

Supplemental Tables

Cátia Santos, Joana Monte, Natália Vilaça, João Fonseca, Henrique Trindade, Isabel Cortez and Piebep Goufo. 2021. Evaluation of the potential of agro-industrial waste-based composts to control *Botrytis* gray mold and soilborne fungal diseases in lettuce. *Processes*.

Table S1. Mineral composition (dry weight basis) of composts made from chestnut peels and shells, coffee grounds, grape marc and olive leaves, which were tested in this study. Different letters in a column indicate significant differences among means ($p < 0.05$; ANOVA/Tukey's test). Data were adapted from Santos, C.; Fonseca, J.; Aires, A.; Coutinho, J.; Trindade, H. Effect of different rates of spent coffee grounds (SCG) on composting process, gaseous emissions and quality of end-product. *Waste Manag.* **2017**, *59*, 37–47. <https://doi.org/10.1016/j.wasman.2016.10.020>; Santos, C.; Goufo, P.; Fonseca, J.; Pereira, J.L.S.; Ferreira, L.; Coutinho, J.; Trindade, H. Effect of lignocellulosic and phenolic compounds on ammonia, nitric oxide and greenhouse gas emissions during composting. *J. Clean. Prod.* **2018**, *171*, 548–556. <https://doi.org/10.1016/j.jclepro.2017.10.050>.

Treatments	P (g kg ⁻¹)	Ca (g kg ⁻¹)	Mg (g kg ⁻¹)	Fe (mg kg ⁻¹)	Cu (mg kg ⁻¹)	Zn (mg kg ⁻¹)	Mn (mg kg ⁻¹)
CONTROL	1.59 ± 0.32 b	9.86 ± 4.78 a	1.00 ± 0.15 c	250.6 ± 140.69 c	4.15 ± 1.14 c	5.92 ± 1.42 c	44.67 ± 2.87 c
Chestnut peels + shells	1.57 ± 0.73 b	8.13 ± 0.83 b	1.18 ± 0.31 bc	293.5 ± 88.77 c	6.44 ± 0.89 b	9.42 ± 3.37 b	48.92 ± 9.93 c
Coffee grounds	2.33 ± 0.04 a	8.23 ± 0.09 b	2.38 ± 0.39 a	638.3 ± 47.73 a	7.85 ± 1.23 ab	10.57 ± 0.28 b	78.09 ± 13.52 b
Grape marc	2.30 ± 0.25 a	8.30 ± 0.43 b	1.38 ± 0.08 b	266.9 ± 67.61 c	8.57 ± 1.05 a	16.67 ± 4.59 a	139.67 ± 10.51 a
Olive leaves	1.81 ± 0.18 b	9.92 ± 2.07 a	1.26 ± 0.14 bc	539.1 ± 172.60 b	8.86 ± 0.59 a	15.92 ± 3.34 a	51.25 ± 4.19 bc

Table S2. Phenolic composition (dry weight basis) of composts made from chestnut peels and shells, coffee grounds, grape marc and olive leaves, which were tested in this study. Different letters in a column indicate significant differences among means ($p < 0.05$; ANOVA/Tukey's test). Data were adapted from Santos, C.; Fonseca, J.; Aires, A.; Coutinho, J.; Trindade, H. Effect of different rates of spent coffee grounds (SCG) on composting process, gaseous emissions and quality of end-product. *Waste Manag.* **2017**, *59*, 37–47. <https://doi.org/10.1016/j.wasman.2016.10.020>; Santos, C.; Goufo, P.; Fonseca, J.; Pereira, J.L.S.; Ferreira, L.; Coutinho, J.; Trindade, H. Effect of lignocellulosic and phenolic compounds on ammonia, nitric oxide and greenhouse gas emissions during composting. *J. Clean. Prod.* **2018**, *171*, 548–556. <https://doi.org/10.1016/j.jclepro.2017.10.050>.

