

Table S1. Effects of N, P, K, Ca, and Mg according to the site-specific nutrient management on nitrogen content in ratoon pineapple plants.

Treatment	Nitrogen content (%)							
	Crown	Pulp	Core	Shell	Sucker	Peduncle	Butt	Leaf
NF	2.16 ^d	1.02 ^f	0.581 ^e	1.06 ^d	1.04 ^d	0.739 ^c	0.858 ^d	1.48 ^b
NPKCaMg	2.69 ^a	1.88 ^a	1.30 ^a	1.43 ^a	1.63 ^{ab}	1.07 ^a	1.35 ^b	1.73 ^a
PKCaMg	2.17 ^d	1.16 ^e	0.669 ^{de}	1.12 ^{cd}	1.10 ^d	0.771 ^{bc}	1.07 ^c	1.58 ^{ab}
NKCaMg	2.51 ^{ab}	1.27 ^{de}	0.703 ^d	1.25 ^{bc}	1.35 ^c	0.933 ^{ab}	1.32 ^b	1.74 ^a
NPCaMg	2.62 ^a	1.43 ^{bc}	0.797 ^{bc}	1.25 ^{bc}	1.74 ^{ab}	1.05 ^a	1.63 ^a	1.66 ^{ab}
NPKMg	2.21 ^{cd}	1.45 ^b	0.840 ^b	1.27 ^{bc}	1.77 ^a	1.04 ^a	1.20 ^{bc}	1.77 ^a
NPKCa	2.66 ^a	1.41 ^{bc}	0.700 ^{cd}	1.14 ^{cd}	1.60 ^b	0.902 ^{abc}	1.57 ^a	1.50 ^b
LFF	2.39 ^{bc}	1.31 ^{cd}	0.793 ^{bc}	1.29 ^b	1.60 ^b	0.762 ^c	1.25 ^b	1.81 ^a
Significance level	*	*	*	*	*	*	*	*
CV (%)	5.09	6.21	9.29	7.55	6.46	11.7	8.20	8.79

Note: In the same column, numbers with the same superscripted letters are insignificantly different according to Duncan test. *: different at significance level of 5% ($p < 0.05$). NF: no fertilizer; NPKCaMg: fully-fertilized; PKCaMg: N-omitted; NKCaMg: P-omitted; NPCaMg: K-omitted; NPKMg: Ca-omitted; NPKCa: Mg-omitted; LFF: local farmers' fertilization.

Table S2. Effects of N, P, K, Ca, and Mg according to the site-specific nutrient management on phosphorus content in ratoon pineapple plants.

Treatment	Phosphorus content (%)							
	Crown	Pulp	Core	Shell	Sucker	Peduncle	Butt	Leaf
NF	0.182 ^c	0.103 ^{cd}	0.066	0.133 ^e	0.139 ^d	0.073 ^b	0.186 ^e	0.175 ^c
NPKCaMg	0.267 ^a	0.136 ^a	0.072	0.214 ^a	0.198 ^b	0.076 ^{ab}	0.246 ^{ab}	0.251 ^a
PKCaMg	0.235 ^{ab}	0.109 ^c	0.074	0.143 ^{de}	0.133 ^d	0.078 ^{ab}	0.229 ^{bc}	0.252 ^a
NKCaMg	0.138 ^c	0.107 ^c	0.075	0.136 ^e	0.141 ^d	0.070 ^b	0.221 ^{cd}	0.183 ^c
NPCaMg	0.209 ^{bc}	0.113 ^{bc}	0.064	0.148 ^{cde}	0.235 ^a	0.089 ^a	0.264 ^a	0.257 ^a
NPKMg	0.227 ^{abc}	0.137 ^a	0.063	0.181 ^b	0.207 ^b	0.066 ^b	0.213 ^{cd}	0.255 ^a
NPKCa	0.236 ^{ab}	0.132 ^{ab}	0.067	0.160 ^c	0.174 ^c	0.065 ^b	0.253 ^a	0.226 ^{ab}
LFF	0.229 ^{abc}	0.085 ^d	0.060	0.156 ^{cd}	0.155 ^{cd}	0.069 ^b	0.203 ^{de}	0.203 ^{bc}
Significance level	*	*	ns	*	*	*	*	*
CV (%)	13.1	12.0	14.5	6.48	9.13	11.7	6.05	8.41

Note: In the same column, numbers with the same superscripted letters are insignificantly different according to Duncan test. *: different at significance level of 5% ($p < 0.05$). NF: no fertilizer; NPKCaMg: fully-fertilized; PKCaMg: N-omitted; NKCaMg: P-omitted; NPCaMg: K-omitted; NPKMg: Ca-omitted; NPKCa: Mg-omitted; LFF: local farmers' fertilization.

