

Application of organomineral fertilizers sourced from filter cake and sewage sludge can affect nutrients and heavy metals in soil during early development of maize

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Supplementary Table 1. Doses and types of fertilizer evaluated for maize crop fertilization. Uberlândia, 2015.

Fertilizers	* Percentage of Phosphorus (%)	Doses of P ₂ O ₅ (kg ha ⁻¹)
Organomineral biosolids	60	72
Organomineral filter cake	60	72
Organomineral biosolids	80	96
Organomineral filter cake	80	96
Organomineral biosolids	100	120
Organomineral filter cake	100	120
Organomineral biosolids	120	144
Organomineral filter cake	120	144
Organomineral biosolids	140	168
Organomineral filter cake	140	168
Positive Control (mineral fertilization)	100	120
Negative Control (absence of fertilization)	–	–

* Percentage of phosphorus in relation to 100% of the dose (120 kg ha⁻¹) recommended according to "Recommendation for use of correctives and fertilizers in Minas Gerais" (ALVES et al., 1999).

Supplementary Table 2. Chemical characterization of the Red Latosol sample. Uberlândia, 2015.

pH _{water} (1:2,5)	P _{meh-1} mg dm ⁻³	K	Ca ²⁺	Mg ²⁺	Al ³⁺	H+Al	SB	t	T	
6.2	2.3	0.31	2.3	0.8	0	2.8	3.41	3.41	6.21	
V	m	O.M.	O.C.			B	Cu	Fe	Mn	Zn
55	0	2.7	1.6			0.07	8.6	10	7	1.7

P, K=(HCL 0.05 mol L⁻¹ + H₂SO₄ 0.0125 mol L⁻¹) P available (extractor Mehlich-1); Ca, Mg, Al (KCl 1 mol L⁻¹); H+Al= (Buffer Solution – SMP a pH 7.5); SB= Sum of Bases; t= Cation Exchange Capacity Effective; T= Cation Exchange Capacity Effective at pH 7.0; V= Base Saturation; m= Saturation by Aluminum (EMBRAPA, 1997), Organic matter –O.M = Colorimetric Method. B = (BaCl₂.2H₂O 0.0125% hot); Cu, Fe, Mn, Zn= (DTPA 0.005 mol L⁻¹ + TEA 0.1 mol L⁻¹ + CaCl₂ 0.01 mol L⁻¹ at pH 7.3). Organic carbon O.C.

Supplementary Table 3. Chemical attributes of biosolids. Uberlândia, 2014.

Biosolid	pH _{water} (1:2,5)	TOC		P ₂ O ₅ Total		K ₂ O	C/N ratio		O.M		
		%		%					g Kg ⁻¹		
	12.65	19.80	2.23	0.24	28/1	368.60					
	C	N	Na	Ca	Mg	P	K	S	Mn	Fe	Al
	213.80	20.88	0.61	302.0	4.2	1.6	0.6	12.4	138.75	12753.25	20104.53

Characterized according to the Embrapa methodology (2013). TOC: Total organic carbon. M.O: Organic Matter

Table supplementary 4. Chemical attributes of filter cake .Uberlândia, 2014.

Filter Cake	pH _{water} (1:2,5)	TOC	N Total	P ₂ O ₅ Total	K ₂ O	C/N ratio
		%				
	6.81	23.49	0.61	0.95	0.30	13.72/1

Characterized according to the Embrapa methodology (2013). TOC: Total organic carbon.