

Table S1. Urine derivatives, preparation and main N compound.

URINE Derivatives	Liquid/solid	Preparation	Main N compound
Stabilized urine – low pH	Liquid	Stabilized real human urine at pH 2 after HCl addition	Urea
Stabilized urine – high pH	Liquid	Stabilized real human urine at pH > 11 after NaOH and CaO addition	Urea
Hydrolyzed urine	Liquid	Stored real human urine (after spontaneous urea hydrolysis)	TAN (ammonia and ammonium)
ED concentrate	Liquid	Real human urine treated with precipitation, nitrification & electro dialysis	Nitrate
Aurin	Liquid	Commercial fertilizer made from real human urine, using partial nitrification and distillation	Ammonium nitrate
K-struvite	Solid	Precipitate obtained from urine by removing all NH ₄ -N (below 50 mg N/L), adding an equivalent molar amount of Mg ²⁺ and increasing the pH to 10.	Ammonium
Urine precipitate – NaOH	Solid	Precipitate obtained by increasing the pH of fresh urine to 12.5 with NaOH	Ammonium
Urine precipitate – CaO	Solid	Precipitate obtained by increasing the pH of fresh urine to 12.6 with CaO	Ammonium

Table S2. Concentrations of the treatments after dilution before the addition of chemical fertilizers, expressed in mg/L of rain water.

Treatments	Total N	NH ₄ ⁺ -N	NO ₂ ⁻ -N	NO ₃ ⁻ -N	PO ₄ ³⁻ -P	K ⁺	SO ₄ ²⁻	Ca ²⁺	Mg ²⁺	Na ⁺	Cl ⁻
Stabilized urine-low pH ¹	152.3	12.0	0.0	0.3	6.2	63.1	21.7	-	-	64.8	162.5
stabilized urine-high pH ¹	152.0	10.9	0.1	0.2	0.1	43.9	21.4	0.3	3.0	67.9	93.0
Hydrolyzed urine ¹	151.9	148.5	0.0	0.0	3.9	60.9	23.9	-	-	61.2	100.3
ED concentrate ¹	151.9	0.4	4.1	131.1	2.5	62.6	7.6	-	-	296.2	132.3
Aurin ¹	152.0	73.6	0.0	78.4	6.3	54.1	-	-	-	61.5	112.2
K-Struvite ²	1.65	1.32	0.0	0.0	19.2	42.4	-	5.6	4.8	16.6	2.05
Urine precipitate-NaOH ²	136.8	20.5	0.0	0.0	19.2	48.6	-	2.2	0.5	107.4	93.4
Urine precipitate-CaO ²	100.0	9.2	0.1	0.1	19.2	43.5	0.0	27.8	0.1	36.3	82.4
NPK 20-10-20 + TE ^{1,2}	152.0	60.8	0.0	91.2	76.0	152.0	-	-	1.1	-	-

¹ the only source of nitrogen, ² the only source of phosphorous.