Table S3. Effects of N, P, K, Ca, and Mg according to the site-specific nutrient management on potassium content in ratoon pineapple plants.

Treatment	Potassium content (%)							
	Crown	Pulp	Core	Shell	Sucker	Peduncle	Butt	Leaf
NF	0.715 ^c	0.098 ^e	0.168 ^d	0.288 ^c	0.337 ^d	0.164 ^d	0.900 ^d	1.24 ^d
NPKCaMg	1.01 ^b	0.359 ^b	0.282 ^a	0.551 ^a	0.515 ^b	1.08 ^a	2.05 ^b	3.21 ^a
PKCaMg	1.22 ^a	0.302 ^c	0.155 ^d	0.511 ^a	0.441 ^{bc}	1.21 ^a	2.31 ^a	2.81 ^{ab}
NKCaMg	1.04 ^b	0.292 ^c	0.231 ^{bc}	0.309 ^{bc}	0.508 ^b	1.08 ^a	2.42 ^a	1.74 ^c
NPCaMg	0.710 ^c	0.159 ^d	0.288 ^a	0.286 ^c	0.360 ^{cd}	0.234 ^{cd}	0.987 ^d	1.22 ^d
NPKMg	1.02 ^b	0.422 ^a	0.188 ^{cd}	0.333 ^{bc}	0.617 ^a	0.768 ^b	1.54 ^c	2.90 ^{ab}
NPKCa	1.18 ^a	0.430 ^a	0.240 ^{ab}	0.351 ^b	0.648 ^a	0.914 ^b	2.04 ^b	2.99 ^a
LFF	0.893 ^b	0.326 ^{bc}	0.202 ^{abc}	0.306 ^{bc}	0.508 ^c	0.364 ^c	0.980 ^d	2.48 ^b
Significance level	*	*	*	*	*	*	*	*
CV (%)	9.53	8.07	14.9	8.05	11.2	14.9	7.33	12.7

Note: In the same column, numbers with the same superscripted letters are insignificantly different according to Duncan test. *: different at significance level of 5% ($p < 0.05$). NF: no fertilizer; NPKCaMg: fully-fertilized; PKCaMg: N-omitted; NKCaMg: P-omitted; NPCaMg: K-omitted; NPKMg: Ca-omitted; NPKCa: Mg-omitted; LFF: local farmers' fertilization.

Table S4. Effects of N, P, K, Ca, and Mg according to the site-specific nutrient management on calcium content in ratoon pineapple plants.

Treatment	Calcium content (%)							
	Crown	Pulp	Core	Shell	Sucker	Peduncle	Butt	Leaf
NF	0.125 ^{bc}	0.031 ^{bc}	0.036 ^{bc}	0.035 ^c	0.217 ^f	0.091 ^e	0.112 ^f	0.105 ^d
NPKCaMg	0.176 ^a	0.047 ^a	0.053 ^a	0.068 ^a	0.314 ^{ab}	0.157 ^{ab}	0.255 ^b	0.160 ^a
PKCaMg	0.137 ^b	0.040 ^{ab}	0.056 ^a	0.036 ^c	0.272 ^{cd}	0.164 ^a	0.213 ^c	0.158 ^a
NKCaMg	0.195 ^a	0.039 ^{ab}	0.042 ^b	0.049 ^b	0.253 ^{de}	0.142 ^{abc}	0.140 ^e	0.117 ^{cd}
NPCaMg	0.183 ^a	0.038 ^{abc}	0.042 ^b	0.047 ^b	0.305 ^{bc}	0.120 ^{cd}	0.300 ^a	0.152 ^a
NPKMg	0.111 ^c	0.029 ^c	0.032 ^c	0.027 ^d	0.229 ^{ef}	0.107 ^{de}	0.119 ^f	0.104 ^d
NPKCa	0.173 ^a	0.042 ^a	0.059 ^a	0.051 ^b	0.346 ^a	0.138 ^{bc}	0.264 ^b	0.142 ^{ab}
LFF	0.145 ^b	0.031 ^{bc}	0.039 ^{bc}	0.047 ^b	0.349 ^a	0.132 ^c	0.168 ^d	0.131 ^{bc}
Significance level	*	*	*	*	*	*	*	*
CV (%)	9.55	16.4	12.7	7.73	8.26	11.4	5.14	9.53

