

Online Resource

Agronomic Efficiency of Phosphorus Fertilisers Recovered from Milk Processing Waste

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Supplementary Table S1. Product distribution following pyrolysis of MFS as a function of various temperature settings.

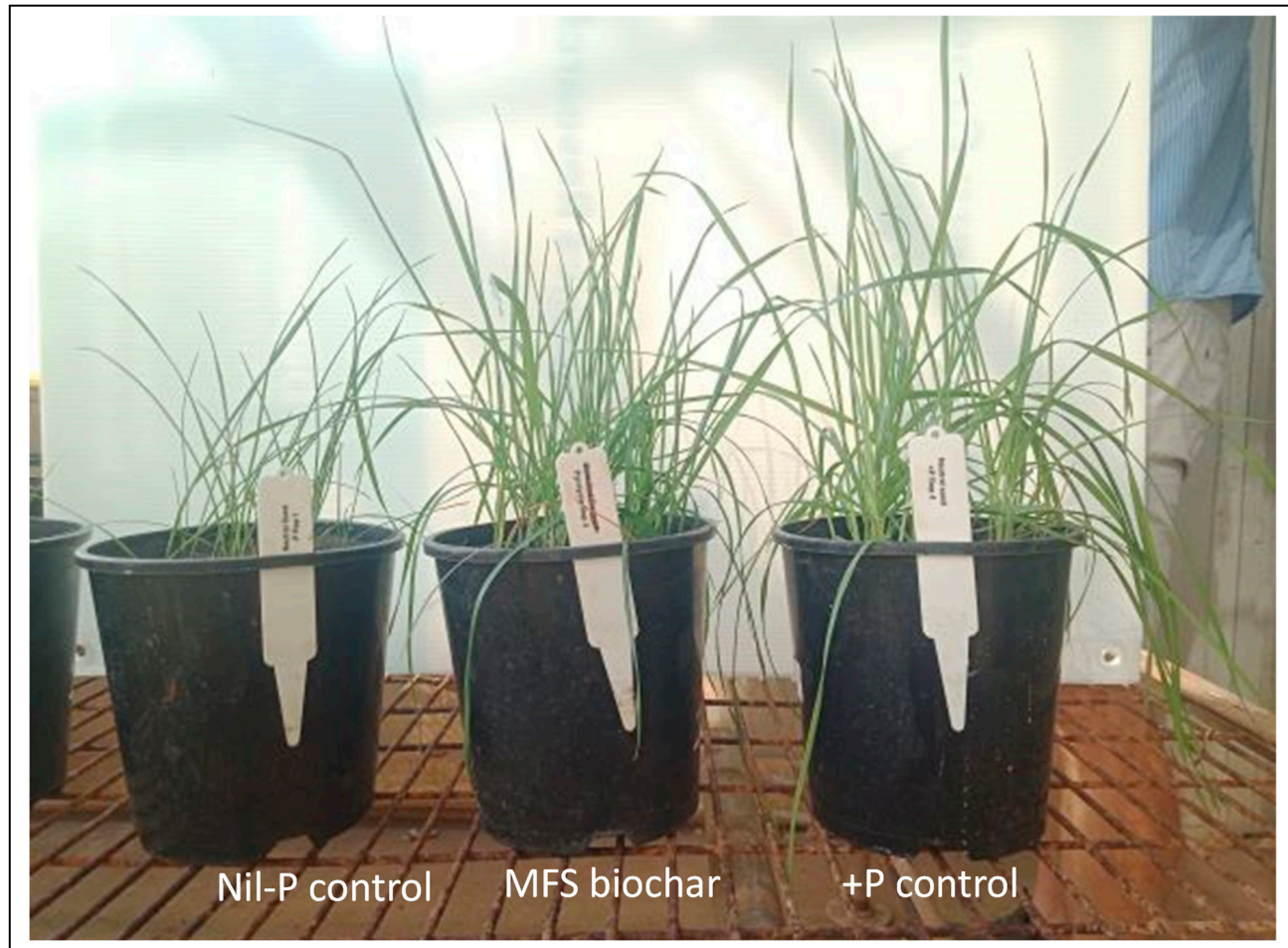
Pyrolysis temperature	Pyrolysis distribution products		
	Biochar	Condensable liquid	Non-condensable gas
450°C	23.57 (0.73)	69.73 (2.22)	6.70 (1.76)
550°C	21.39 (0.69)	64.71 (0.49)	13.89 (1.18)
650°C	21.04 (0.67)	66.35 (1.50)	13.56 (0.83)

SEM is presented in parenthesis (n = 4)

Supplementary Table S2. Recovery yields of elements in biochars produced at varying temperatures.

Element	Recovery yields (%)		
	450 °C	550 °C	650 °C
Carbon	15.68	14.68	14.29
Nitrogen	29.92	27.41	24.21
Calcium	96.02	88.89	85.91
Magnesium	90.53	87.29	79.10
Potassium	90.01	84.68	79.21
Sodium	90.32	84.79	79.11
Sulphur	10.84	6.10	5.13
Phosphorus	98.32	95.34	87.90
Zinc	64.07	72.31	75.88
Manganese	95.57	84.60	77.96
Iron	68.22	79.98	72.43
Copper	63.29	43.15	32.61
Boron	22.67	20.98	20.26
Silicon	23.31	22.62	29.06
Aluminium	91.82	85.88	78.51

Recovery based on composition of starting material



Supplementary Figure S1. Medium term P-limiting bioassay with ryegrass in Arenosol soil, a) nil P control, b) + MFS biochar and c) + P control (K_2HPO_4).