

## APPENDICES

**Appendix A** The colony counts of bacteria and fungi in each petri dish and weather parameter in the rainy season

Grid	site	Bacterial counts*	Fungal counts*	Dry-T (°C)	Wet-T (°C)	Relative Humidity
1	1	10	14	30	26	68%
1	2	12	11	31	27	68%
1	3	5	12	31	27	68%
2	4	23	32	27	24	74%
2	5	103	9	29	27	83%
2	6	13	22	31	28	75%
3	7	36	28	27	26	91%
3	8	44	3	29	27	83%
3	9	29	2	28	27	91%
4	10	22	16	27	27	100%
4	11	50	10	29	27	83%
4	12	4	30	25	25	100%
5	13	43	8	29	25	67%
5	14	117	12	31	26	62%
5	15	72	12	31	26	62%
6	16	4	18	33	29	69%
6	17	4	4	31	26	62%
6	18	5	17	31	26	62%
7	19	79	18	29	27	83%
7	20	55	20	27	26	91%
7	21	4	47	30	26	68%
8	22	270	18	29	27	83%
8	23	3	5	31	27	68%
8	24	37	16	29	27	83%
9	25	71	8	30	25	61%
9	26	103	9	30	24	55%
9	27	54	2	31	25	56%
10	28	10	6	31	25	56%
10	29	59	7	30	24	55%
10	30	76	5	33	25	56%
11	31	115	15	29	24	60%
11	32	54	14	30	24	55%
11	33	2	4	30	25	61%
12	34	77	6	29	25	54%
12	35	47	3	30	24	55%
12	36	15	9	30	24	55%

\* Colony counts in each petri dish ( 10 minutes for sampling)

**Appendix B** The colony counts of bacteria and fungi in each petri dish and weather parameter in the cool season

Gri d	Site	Bacteria counts*	Fungi count*	Dry-T (°C)	Wet-T (°C)	Relative Humidity
1	2	84	65	20	18	70%
1	2	50	53	20	18	70%
1	2	74	65	20	18	70%
2	5	65	84	20.5	18	70%
2	5	54	63	20.5	18	70%
2	5	67	88	20.5	18	70%
3	9	33	71	21.5	19	71%
3	9	38	77	21.5	19	71%
3	9	50	58	21.5	19	71%
4	10	44	133	20	17.5	70%
4	10	32	112	20	17.5	70%
4	10	63	55	20	17.5	70%
5	13	78	58	19	17	79%
5	13	34	51	19	17	79%
5	13	48	52	19	17	79%
6	18	39	71	19	17	79%
6	18	47	99	19	17	79%
6	18	34	63	19	17	79%
7	21	85	70	20	17.5	70%
7	21	47	63	20	17.5	70%
7	21	67	72	20	17.5	70%
8	22	60	72	19	17	79%
8	22	49	80	19	17	79%
8	22	42	70	19	17	79%
9	26	76	63	20.5	18	79%
9	26	46	62	20.5	18	79%
9	26	51	60	20.5	18	79%
10	28	67	70	16	15.5	88%
10	28	41	57	16	15.5	88%
10	28	78	64	16	15.5	88%
11	32	36	55	15	16	100%
11	32	123	106	15	16	100%
11	32	55	81	15	16	100%
12	35	103	53	15	16	100%
12	35	100	65	15	16	100%
12	35	68	77	15	16	100%

\* Colony counts in each petri dish ( 30 seconds for sampling)

Appendix C The ANOVA results for the comparison of difference in the bacterial density among 12 grids in the rainy season

SPSS for MS WINDOWS Release 6.0 - - - O N E W A Y Analysis of Variance - - -

Variable CFU of bacteria By Variable GRID

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
1)Between Groups	11	266.2364	24.2033	.8808	.5700
Linear Term	1	48.7056	48.7056	1.7725	.1956
Deviation from Linear	10	217.5308	21.7531	.7917	.6372
2)Within Groups	24	659.4733	27.4781		
Total	35	925.7097			

  

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	3	0.9000	0.3606	0.2082	0.0043 ~ 1.7957
Grp 2	3	4.6333	4.9329	2.8480	0 ~ 14.8874
Grp 3	3	3.6333	0.7506	0.4333	1.7688 ~ 5.4978
Grp 4	3	2.5333	2.3180	1.3383	0 ~ 8.2917
Grp 5	3	7.7333	3.7287	2.1528	0 ~ 16.9961
Grp 6	3	0.4333	0.0577	0.0333	0.2899 ~ 0.5768
Grp 7	3	4.6000	3.8301	2.2113	0 ~ 14.1147
Grp 8	3	10.3333	14.5335	8.3909	0 ~ 46.4370
Grp 9	3	7.6000	2.4880	1.4364	1.4195 ~ 13.7805
Grp10	3	4.8333	3.4269	1.9785	0 ~ 13.3462
Grp11	3	5.7000	5.6560	3.2655	0 ~ 19.7504
Grp12	3	4.6333	3.1005	1.7901	0 ~ 12.3356
Total	36	4.7972	5.1428	0.8571	3.0571 ~ 6.5373

**Appendix D** The ANOVA results for the comparison of difference in the fungal density among 12 grids in the rainy season

