

Table 12 Effect of soya bean (full fat) and phytase on water quality of juvenile *Clarias gariepinus*

Sources of variation, P value	Dissolved Oxygen (mg/l)	pH	Temperature (°C)	Ammonia (mg/l)	Nitrate (mg/l)
Phytase	0.000	0.162	0.000	0.000	0.000
Soya bean	0.000	0.007	0.270	0.000	0.000
Phytase	0.000	0.159	0.002	0.000	0.000
* Soya bean					
Pooled SE	0.011	0.004	0.017	0.002	0.014
Tukey HSD (means, P values)	-0.62*, 0.000	0.002, 0.999	-0.25*, 0.001	4.01*, 0.000	4.46*, 0.000
Phytase					
P0 vs P1					
P0 vs P2	-0.65*, 0.000	0.023, 0.362	-0.46*, 0.000	2.15*, 0.000	3.91*, 0.000
P0 vs P3	-0.55*, 0.000	-0.002, 1.000	-0.95*, 0.000	3.05*, 0.000	12.22*, 0.00
P0 vs P4	-0.45*, 0.000	0.023, 0.362	-0.71*, 0.000	1.19*, 0.000	-5.59*, 0.000
P1 vs P2	-0.03, 0.953	0.02, 0.537	-0.21*, 0.008	-1.86*, 0.000	-0.56*, 0.000
P1 vs P3	0.08, 0.248	-0.01, 0.995	-0.70*, 0.000	-0.96*, 0.000	7.76*, 0.000
P1 vs P4	0.18*, 0.001	0.02, 0.537	-0.46*, 0.000	-2.82*, 0.000	-10.05*, 0.000
P2 vs P3	0.10, 0.068	-0.03, 0.323	-0.49*, 0.000	0.90*, 0.000	8.31*, 0.0000
P2 vs P4	0.20*, 0.000	0.00, 1.000	-0.25*, 0.002	-0.97*, 0.000	-9.50*, 0.000
P3 vs P4	0.10, 0.068	0.03, 0.323	0.24*, 0.003	-1.87*, 0.000	-17.81*, 0.000
Soya bean	-1.52*, 0.000	0.016, 0.923	-0.44*, 0.000	6.41*, 0.000	23.36*, 0.000
S0 vs S1					
S0 vs S2	-1.30*, 0.000	0.022, 0.801	-0.41*, 0.001	4.71*, 0.000	10.45*, 0.000
S0 vs S3	-1.16*, 0.000	0.036, 0.39	-0.48*, 0.000	6.56*, 0.000	23.88*, 0.000
S0 vs S4	-1.10*, 0.000	-0.012, 0.973	-0.52*, 0.00	6.76*, 0.000	31.32*, 0.000
S1 vs S2	0.22*, 0.000	0.006, 0.984	0.03, 0.973	-1.70*, 0.000	-12.91*, 0.000
S1 vs S3	0.36*, 0.000	0.02, 0.430	-0.04, 0.927	0.15*, 0.000	0.52*, 0.000
S1 vs S4	0.42*, 0.000	-0.03, 0.143	-0.08, 0.509	0.35*, 0.000	7.96*, 0.000
S2 vs S3	0.14*, 0.002	0.01, 0.739	-0.07, 0.630	1.85*, 0.000	13.43*, 0.000
S2 vs S4	0.20, 0.000	-0.03, 0.051	-0.11, 0.214	2.05, 0.000	20.87, 0.000
S3 vs S4	0.06, 0.349	-0.05*, 0.003	-0.04, 0.927	0.20, 0.000	7.44, 0.000

Note: *The mean differences are significant at $P < 0.05$