Treatments	Total phenolics (mg g ⁻¹)	Gallic acid (mg g ⁻¹)	Hemicellulose (g kg ⁻¹)	Cellulose (g kg ⁻¹)	Lignin (g kg ⁻¹)	Lignocellulose (g kg ⁻¹)	Lignin/holocellulose ratio
CONTROL	1.18 ± 0.08 a	22.64 ± 0.92 a	55.65 ± 6.98 b	240.41 ± 3.73 a	248.14 ± 2.08 bc	544.23 ± 5.66 b	0.84 ± 0.01 b
Chestnut peels + shells	1.07 ± 0.10 a	25.96 ± 1.87 a	58.95 ± 15.90 b	215.13 ± 17.56 ab	379.73 ± 18.48 a	653.80 ± 12.54 a	1.40 ± 0.23 a
Coffee grounds	0.89 ± 0.04 a	28.02 ± 1.06 a	115.54 ± 8.39 a	75.80 ± 3.99 c	205.95 ± 37.12 c	397.27 ± 33.44 d	1.16 ± 0.52 ab
Grape marc	1.02 ± 0.35 a	30.41 ± 6.58 a	108.92 ± 21.75 a	184.69 ± 46.91 b	352.02 ± 37.18 a	654.45 ± 32.32 a	1.27 ± 0.42 ab
Olive leaves	0.15 ± 0.00 a	30.02 ± 9.36 a	108.87 ± 4.12 a	86.02 ± 43.60 c	285.95 ± 40.32 b	480.63 ± 13.08 c	1.58 ± 0.61 a

Table S3. Physicochemical characteristics (dry weight basis) of composts made from chestnut peels and shells, coffee grounds, grape marc and olive leaves, which were tested in this study. Different letters in a column indicate significant differences among means ($p < 0.05$; ANOVA/Tukey's test). Data were adapted from Table 1 of this manuscript, and from Santos, C.; Fonseca, J.; Aires, A.; Coutinho, J.; Trindade, H. Effect of different rates of spent coffee grounds (SCG) on composting process, gaseous emissions and quality of end-product. *Waste Manag.* **2017**, *59*, 37–47. <https://doi.org/10.1016/j.wasman.2016.10.020>; Santos, C.; Goufo, P.; Fonseca, J.; Pereira, J.L.S.; Ferreira, L.; Coutinho, J.; Trindade, H. Effect of lignocellulosic and phenolic compounds on ammonia, nitric oxide and greenhouse gas emissions during composting. *J. Clean. Prod.* **2018**, *171*, 548–556. <https://doi.org/10.1016/j.jclepro.2017.10.050>.

Treatments	Soluble organic carbon (g C kg ⁻¹)	Soluble organic nitrogen (g N kg ⁻¹)	Ammonium NH ₄ ⁺ -N (mg N kg ⁻¹)	Nitrate NO ₃ ⁻ (mg N kg ⁻¹)	Total organic matter (g C kg ⁻¹)	Total organic carbon (g C kg ⁻¹)	Total nitrogen (g N kg ⁻¹)	C/N	pH	Electrical conductivity (dS m ⁻¹ ; water 1:5)
CONTROL	8.89 ± 1.84 cd	4.84 ± 2.00 a	693.40 ± 16.79 a	0.18 ± 0.06 b	938.02 ± 24.21 a	489.61 ± 8.42 b	23.80 ± 0.53 c	20.57 ± 0.54 b	8.11 ± 0.48 b	1.79 ± 0.07 a
Chestnut peels + shells	6.06 ± 1.40 d	4.21 ± 0.92 a	686.04 ± 29.51 a	0.44 ± 0.10 b	959.37 ± 4.72 a	537.07 ± 3.51 a	22.14 ± 0.63 c	24.25 ± 0.54 a	9.43 ± 0.30 ab	1.43 ± 0.19 ab
Coffee grounds	5.48 ± 0.24 d	2.84 ± 0.25 b	281.65 ± 18.94 c	0.52 ± 0.12 b	927.10 ± 19.69 a	495.41 ± 4.87 b	57.01 ± 4.87 a	8.68 ± 0.15 c	7.05 ± 0.05 c	0.78 ± 0.07 c
Grape marc	19.65 ± 3.67 a	5.69 ± 1.25 a	378.44 ± 15.17 b	4.88 ± 1.03 a	946.65 ± 4.84 a	523.08 ± 2.62 ab	26.52 ± 2.59 b	19.72 ± 2.59 b	9.01 ± 0.02 b	1.28 ± 0.13 b
Olive leaves	12.70 ± 1.20 bc	4.21 ± 1.02 a	280.06 ± 12.71 c	0.20 ± 0.09 b	948.23 ± 6.80 a	533.26 ± 0.77 ab	24.46 ± 1.64 bc	21.80 ± 1.52 a	9.53 ± 0.14 a	1.23 ± 0.12 b

