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Acid Neutralization and Sulphur retention in S-impacted Andosols

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Appendix A

Profiles description

Annexe 1a.* Major morphological properties of the Eutric Andosols profiles.
Munsell colors on dry soil samples.

Horizon	Description
A 0-18/27 cm	10YR 3/3 (dark brown); clear regular boundary; loam to clay loam; well developed fine granular structure, many fine roots; very friable, slightly sticky, slightly plastic.
AB 18/27-24/29 cm	10YR 4/4 (brown); clear gradual boundary; clay loam to loam; well developed polyhedral subangular structure; friable, slightly sticky, slightly plastic.
Bw 24/29-33/40 cm	10YR 4/6 (brown); clear abrupt boundary; loam; subangular polyhedral structure; friable, slightly sticky, slightly plastic, slightly smeary.
Bwm 33/40-50/60 cm	10YR 4/6-5/6 (brown to yellowish brown); loam; massive structure with weak polyhedral subangular substructure (slightly consolidated), slightly firm to firm, slightly sticky, slightly plastic, slightly smeary.
2Am 50/60-70/80 cm	10YR 3/4-4/4 (dark brown to brown); clear regular boundary; clay loam; massive structure with weak subangular blocks (slightly consolidated); slightly firm to firm, slightly sticky, slightly plastic.

Annexe 1b.* Major morphological properties of the Vitric Andosols profiles.
Munsell colors on dry soil samples.

Horizon	Description
A 0-6/9 cm	10YR 3.5/2 (dark reddish brown); clear abrupt boundary; loam; particular structure; friable, slightly sticky, slightly plastic; many fine roots.
2BC 6/9-13/17 cm	10YR 3/2 (dark reddish brown); clear abrupt boundary; sandy loam; structureless; about 10 to 30 % of coarse fragments (lapilli, scoriae).
3A 13/17-21/29 cm	7.5YR 3/3 (dark brown); clear gradual boundary; sand; structureless; about 30 % of coarse fragments (lapilli, weathered scoriae).
3R 21/29-43/48 cm	Clear abrupt boundary, gravelly, slightly weathered lapilli and fine scoriae, with brownish external thin layer.
4A 43/48-52/58 cm	10YR 3/4 ((dark brown); clear gradual boundary; sand; structureless; about 10-30% of coarse fragments (lapilli, weathered scoriae).
4R 52/58-62/63 cm	Clear abrupt boundary, gravelly, slightly weathered lapilli and fine scoriae.
5R 62/63-77/83 cm	Clear abrupt boundary; unweathered black lapilli and scoriae.
6A 77/83-94/108 cm	10YR 2/3 (brownish black); coarse sand; weak granular structure; friable, non sticky, non plastic; about 10% of coarse fragments (lapilli, scoriae).

*More detailed descriptions and pictures will be provided on separate CD-ROM.

Appendix B

Rainwater sampling

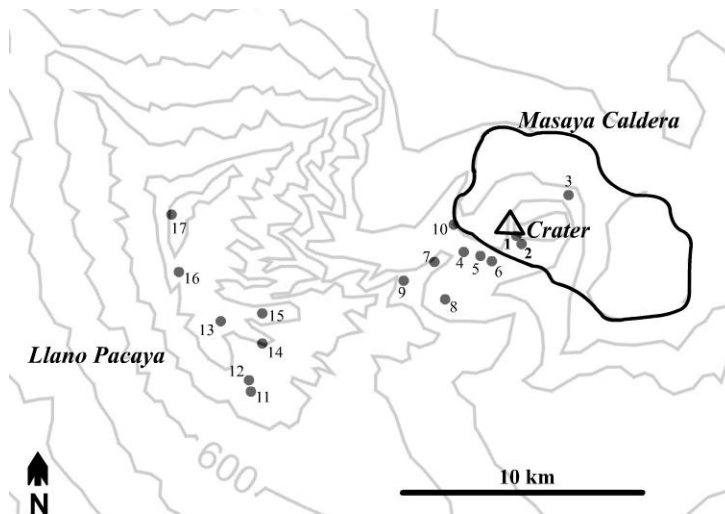


Figure B.1: Location of the raingauges used to collect rainwater.

Annexe 2. pH and ionic composition of rainwater collected downwind of Masaya volcano

Station*	Height / mm	pH	EC / $\mu\text{S cm}^{-1}$	F	Cl	SO ₄	NO ₃	K	Ca	Mg	Na	Al
/ mmol l ⁻¹												
1	20	2.5	1710	1.288	4.785	0.407	-	0.038	0.066	0.037	0.103	0.074
2	14	2.5	1570	1.211	4.274	0.341	-	0.039	0.091	0.034	0.097	0.071
3	12	6.2	23	0.001	0.041	0.006	0.005	0.011	0.014	0.003	0.033	-
4	12	3.5	161	0.051	0.346	0.086	0.008	0.012	0.009	0.008	0.067	0.008
5	10	3.7	107	0.035	0.266	0.083	0.009	0.018	0.018	0.011	0.101	0.011
6	10.5	5.2	50	0.020	0.206	0.057	0.009	0.042	0.015	0.013	0.078	0.004
7	12.5	3.7	101	0.044	0.302	0.060	0.009	0.020	0.016	0.008	0.114	0.006
8	18	3.5	173	0.063	0.420	0.052	0.007	0.007	0.007	0.005	0.047	0.012
9	15	4.1	51	0.019	0.146	0.043	0.008	0.011	0.017	0.008	0.053	0.012
10	9	5.2	23	0.002	0.083	0.022	0.012	0.024	0.013	0.007	0.059	-
11	10	4.9	29	0.003	0.111	0.034	0.012	0.010	0.019	0.010	0.082	0.001
12	10	4.3	43	0.006	0.153	0.043	0.014	0.014	0.021	0.012	0.110	0.004
13	13	3.8	84	0.019	0.263	0.055	0.012	0.020	0.018	0.012	0.118	0.008
14	14	4.1	63	0.013	0.210	0.047	0.011	0.026	0.017	0.010	0.116	0.005
15	13.5	3.7	99	0.018	0.229	0.072	0.010	0.019	0.012	0.007	0.086	0.007
16	28.5	3.8	73	0.019	0.173	0.045	0.007	0.013	0.008	0.005	0.062	0.003
17	17.5	4.0	67	0.015	0.227	0.048	0.013	0.024	0.019	0.013	0.140	0.004

*The locations of the sampling sites are shown on Figure B.1