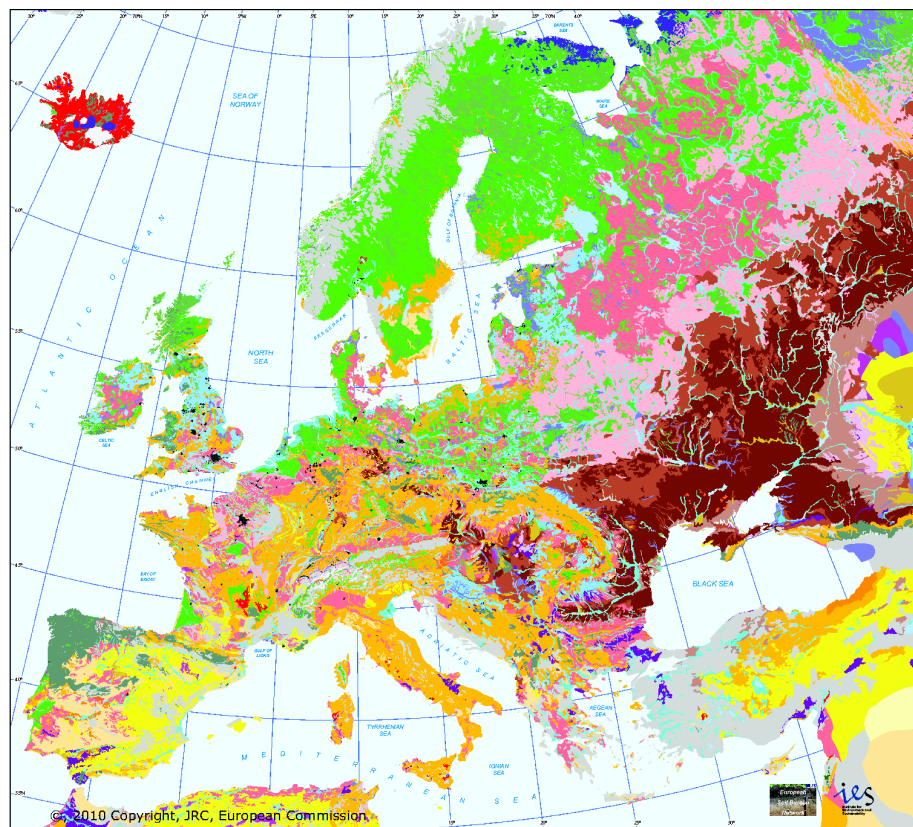


Appendices



- | | |
|--|--|
| <ul style="list-style-type: none"> Albelvisols: Acid soils with bleached topsoil material tonguing into the subsoil Arenosols: Soils developed in quartz-rich, sandy deposits such as coastal dunes or deserts Cambisols: Young soils with moderate horizon development Cryosols: Soil influenced by permafrost or cryogenic processes Gleysols: Soils saturated by groundwater for long periods Histosols: Organic soils with layers of partially decomposed plant residues Andosols: Young soils developed in porous volcanic deposits Calcisols: Soils with significant accumulations of calcium carbonate Chernozems: Dark, fertile soils with organic-rich topsoil Fluvisols: Stratified soils, found mostly in floodplains and tidal marshes Gypsisols: Soils of dry lands with significant accumulations of gypsum Kastanozems: Soils of dry grasslands with topsoil that is rich in organic matter | <ul style="list-style-type: none"> Leptosols: Shallow soils over hard rock or extremely gravelly material Luvvisols: Fertile soils with clay accumulation in the subsoil Phaeozems: Dark, moderately-leached soils with organic rich topsoil Vertisols: Heavy clay soils that swell when wet and crack when dry Podzols: Acid soils with subsurface accumulations of iron, aluminium and organic compounds Regosols: Young soils with no significant profile development Solenchaks: Soils with salt enrichment due to the evaporation of saline groundwater Solonetz: Alkaline soils with clayey, prismatic-shaped aggregates and a sodium-rich subsurface horizon Stagnosols: Soils with stagnating surface water due to slowly permeable subsoil Technosols: Soils containing significant amounts of human artefacts or sealed by impermeable material Umbrisols: Young, acid soils with dark topsoil that is rich in organic matter Planosols: Soils with occasional water stagnation due to an abrupt change in texture between the topsoil and the subsoil than impedes drainage |
|--|--|

Figure 42: The major soil types of Europe [17].

Table 6: Results of elemental analysis (*deviation was calculated separately for each value, average standard deviations : 0.006 % for N, 0.021 % for C, 0.013 % for H and 0.004 % for S*).

Soil type	Concentration of added P3HB (%)	Time of the analysis	Total N (%)	Total C (%)	Total H (%)	Total S (%)
Phaeozem	0	Before degradation	0.321	3.179	1.025	0.059
	0	After degradation	0.319	2.971	1.126	0.082
	0.5	After degradation	0.316	3.085	0.983	0.035
	1	After degradation	0.309	3.062	1.016	0.040
	3	After degradation	0.312	3.556	1.036	0.045
Cambisol	0	Before degradation	0.125	0.987	0.447	0.025
	0	After degradation	0.110	0.957	0.474	0.025
	0.5	After degradation	0.111	0.935	0.473	0.018
	1	After degradation	0.125	1.013	0.439	0.023
	3	After degradation	0.126	1.623	0.533	0.019
Chernozem	0	Before degradation	0.323	3.048	-	-
	0	After degradation	0.283	2.555	1.010	0.053
	0.5	After degradation	0.282	2.694	1.042	0.042
	1	After degradation	0.274	2.765	1.080	0.047
	3	After degradation	0.288	3.334	1.174	0.047

