 \ \ 5\%$ $\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad 2.947 \ \ 1\%$ $\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad = \quad 3.84 \ @ \ 5\%$ $\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad 5.3 \ @ \ 1\%$ RESULTS $\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad$ T2 $\quad$ vs $\quad$ T4** S.E. $\quad \pm \quad\quad$ 1.76 x conversion factor $\quad\quad\quad$ T2 $\quad$ vs $\quad\quad$ T4,T5* L.S.D.'s $\quad\quad$ 3.84 x conversion factor @ 5% $\quad\quad$ T2 $\quad$ vs $\quad$ T1,T3 NS $\quad\quad\quad\quad\quad\quad$ 5.3 x conversion factor @ 1% $\quad\quad\quad$ T1 $\quad$ vs $\quad\quad$ T4 $\ $ NS ** Significant @ 1% $\quad\quad\quad\quad\quad\quad$ * Significant @ 5%
CONCLUSIONS:	1. 700 kg/ha of Earthlife Minerals Plus significantly improves yield in comparison to control or 300 kg/ha Earthlife Minerals Plus. 2. There is no significant difference between 600 kg/ha of Earthlife Minerals Plus and 700 kg/ha of Earthlife Minerals Plus. 3. 300 kg/ha of Earthlife Minerals Plus was not significantly different to control. 4. Trial to continue on ratoon cane.