SPSS for MS WINDOWS Release 6.0 - - - O N E W A Y Analysis of Variance - - -

Variable CFUs of fungi By Variable GRID

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
1) Between Groups	11	14.6222	1.3293	1.7790	.1152
Linear Term	1	2.8718	2.8718	3.8433	.0617
Deviation from Linear	10	11.7504	1.1750	1.5725	.1751
2) Within Groups	24	17.9333	.7472		
Total	35	32.5556			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	3	1.2333	0.1528	0.0882	0.8539 ~ 1.6128
Grp 2	3	2.1000	1.1533	0.6658	0 ~ 4.9649
Grp 3	3	1.1000	1.4731	0.8505	0 ~ 4.7594
Grp 4	3	1.8667	1.0263	0.5925	0 ~ 4.4162
Grp 5	3	1.0667	0.2309	0.1333	0.4930 ~ 1.6404
Grp 6	3	1.3000	0.7810	0.4509	0 ~ 3.2402
Grp 7	3	2.8333	1.6197	0.9351	0 ~ 6.8569
Grp 8	3	1.3000	0.7000	0.4041	0 ~ 3.0389
Grp 9	3	0.6333	0.3786	0.2186	0 ~ 1.5738
Grp10	3	0.6000	0.1000	0.0577	0.3516 ~ 0.8484
Grp11	3	1.1000	0.6083	0.3512	0 ~ 2.6111
Grp12	3	0.6000	0.3000	0.1732	0 ~ 1.3452
Total	36	1.3111	0.9644	0.1607	0.9848 ~ 1.6374

**Appendix E The ANOVA results for the comparison of difference in the bacterial concentration among 12 grids in the cool season**

SPSS for MS WINDOWS Release 6.0 - - - O N E W A Y Analysis of Variance - - -

Variable CFUs of bacteria By Variable GRID

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
1)Between Groups	11	9524266.667	865842.4242	1.4002	0.2356
Linear Term	1	1949572.028	1949572.028	3.1528	0.0885
Deviation from Linear	10	7574694.639	757469.4639	1.2250	0.3250
2)Within Groups	24	14840533.33	618355.5556		
Total	35	24364800.00			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	3	2773.3333	698.9516	403.5399	1037.0222 ~ 4509.6445
Grp 2	3	2480.0000	280.0000	161.6581	1784.4338 ~ 3175.5662
Grp 3	3	1613.3333	349.4758	201.7699	745.1778 ~ 2481.4889
Grp 4	3	1853.3333	625.2466	360.9863	300.1175 ~ 3406.5491
Grp 5	3	2133.3333	899.1848	519.1446	100.3902 ~ 4367.0569
Grp 6	3	1600.0000	262.2975	151.4376	948.4096 ~ 2251.5904
Grp 7	3	2653.3333	760.3508	438.9887	764.4964 ~ 4542.1702
Grp 8	3	2013.3333	362.9509	209.5498	1111.7035 ~ 2914.9632
Grp 9	3	2306.6667	642.9101	371.1843	709.5720 ~ 3903.7614
Grp10	3	2480.0000	760.0000	438.7862	592.0345 ~ 4367.9655
Grp11	3	2853.3333	1829.6812	1056.366	-1691.8968 ~ 7398.5635
Grp12	3	3400.0000	643.7391	371.6629	1800.8459 ~ 4999.1541
Total	36	2346.6667	834.3483	139.0581	2064.3638 ~ 2628.9695

**Appendix F The ANOVA results for the comparison of difference in the fungal concentration among 12 grids in the cool season**

SPSS for MS WINDOWS Release 6.0 - - - O N E W A Y Analysis of Variance - - -

Variable CFU of fungi By Variable GRID

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
1)Between Groups	11	7831288.889	711935.3535	1.6620	0.1440
Linear Term	1	101538.4615	101538.4615	0.2370	0.6308
Deviation from Linear	10	7729750.427	772975.0427	1.8045	0.1144
2)Within Groups	24	10280533.33	428355.5556		
Total	35	18111822.22			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	3	2440.0000	277.1281	160.0000	1751.5680 ~ 3128.4320
Grp 2	3	3133.3333	537.1530	310.1254	1798.9566 ~ 4467.7100
Grp 3	3	2746.6667	388.5014	224.3014	1781.5651 ~ 3711.7683
Grp 4	3	4000.0000	1614.4349	932.0944	-10.5228 ~ 8010.5228
Grp 5	3	2146.6667	151.4376	87.4325	1770.4708 ~ 2522.8626
Grp 6	3	3106.6667	756.1305	436.5521	1228.3137 ~ 4985.0197
Grp 7	3	2733.3333	189.0326	109.1380	2263.7451 ~ 3202.9216
Grp 8	3	2960.0000	211.6601	122.2020	2434.2014 ~ 3485.7986
Grp 9	3	2466.6667	61.1010	35.2767	2314.8817 ~ 2618.4517
Grp10	3	2546.6667	260.2563	150.2590	1900.1471 ~ 3193.1862
Grp11	3	3226.6667	1020.0654	588.9350	692.6559 ~ 5760.6774
Grp12	3	2600.0000	480.0000	277.1281	1407.6008 ~ 3792.3992
Total	36	2842.2222	719.3613	119.8935	2598.8254 ~ 3085.6191

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