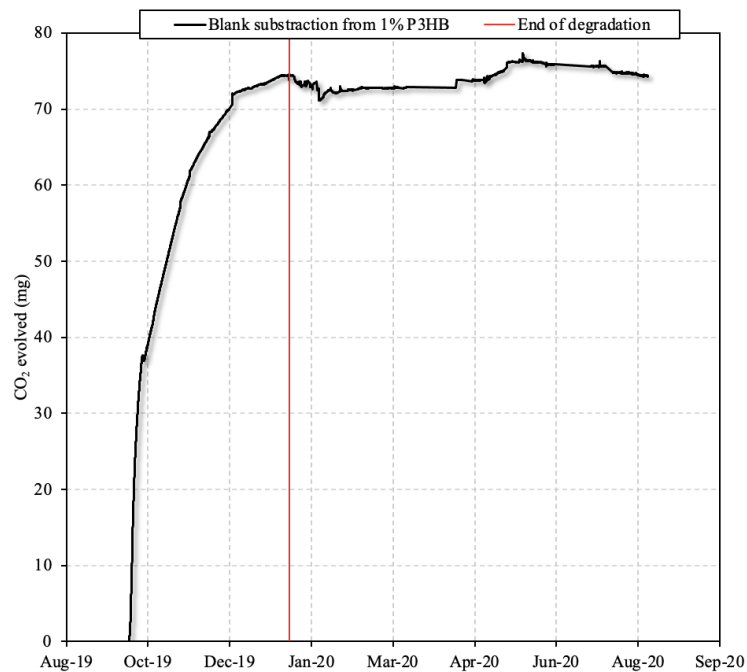


Figure 43: Subtraction of blank values from chernozem soil spiked with 1 % P3HB.

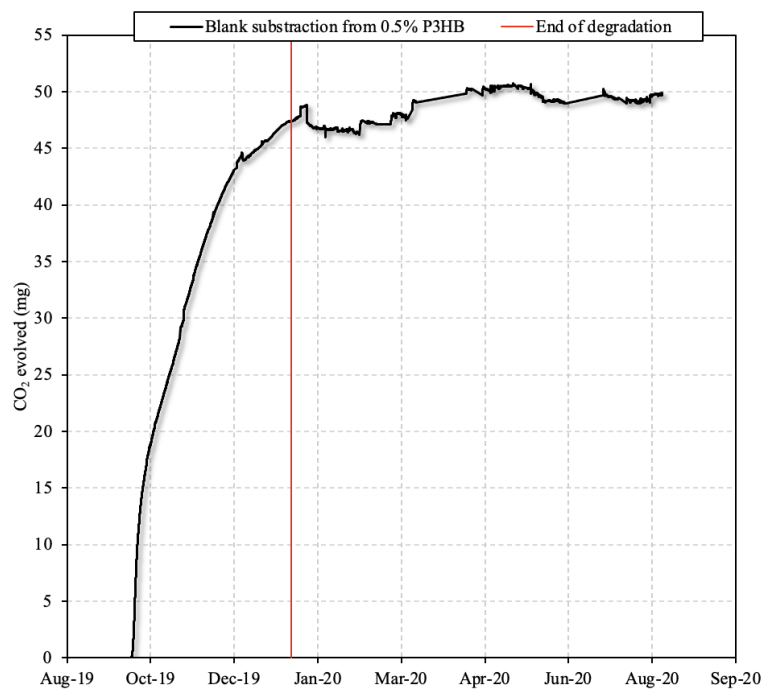


Figure 44: Subtraction of blank values from cambisol soil spiked with 0.5 % P3HB.

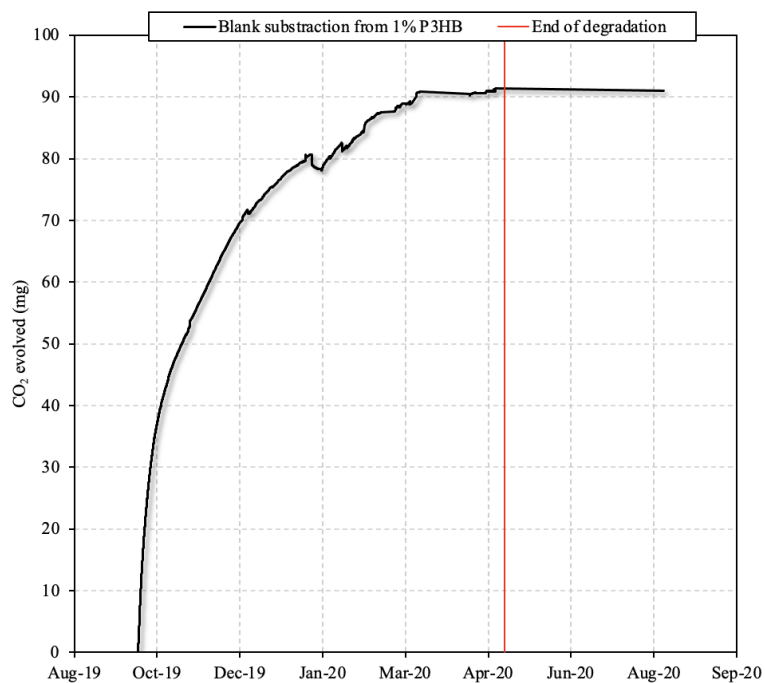


Figure 45: Subtraction of blank values from cambisol soil spiked with 1% P3HB.

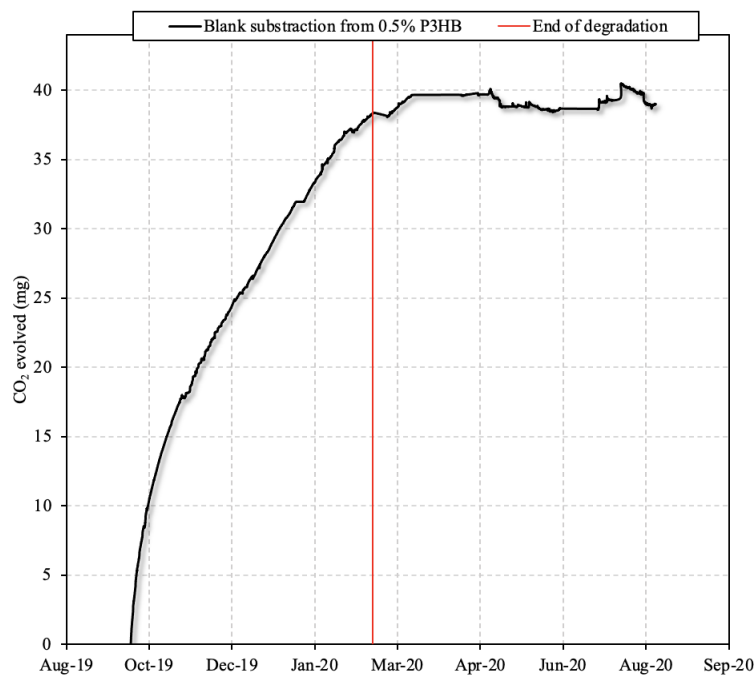


Figure 46: Subtraction of blank values from phaeozem soil spiked with 0.5% P3HB.