Note: In the same column, numbers with the same superscripted letters are insignificantly different according to Duncan test. *: different at significance level of 5% ($p < 0.05$). NF: no fertilizer; NPKCaMg: fully-fertilized; PKCaMg: N-omitted; NKCaMg: P-omitted; NPCaMg: K-omitted; NPKMg: Ca-omitted; NPKCa: Mg-omitted; LFF: local farmers' fertilization.

Table S5. Effects of N, P, K, Ca, and Mg according to the site-specific nutrient management on magnesium content in ratoon pineapple plants.

Treatment	Magnesium content (%)							
	Crown	Pulp	Core	Shell	Sucker	Peduncle	Butt	Leaf
NF	0.920 ^c	0.040 ^e	0.039	0.030	0.039 ^c	0.033 ^c	0.258 ^c	0.074 ^c
NPKCaMg	1.16 ^{ab}	0.067 ^a	0.035	0.038	0.061 ^a	0.061 ^a	0.419 ^a	0.101 ^a
PKCaMg	1.02 ^{bc}	0.058 ^{bc}	0.039	0.031	0.055 ^a	0.039 ^{bc}	0.349 ^b	0.097 ^a
NKCaMg	1.08 ^{abc}	0.065 ^{ab}	0.042	0.034	0.053 ^{ab}	0.043 ^{bc}	0.342 ^b	0.087 ^b
NPCaMg	1.28 ^a	0.069 ^a	0.045	0.035	0.066 ^a	0.069 ^a	0.386 ^{ab}	0.103 ^a
NPKMg	1.16 ^{ab}	0.067 ^a	0.034	0.031	0.061 ^a	0.054 ^a	0.372 ^{ab}	0.096 ^a
NPKCa	0.895 ^c	0.047 ^{de}	0.035	0.032	0.059 ^a	0.038 ^{bc}	0.256 ^c	0.057 ^d
LFF	0.868 ^c	0.054 ^{cd}	0.039	0.032	0.039 ^c	0.060 ^a	0.272 ^c	0.075 ^c
Significance level	*	*	ns	ns	*	*	*	*
CV (%)	13.5	9.08	15.5	19.5	15.2	22.5	12.6	7.35

Note: In the same column, numbers with the same superscripted letters are insignificantly different according to Duncan test.
 *: different at significance level of 5% ($p < 0.05$). NF: no fertilizer; NPKCaMg: fully-fertilized; PKCaMg: N-omitted; NKCaMg: P-omitted; NPCaMg: K-omitted; NPKMg: Ca-omitted; NPKCa: Mg-omitted; LFF: local farmers' fertilization.

Table S6. The fertilizer rates in the field experiment

Treatment	Fertilizer rate (kg ha ⁻¹)				
	N	P ₂ O ₅	K ₂ O	CaO	MgO
NF	0	0	0	0	0
NPKCaMg	434	314	362	1108	568
PKCaMg	0	314	362	1108	568
NKCaMg	434	0	362	1108	568
NPCaMg	434	314	0	1108	568
NPKMg	434	314	362	0	568
NPKCa	434	314	362	1108	0
LFF	720	540	0	0	0

NF: no fertilizer; NPKCaMg: fully-fertilized; PKCaMg: N-omitted; NKCaMg: P-omitted; NPCaMg: K-omitted; NPKMg: Ca-omitted; NPKCa: Mg-omitted; LFF: local farmers' fertilization.