Table S4. Lettuce head yield (g plant⁻¹), disease severity and disease incidence of gray mold and Fusarium wilt in lettuce plants grown on soil/compost mixes inoculated with *B. cinerea* and *F. oxysporum*. The composts were incorporated into soils at proportions of 5% and 10% (weight basis). Control treatments consisted of non-amended soils. Disease incidence (%) = (total number of infected plants / total number of examined plants) * 100. A semi-quantitative scale from 1 to 4 was used to rate the severity of the disease, where: 1 = no symptoms; 2 = leaf yellowing; 3 = stem wilting; and 4 = plant dead. Different letters in a column indicate significant differences among means ($p < 0.05$; ANOVA/Tukey's test). Data were adapted from Figures 2, 3 and 4, and Table 2 of this manuscript.

Treatments	Whole lettuce yield on 5% compost in presence of <i>B. cinerea</i>	Whole lettuce yield on 10% compost in presence of <i>B. cinerea</i>	Whole lettuce yield on 5% compost in presence of <i>F. oxysporum</i>	Whole lettuce yield on 5% compost in presence of <i>F. oxysporum</i>	Disease incidence of gray mold on 5% compost	Disease incidence of gray mold on 10% compost	Disease incidence of Fusarium wilt on 5% compost	Disease incidence of Fusarium wilt on 10% compost	Disease severity of gray mold on 5% compost	Disease severity of gray mold on 10% compost	Disease severity of Fusarium wilt on 5% compost	Disease severity of Fusarium wilt on 10% compost
CONTROL	2.54 ± 0.63 c	2.54 ± 0.63 c	1.78 ± 1.07 d	1.78 ± 1.07 d	82.36 ± 2.10 a	82.36 ± 2.10 a	0.00 ± 0.00 c	0.00 ± 0.00 b	3.17 ± 0.47 a	3.17 ± 0.47 a	1.00 ± 0.00 b	1.00 ± 0.00 b
Chestnut peels + shells	9.54 ± 1.07 a	11.77 ± 1.03 a	9.88 ± 1.51 a	9.57 ± 1.44 a	0.00 ± 0.00 c	0.00 ± 0.00 c	0.00 ± 0.00 c	0.00 ± 0.00 b	1.14 ± 0.02 b	1.07 ± 0.05 c	1.02 ± 0.06 b	1.07 ± 0.05 b
Coffee grounds	2.62 ± 0.12 c	3.20 ± 0.09 c	2.87 ± 0.03 c	4.77 ± 0.17 c	48.82 ± 7.13 b	26.44 ± 8.11 b	55.62 ± 9.79 b	0.00 ± 0.00 b	2.99 ± 0.50 a	2.43 ± 0.59 b	2.76 ± 0.61 a	1.15 ± 0.11 b
Grape marc	6.57 ± 0.82 b	7.32 ± 0.60 b	4.88 ± 0.90 b	7.57 ± 0.28 b	50.02 ± 6.92 b	75.15 ± 6.21 a	96.10 ± 5.31 a	39.28 ± 1.57 a	3.77 ± 0.21 a	3.56 ± 0.44 a	3.15 ± 0.80 a	2.63 ± 0.50 a
Olive leaves	9.76 ± 0.76 a	12.63 ± 1.31 a	10.33 ± 1.56 a	9.74 ± 1.53 a	0.00 ± 0.00 c	0.00 ± 0.00 c	0.00 ± 0.00 c	0.00 ± 0.00 b	1.03 ± 0.03 b	1.00 ± 0.00 c	1.00 ± 0.02 b	1.06 ± 0.04 b