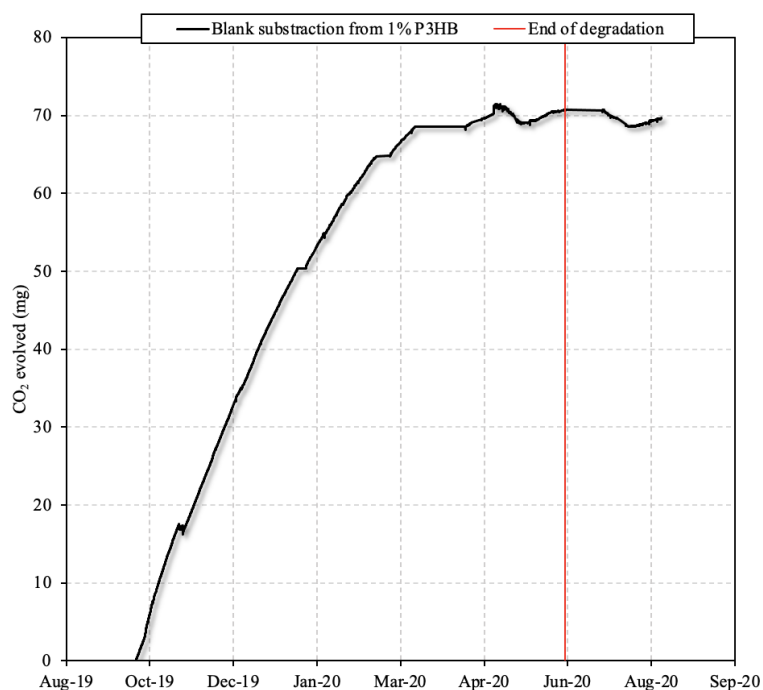


Figure 47: Subtraction of blank values from chernozem soil spiked with 1 % P3HB.

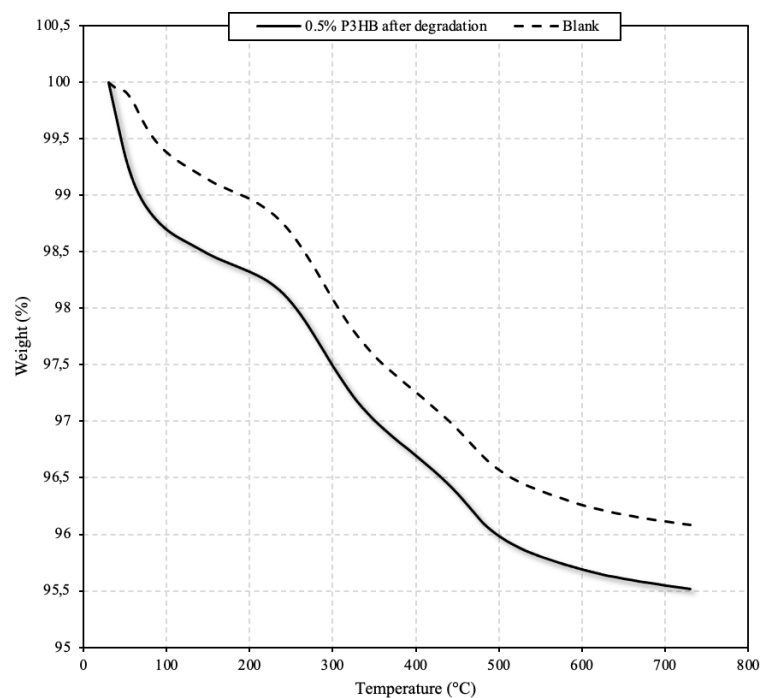


Figure 48: Weight loss of contaminated cambisol soil with addition of 0.5 % P3HB as a function of temperature.

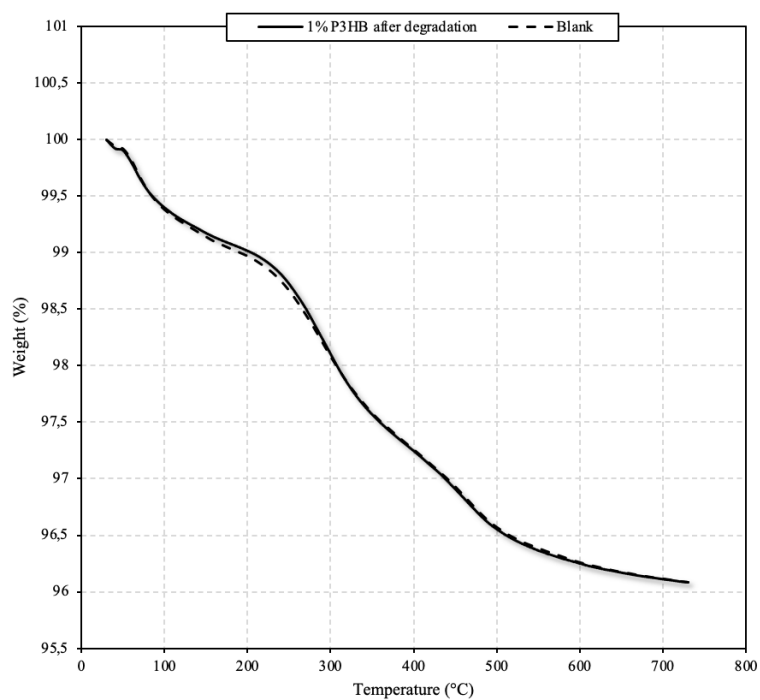


Figure 49: Weight loss of contaminated cambisol soil with addition of 1% P3HB as a function of temperature.

