

Elements	Forest	Jungle rubber	Rubber	Oil palm fertilized area	Oil palm frond-stacked area
Loam Acrisol soil					
Ammonium (g NH ₄ ⁺ -N m ⁻² yr ⁻¹)	0.3 (0.0) ^{ab A †}	0.5 (0.3) ^a	0.2 (0.01) ^{bc}	0.3 (0.0) ^{ab}	0.2 (0.0) ^c
Nitrate (g NO ₃ ⁻ -N m ⁻² yr ⁻¹)	0.1 (0.1) ^{ab}	0.1 (0.1) ^{ab A}	0.0 (0.0) ^b	0.6 (0.3) ^a	0.1 (0.0) ^{ab}
Dissolved organic N (g N m ⁻² yr ⁻¹)	0.2 (0.0) ^{A †}	0.1 (0.0)	0.1 (0.0)	0.2 (0.1)	0.1 (0.0)
Total dissolved N (g N m ⁻² yr ⁻¹)	0.6 (0.1) ^{ab † A †}	0.8 (0.3) ^{ab †}	0.4 (0.0) ^{b †}	1.1 (0.3) ^{a †}	0.4 (0.1) ^{b †}
Dissolved organic C (g C m ⁻² yr ⁻¹)	4.2 (0.5) ^{bc}	6.2 (1.5) ^{ab}	3.9 (0.2) ^c	7.3 (0.2) ^a	4.2 (0.4) ^{bc}
Sodium (g Na m ⁻² yr ⁻¹)	3.8 (0.4) ^{b A}	3.7 (0.8) ^b	3.1 (0.3) ^b	13.1 (7.6) ^a	3.1 (0.5) ^b
Potassium (g K m ⁻² yr ⁻¹)	0.4 (0.1)	0.4 (0.2)	0.4 (0.1)	0.7 (0.2)	0.4 (0.1)
Calcium (g Ca m ⁻² yr ⁻¹)	1.0 (0.1) ^{b A}	1.2 (0.3) ^b	0.9 (0.1) ^b	4.6 (1.3) ^a	1.0 (0.2) ^b
Magnesium (g Mg m ⁻² yr ⁻¹)	0.4 (0.0) ^{b A}	0.4 (0.1) ^b	0.4 (0.1) ^b	0.9 (0.2) ^a	0.3 (0.1) ^b
Total aluminum (g Al m ⁻² yr ⁻¹)	0.4 (0.1) ^{b A}	0.3 (0.1) ^b	0.4 (0.0) ^b	2.3 (1.3) ^a	0.2 (0.0) ^b
Total iron (g Fe m ⁻² yr ⁻¹)	0.20 (0.10)	0.02 (0.01)	0.03 (0.01)	0.04 (0.00)	0.10 (0.10)
Total manganese (g Mn m ⁻² yr ⁻¹)	0.02 (0.01)	0.03 (0.02)	0.01 (0.01)	0.03 (0.00)	0.01 (0.00)
Total phosphorus (g P m ⁻² yr ⁻¹)	0.01 (0.00) ^{a †}	0.01 (0.00) ^{abc †}	0.00 (0.00) ^{c †}	0.01 (0.00) ^{ab †}	0.01 (0.00) ^{bc †}
Total sulfur (g S m ⁻² yr ⁻¹)	0.20 (0.00) ^{ab}	0.20 (0.10) ^{ab}	0.13 (0.01) ^b	0.24 (0.0) ^a	0.15 (0.0) ^{ab}
Total silica (g Si m ⁻² yr ⁻¹)	0.7 (0.2) ^{A †}	0.6 (0.3)	0.4 (0.1)	0.4 (0.1)	0.3 (0.1)
Chloride (g Cl m ⁻² yr ⁻¹)	10.5 (0.9) ^{b A}	11.5 (2.4) ^b	9.1 (0.6) ^b	38.0 (6.7) ^a	7.8 (1.2) ^b
Clay Acrisol soil					
Ammonium (g NH ₄ ⁺ -N m ⁻² yr ⁻¹)	0.2 (0.0) ^{B †}	0.2 (0.0)	0.2 (0.0)	0.2 (0.0)	0.2 (0.0)
Nitrate (g NO ₃ ⁻ -N m ⁻² yr ⁻¹)	0.1 (0.1)	0.0 (0.0) ^B	0.3 (0.2)	1.1 (1.1)	0.0 (0.0)
Dissolved organic N (g N m ⁻² yr ⁻¹)	0.1 (0.0) ^{B †}	0.1 (0.0)	0.1 (0.0)	0.1 (0.0)	0.1 (0.0)
Total dissolved N (g N m ⁻² yr ⁻¹)	0.3 (0.1) ^{B †}	0.3 (0.0)	0.6 (0.2)	1.4 (1.1)	0.3 (0.0)
Dissolved organic C (g C m ⁻² yr ⁻¹)	3.4 (0.4) ^c	5.4 (0.7) ^{ab}	3.6 (0.2) ^{bc}	6.2 (1.4) ^a	5.6 (1.0) ^{ab}
Sodium (g Na m ⁻² yr ⁻¹)	2.5 (0.4) ^{b B}	3.2 (0.3) ^b	2.5 (0.1) ^b	6.3 (1.8) ^a	3.3 (0.6) ^b
Potassium (g K m ⁻² yr ⁻¹)	0.3 (0.0)	0.3 (0.1)	0.3 (0.1)	0.5 (0.1)	0.2 (0.1)
Calcium (g Ca m ⁻² yr ⁻¹)	0.7 (0.1) ^B	0.9 (0.0)	0.8 (0.1)	1.0 (0.2)	0.7 (0.1)
Magnesium (g Mg m ⁻² yr ⁻¹)	0.2 (0.0) ^{b B}	0.3 (0.0) ^b	0.3 (0.0) ^b	0.6 (0.1) ^a	0.2 (0.1) ^b
Total aluminum (g Al m ⁻² yr ⁻¹)	0.2 (0.0) ^B	0.2 (0.1)	0.3 (0.1)	0.3 (0.1)	0.1 (0.0)
Total iron (g Fe m ⁻² yr ⁻¹)	0.02 (0.00)	0.03 (0.00)	0.02 (0.00)	0.01 (0.0)	0.06 (0.05)
Total manganese (g Mn m ⁻² yr ⁻¹)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.09 (0.07)	0.02 (0.00)
Total phosphorus (g P m ⁻² yr ⁻¹)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.02 (0.01)
Total sulfur (g S m ⁻² yr ⁻¹)	0.16 (0.0) ^{ab}	0.15 (0.0) ^{ab}	0.14 (0.0) ^b	0.17 (0.0) ^a	0.17 (0.0) ^{ab}
Total silica (g Si m ⁻² yr ⁻¹)	0.3 (0.1) ^{b B †}	0.7 (0.1) ^{ab}	0.3 (0.0) ^b	1.3 (0.6) ^a	0.8 (0.3) ^{ab}
Chloride (g Cl m ⁻² yr ⁻¹)	6.0 (0.3) ^B	8.2 (1.3)	6.9 (1.0)	9.8 (3.0)	5.6 (0.6)