Supplementary Material Table S1. Soil surface (A_P; 0.0–0.2 m) main physical[a] and chemical[b] properties before the experiment started (mean ± SE, n = 3)

Attributes	Units	Depth (m) 0.0–0.2		
pH ($CaCl_2$)	-	4.5	±	0.1
Sand	g kg^{-1}	550	±	13
Silt	g kg^{-1}	80	±	3
Clay	g kg^{-1}	370	±	19
Texture		Sandy-clay		
SOM	g kg^{-1}	19.0	±	1.2
P	mg kg^{-1}	16.6	±	0.6
K^+	mmol$_c$ kg^{-1}	1.7	±	0.2
Ca^{2+}	mmol$_c$ kg^{-1}	13.0	±	0.6
Mg^{2+}	mmol$_c$ kg^{-1}	12.0	±	1.6
CEC	mmol$_c$ kg^{-1}	63.7	±	0.9
B	mg kg^{-1}	0.22	±	0.04
Cu	mg kg^{-1}	1.8	±	0.1
Fe	mg kg^{-1}	15.0	±	0.6
Mn	mg kg^{-1}	18.8	±	0.6
Zn	mg kg^{-1}	0.6	±	0.1

[a] Teixeira [20]. [b] Raij et al. [21]. SOM: soil organic matter. CEC: Cation-exchange capacity.

Supplementary Material Table S2. Equation for micronutrient behavior in soils; function was obtained considering soil elements concentration after 2 years of maize cultivation vs. CSS applied rates.

Nutrient	Equation (*WA*)	R^2	Equation (*BR*)	R^2
		2017/18		
B	$\hat{y} = 0.282 + 0.007x$	0.74*	$\hat{y} = 0.235 + 0.010x$	0.55**
Cu	$\hat{y} = 2.3^{NS}$	--	$\hat{y} = 2.3^{NS}$	--
Fe	$\hat{y} = 35.325 - 3.630x + 0.220x^2$	0.71**	$\hat{y} = 23^{NS}$	--
Mn	$\hat{y} = 20^{NS}$	--	$\hat{y} = 22^{NS}$	--
Zn	$\hat{y} = 0.992 + 0.030x$	0.26*	$\hat{y} = 1.2^{NS}$	--
		2018/19		
B	$\hat{y} = 0.030x + 0.078$	0.79**	$\hat{y} = 0.0001 + 0.076x - 0.004x^2$	0.99**
Cu	$\hat{y} = 1.5^{NS}$	--	$\hat{y} = 1.4^{NS}$	--
Fe	$\hat{y} = 17.0^{NS}$	--	$\hat{y} = 13.6^{NS}$	--
Mn	$\hat{y} = 15.580 - 0.412x$	0.96**	$\hat{y} = 11.9^{NS}$	--
Zn	$\hat{y} = 0.060 + 0.226x$	0.90**	$\hat{y} = 1.5^{NS}$	--

*, ** for $p \leq 0.05$, ≤ 0.01, respectively; ^{NS} = not significant; *WA* = whole area; *BR* = between rows.

Supplementary Material Table S3. Equation for investigated micronutrient behavior in leaves; function was obtained considering leaf element concentration after 2 years of maize cultivation vs. CSS applied rates.

Nutrient	Equation (*WA*)	R^2	Equation (*BR*)	R^2
		2017/18		
B	$\hat{y} = 15^{NS}$	--	$\hat{y} = 33.310 - 4.519x - 0.254x^2$	0.99**
Cu	$\hat{y} = 28.950 - 1.130x$	0.95**	$\hat{y} = 52.300 - 8.720x - 0.480x^2$	0.99**
Fe	$\hat{y} = 1.260x^2 - 23.030x + 208.825$	0.47**	$\hat{y} = 117^{NS}$	--
Mn	$\hat{y} = 70^{NS}$	--	$\hat{y} = 96.750 - 8.150x + 0.460x^2$	0.42**
Zn	$\hat{y} = 40^{NS}$	--	$\hat{y} = 34.625 + 0.500x$	0.47**
		2018/19		
B	$\hat{y} = 5^{NS}$	--	$\hat{y} = 27.547 - 4.119x + 0.194x^2$	0.54**
Cu	$\hat{y} = 7^{NS}$	--	$\hat{y} = 3.943 - 8.759x - 0.215x^2$	0.56**
Fe	$\hat{y} = 98^{NS}$	--	$\hat{y} = 33.785 + 14.856x - 0.760x^2$	0.90**
Mn	$\hat{y} = 28^{NS}$	--	$\hat{y} = -28.455 + 13.702x - 0.752x^2$	0.92**
Zn	$\hat{y} = 22.182 + 0.562x$	0.74*	$\hat{y} = 27^{NS}$	--

*, ** for $p \leq 0.05$, ≤ 0.01, respectively; ^{NS} = not significant; *WA* = whole area; *BR* = between rows.

Supplementary Material Table S4. Equation for investigated plant parameters; function was obtained considering investigated plant parameters after 2 years of maize cultivation vs. CSS applied rates.

Parameter	Equation (*WA*)	R^2	Equation (*BR*)	R^2
		2018		
PH	$\hat{y} = 211^{NS}$	--	$\hat{y} = 209^{NS}$	--
HEI	$\hat{y} = 129^{NS}$	--	$\hat{y} = 129^{NS}$	--
SD	$\hat{y} = 2.4^{NS}$	--	$\hat{y} = 2.4^{NS}$	--
NRE	$\hat{y} = 13.500 + 0.825x - 0.042x^2$	0.91**	$\hat{y} = 18^{NS}$	--
NGE	$\hat{y} = 612^{NS}$	--	$\hat{y} = 625^{NS}$	--
SW	$\hat{y} = 270^{NS}$	--	$\hat{y} = 268^{NS}$	--
Yield	$\hat{y} = 5639.015 + 197.044x$	0.84**	$\hat{y} = 7539^{NS}$	--
		2019		
PH	$\hat{y} = 225^{NS}$	--	$\hat{y} = 227^{NS}$	--
HEI	$\hat{y} = 137^{NS}$	--	$\hat{y} = 138^{NS}$	--
SD	$\hat{y} = 21.3^{NS}$	--	$\hat{y} = 20.7^{NS}$	--
NRE	$\hat{y} = 17^{NS}$	--	$\hat{y} = 17^{NS}$	--
NGE	$\hat{y} = 543^{NS}$	--	$\hat{y} = 552^{NS}$	--
SW	$\hat{y} = 291^{NS}$	--	$\hat{y} = 292^{NS}$	--
Yield	$\hat{y} = 9566^{NS}$	--	$\hat{y} = 9767^{NS}$	--

*, ** for $p \leq 0.05$, ≤ 0.01, respectively; ^{NS} = not significant; *WA* = whole area; *BR* = between rows. PH = plant height; HEI = height from ear insertion; SD = stem diameter; NRE = number of rows per ear; NGE = number of grains per ear; SW = 1,000 seed weight.