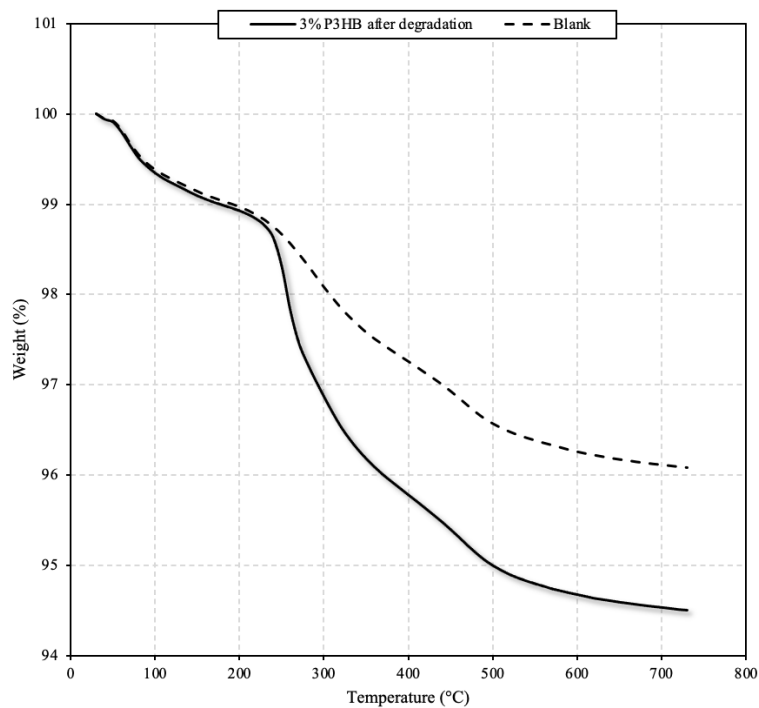


Figure 50: Weight loss of contaminated cambisol soil with addition of 3% P3HB as a function of temperature.

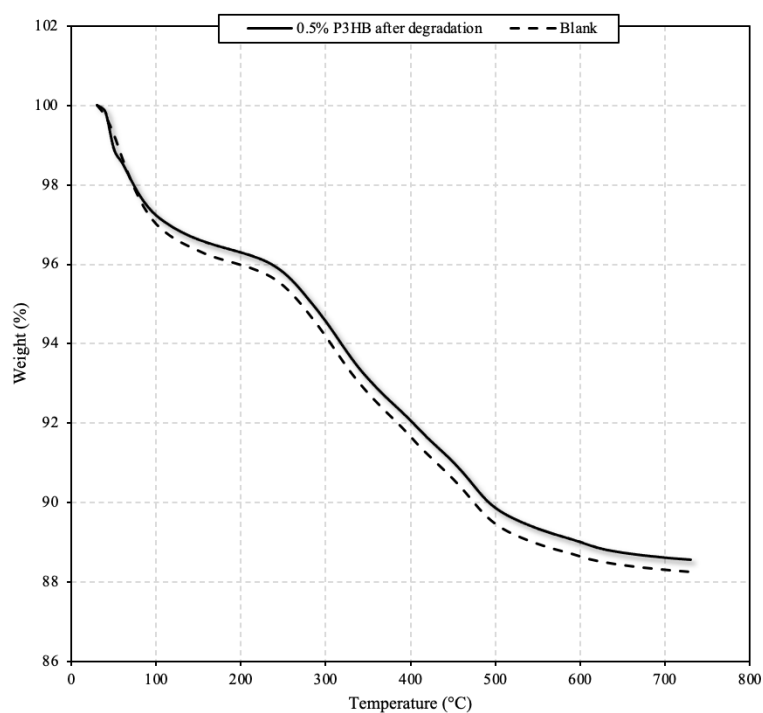


Figure 51: Weight loss of contaminated chernozem soil with addition of 0.5% P3HB as a function of temperature.

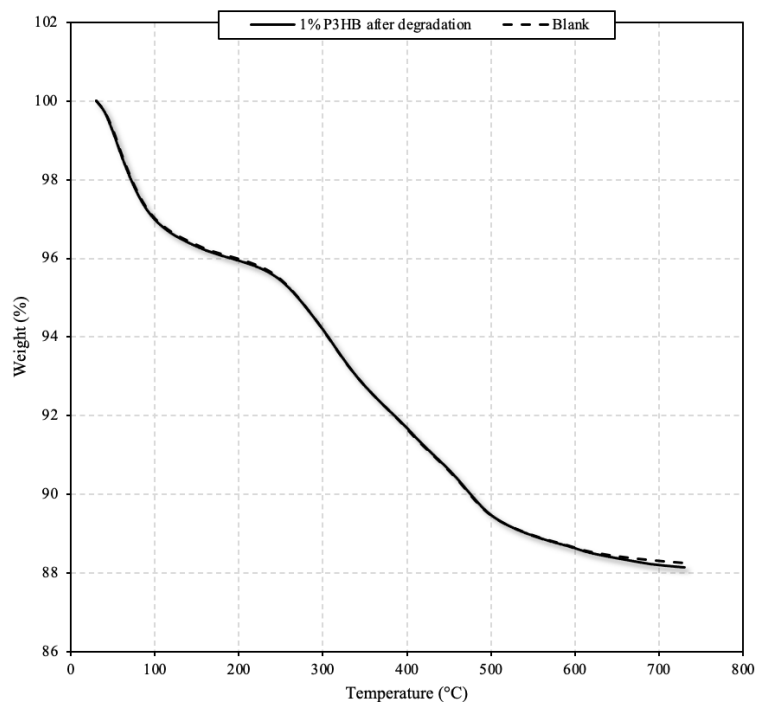


Figure 52: Weight loss of contaminated chernozem soil with addition of 1% P3HB as a function of temperature.

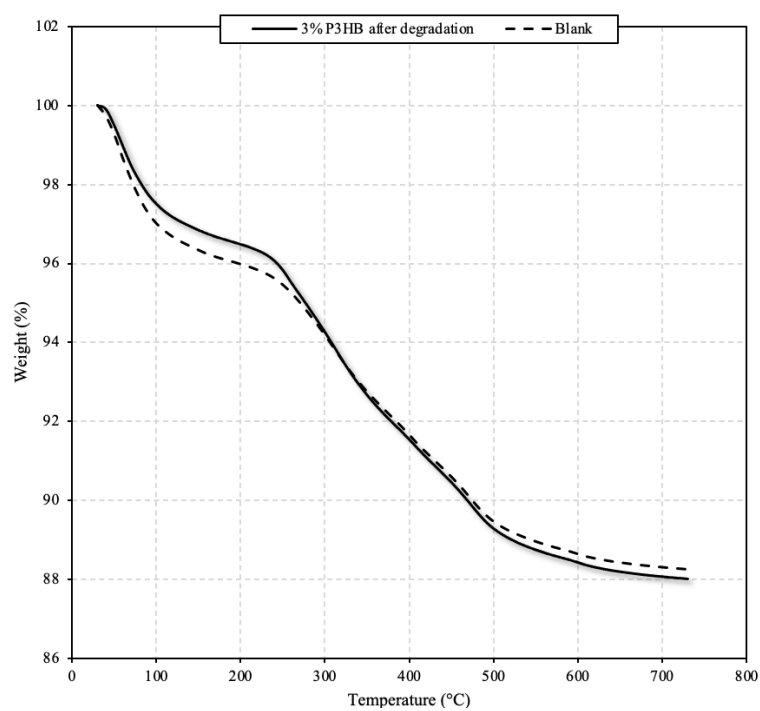


Figure 53: Weight loss of contaminated chernozem soil with addition of 3% P3HB as a function of temperature.

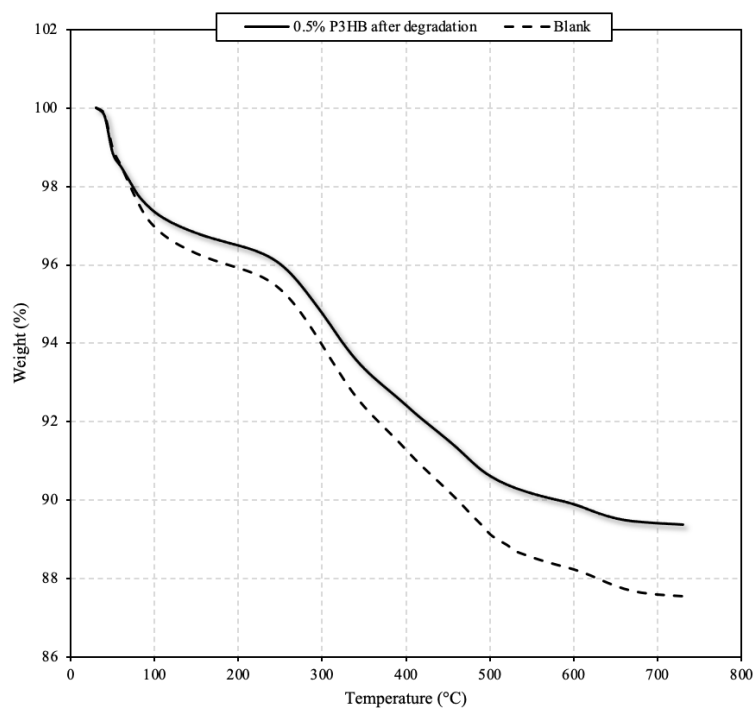


Figure 54: Weight loss of contaminated phaeozem soil with addition of 0.5% P3HB as a function of temperature.

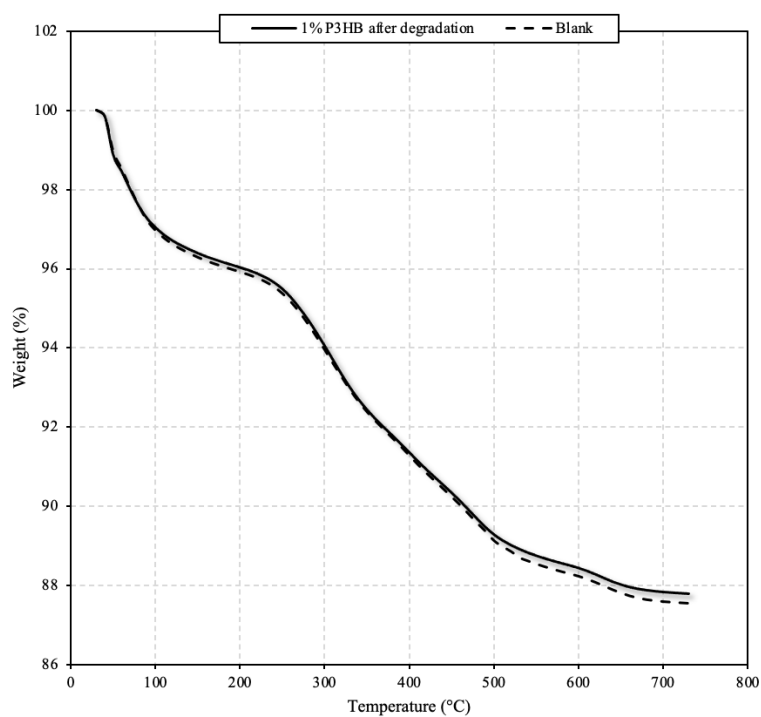


Figure 55: Weight loss of contaminated phaeozem soil with addition of 1% P3HB as a function of temperature.

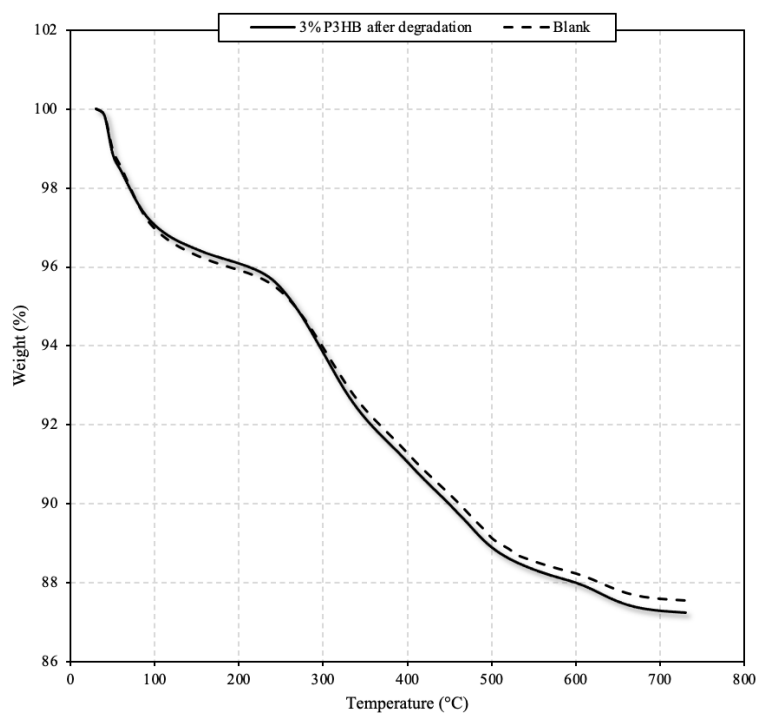


Figure 56: Weight loss of contaminated phaeozem soil with addition of 3% P3HB as a function of temperature.

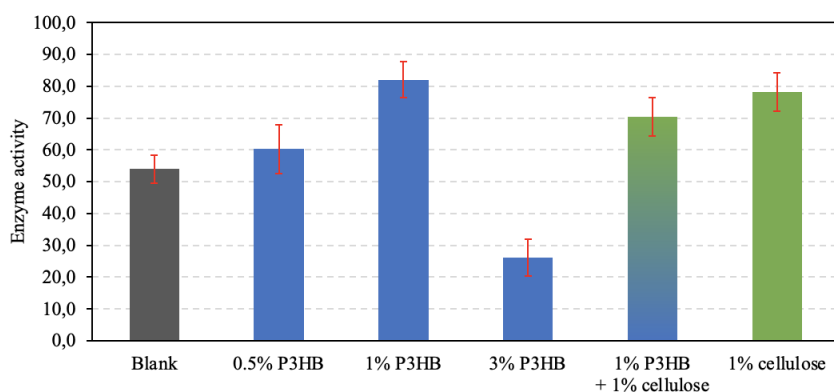


Figure 57: Phosphatase activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for phaeozem soil samples with addition of P3HB and cellulose.

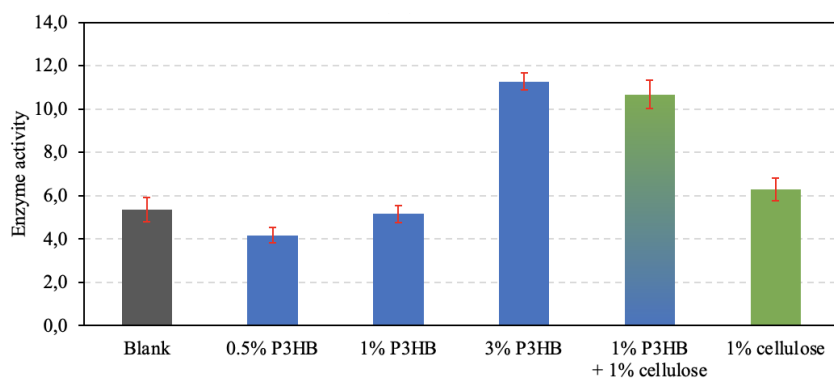


Figure 58: NAG activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for phaeozem soil samples with addition of P3HB and cellulose.

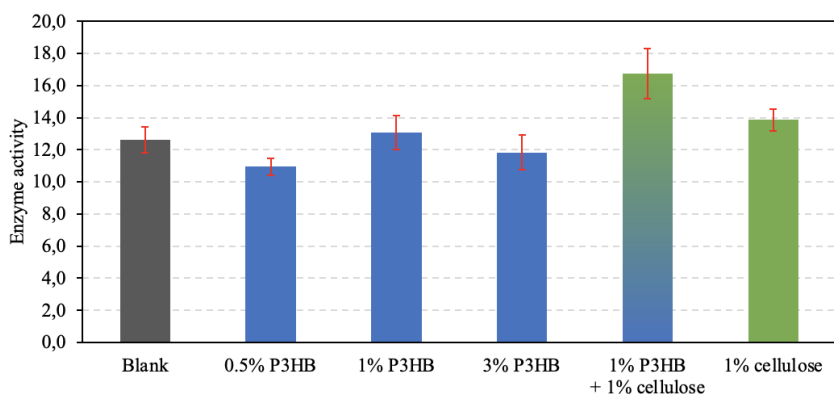


Figure 59: Arylsulfatase activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for phaeozem soil samples with addition of P3HB and cellulose.

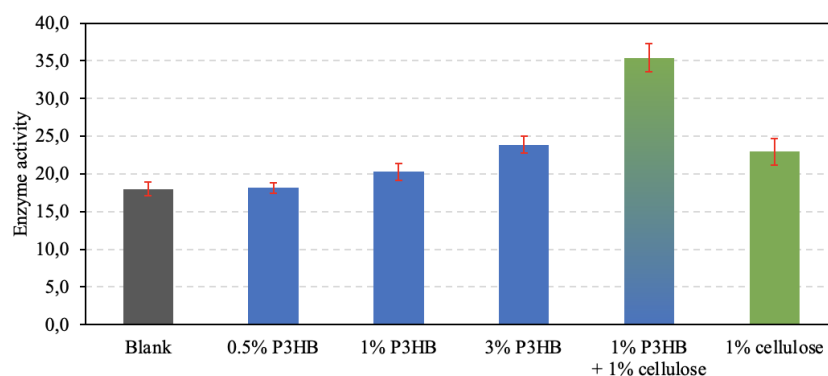


Figure 60: Urease activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for phaeozem soil samples with addition of P3HB and cellulose.

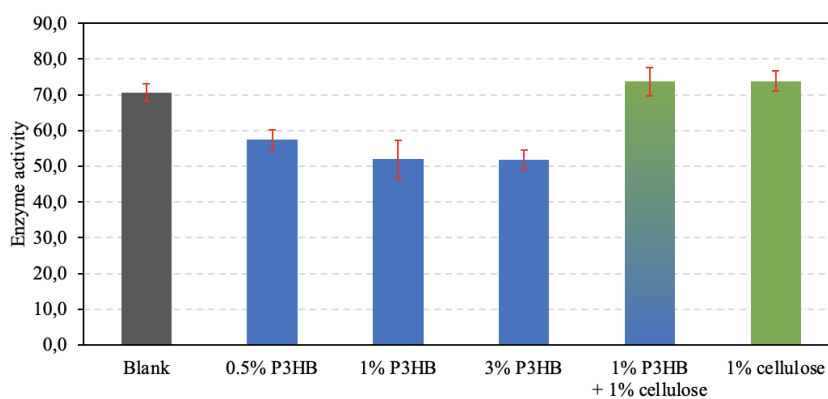


Figure 61: Glucosidase activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for chernozem soil samples with addition of P3HB and cellulose.

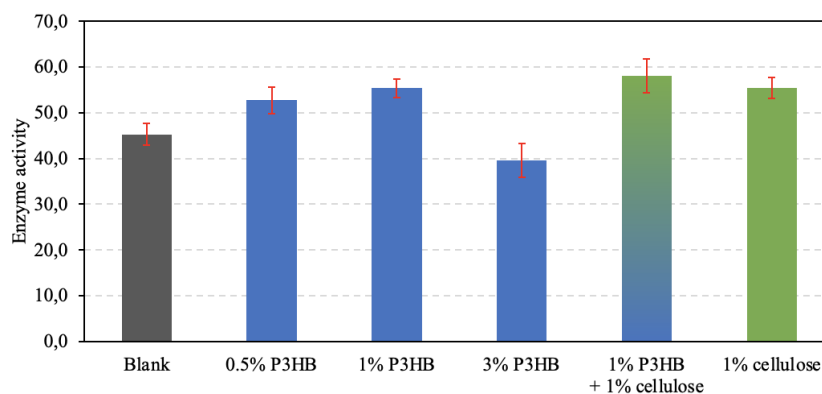


Figure 62: Phosphatase activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for chernozem soil samples with addition of P3HB and cellulose.

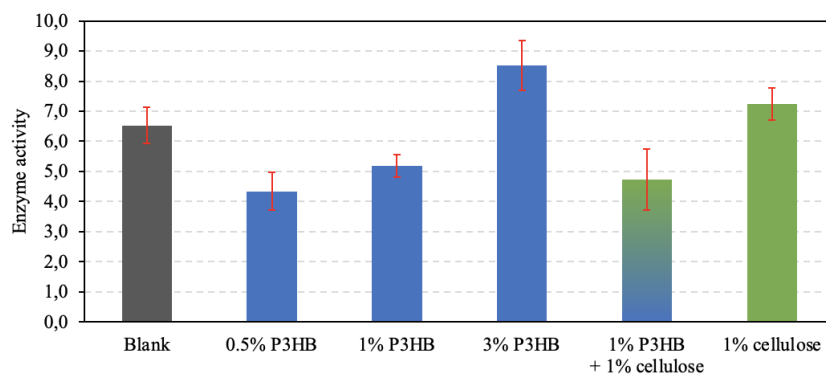


Figure 63: NAG activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for chernozem soil samples with addition of P3HB and cellulose.

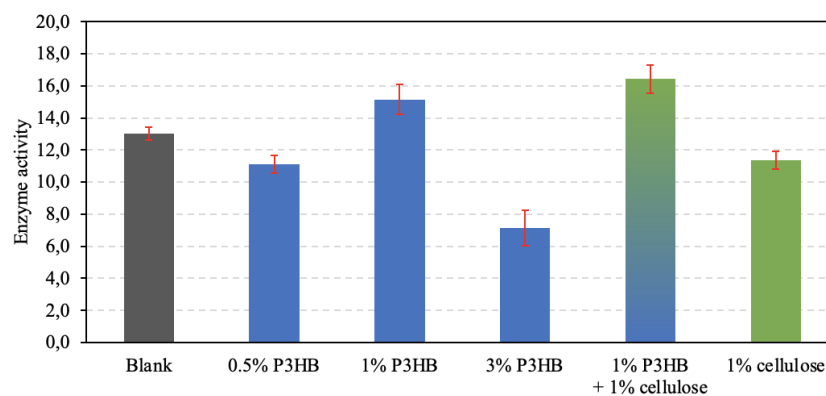


Figure 64: Arylsulfatase activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for chernozem soil samples with addition of P3HB and cellulose.

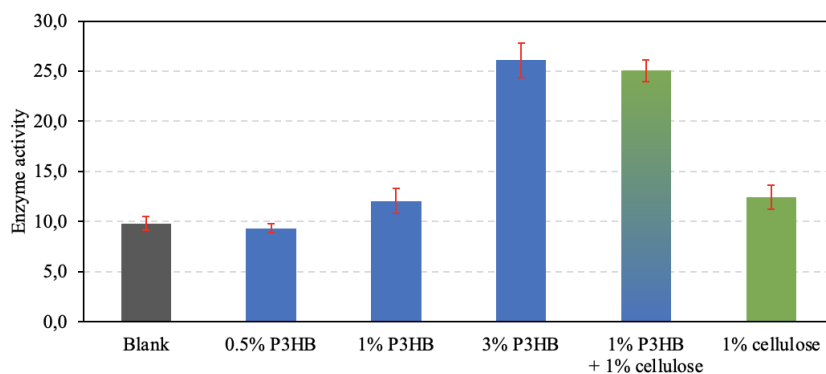


Figure 65: Urease activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for chernozem soil samples with addition of P3HB and cellulose.

