Accepted Manuscript

Remediation of an acidic mine spoil: Miscanthus biochar and lime amendment affects metal availability, plant growth, and soil enzyme activity

Jeffrey M. Novak, James A. Ippolito, Thomas F. Ducey, Donald W. Watts, Kurt A. Spokas, Kristin M. Trippe, Gilbert C. Sigua, Mark G. Johnson

PII: S0045-6535(18)30756-2

DOI: 10.1016/j.chemosphere.2018.04.107

Reference: CHEM 21255

To appear in: ECSN

Received Date: 1 November 2017

Revised Date: 9 March 2018

Accepted Date: 17 April 2018

Please cite this article as: Novak, J.M., Ippolito, J.A., Ducey, T.F., Watts, D.W., Spokas, K.A., Trippe, K.M., Sigua, G.C., Johnson, M.G., Remediation of an acidic mine spoil: Miscanthus biochar and lime amendment affects metal availability, plant growth, and soil enzyme activity, Chemosphere (2018), doi: 10.1016/j.chemosphere.2018.04.107.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



魙

1	Remediation of an acidic mine spoil: miscanthus biochar and lime amendment affects metal
2	availability, plant growth, and soil enzyme activity
3	
4	
5	Jeffrey M. Novak*, James A. Ippolito, Thomas F. Ducey, Donald W. Watts, Kurt A. Spokas, Kristin
6	M. Trippe, Gilbert C. Sigua, and Mark G. Johnson
7	
8	J.M. Novak, T.F. Ducey, D.W. Watts, G.C. Sigua, Coastal Plain Soil, Water and Plant Research
9	Center, USDA-ARS, 2611 West Lucas Street, Florence, SC 29501; M.G. