

TABLES

Table 1. Characteristics of the substrata used in the experiment (Jordán et al., 2008).

Parameter	Z	D
Clay < 2 μ (g/Kg)	150	210
Silt 2-50 μ (g/kg)	160	260
Sand 50 μ -2 mm(g/kg)	690	530
pH	8.25	8.92
EC μ S/cm (25 °C)	257.20	56.32
OM (g/kg)	5.3	2.7
P (mg/kg DM)	2.04	2.07
Ca (g/kg DM)	3.37	3.26
Mg (mg/kg DM)	134.13	337.57
Na (mg/kg DM)	222.15	63.27
K (mg/kg DM)	34.66	64.31
Fe (mg/kg DM)	2.25	1.48
Cu (mg/kg DM)	0.29	0.18
Mn (mg/kg DM)	2.08	1.07
Zn (mg/kg DM)	0.73	0.36
N (g/kg)	0.3	0.2
CaCO ₃ (g/kg)	450-750	550-700
Active CaCO ₃ (g/kg)	180	150

Z: Limestone spoils; D: Stripped soil; DM: Dry matter.

Table 2. Sewage sludge composition (dry matter, DM) from the Aspe wastewater treatment plant

Parameter	Value
Organic C (%)	43.4
Kjeldahl N (%)	3.8
C:N ratio	12
P (%)	0.32
K (%)	0.18
Ca (%)	0.10
Mg (%)	0.07
Fe (g/kg DM)	5.58
Cu (mg/kg DM)	279
Cd (mg/kg DM)	0.98
Ni (mg/kg DM)	19
Pb (mg/kg DM)	123
Zn (mg/kg DM)	778
Hg (mg/kg DM)	1.26
Cr (mg/kg DM)	22

Table 3. Experimental design and identifying symbols.

Symbol	Material contents
Z ₀	30 cm column filled with limestone spoils.
D ₀	30 cm column filled with stripped soil (fine).
(Z+D) ₀	30 cm column filled from 0-15 cm with stripped soil and 15-30 cm with limestone spoils.
D ₃₁	30 cm column filled with stripped soil. Sewage sludge dose (30,000 kg/ha) homogenous mixture first 15 centimeters. First replication.
D ₃₂	30 cm column filled with stripped soil. Sewage sludge dose (30,000 kg/ha) homogenous mixture first 15 centimeters. Second replication.
D ₃₃	30 cm column filled with stripped soil. Sewage sludge dose (30,000 kg/ha) homogenous mixture first 15 centimeters. Third replication.
D ₉₁	30 cm column filled with stripped soil. Sewage sludge dose (90,000 kg/ha) homogenous mixture first 15 centimeters. First replication.
D ₉₂	30 cm column filled with stripped soil. Sewage sludge dose (90,000 kg/ha) homogenous mixture first 15 centimeters. Second replication.
D ₉₃	30 cm column filled with stripped soil. Sewage sludge dose (90,000 kg/ha) homogenous mixture first 15 centimeters. Third replication.
(Z+D) ₃₁	30 cm column filled from 0-15 cm with stripped soil and 15-30 cm with limestone spoils. Sewage sludge dose (30,000 kg/ha) homogenous mixture first 15 centimeters. First replication.
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(Z+D) ₃₃	30 cm column filled from 0-15 cm with stripped soil and 15-30 cm with limestone spoils. Sewage sludge dose (30,000 kg/ha) homogenous mixture first 15 centimeters. Third replication.
(Z+D) ₉₁	30 cm column filled from 0-15 cm with stripped soil and 15-30 cm with limestone spoils. Sewage sludge dose (90,000 kg/ha) homogenous mixture first 15 centimeters. First replication.
(Z+D) ₉₂	30 cm column filled from 0-15 cm with stripped soil and 15-30 cm with limestone spoils. Sewage sludge dose (90,000 kg/ha) homogenous mixture first 15 centimeters. Second replication.
(Z+D) ₉₃	30 cm column filled from 0-15 cm with stripped soil and 15-30 cm with limestone spoils. Sewage sludge dose (90,000 kg/ha) homogenous mixture first 15 centimeters. Third replication.

Table 4.- Characteristics of the irrigation water.

Parameter	Range
pH	7.0-7.8
EC ($\mu\text{S}/\text{cm}$) 25 °C	2-4
NH_4^+ (mg/L)	0-0.03
NO_3^- (mg/L)	0-1
SO_4^{2-} (mg/L)	0-1
PO_4^{3-} (mg/L)	0-4
Cl^- (mg/L)	0-3
K^+ (mg/L)	0-0.5
Na^+ (mg/L)	0-0.1
Ca^{2+} (mg/L)	0-0.1
Mg^{2+} (mg/L)	0-0.01

Table 6.- Correlations (R^2) between ions (mg/L) and/or EC ($\mu\text{S}/\text{cm}$).

Correlations	EC	SO_4^{2-}	NO_3^-
Ca^{2+}	0.9222	0.7080	0.8758
Mg^{2+}	0.8723	0.8044	0.9165
Na^+	0.8685	< 0.6	0.7215
K^+	< 0.6	0.7067	< 0.6
NO_3^-	0.9729	< 0.6	1
SO_4^{2-}	0.7701	1	< 0.5