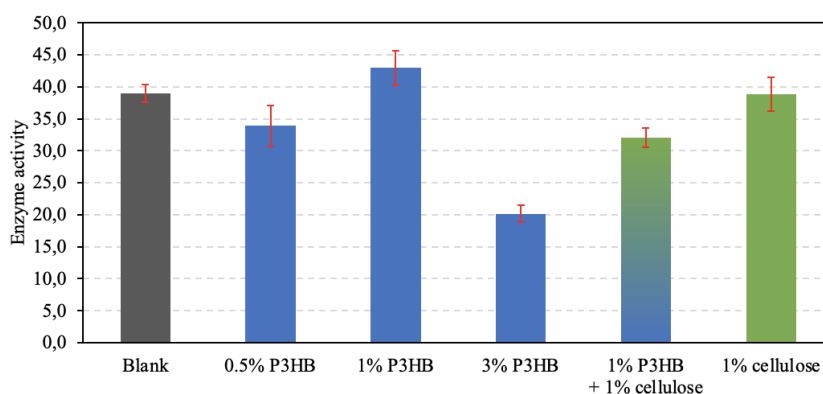


Figure 66: Glucosidase activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for cambisol soil samples with addition of P3HB and cellulose.

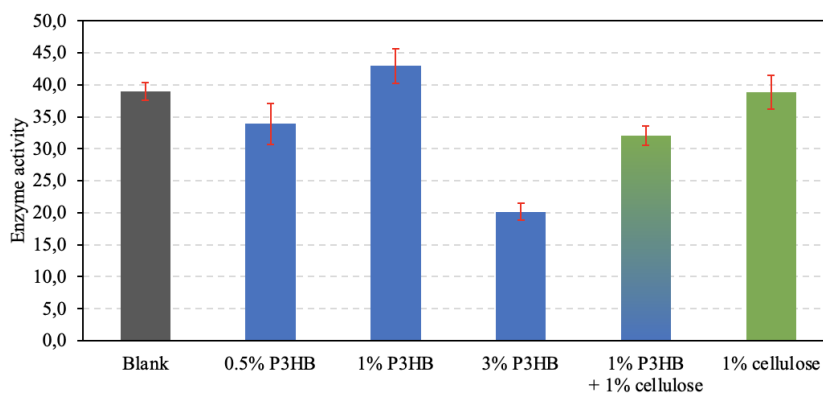


Figure 67: Phosphatase activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for cambisol soil samples with addition of P3HB and cellulose.

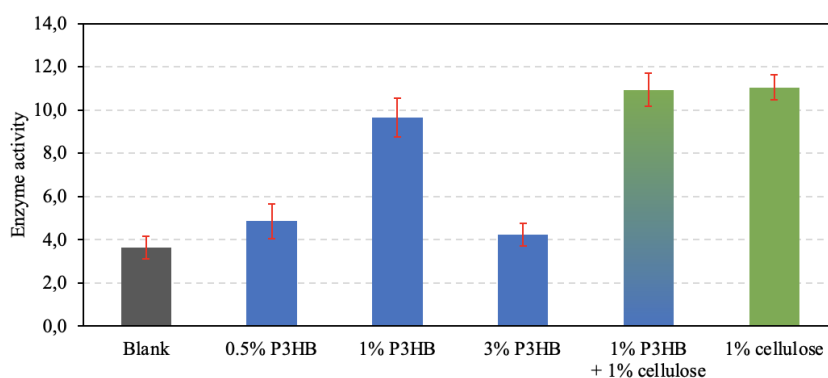


Figure 68: NAG activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for cambisol soil samples with addition of P3HB and cellulose.

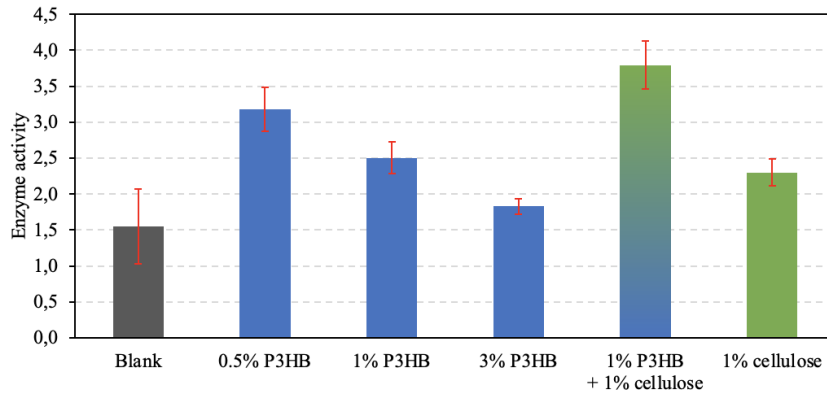


Figure 69: Arylsulfatase activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for cambisol soil samples with addition of P3HB and cellulose.

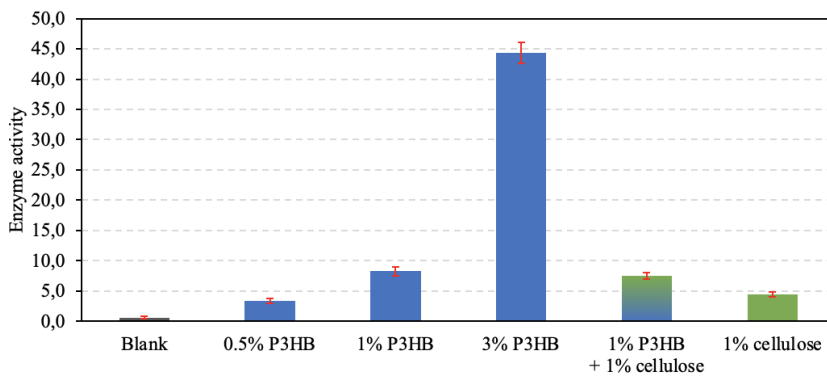


Figure 70: Urease activity (in $\mu\text{g} \cdot \text{g}^{-1} \cdot \text{h}^{-1}$) for cambisol soil samples with addition of P3HB and cellulose.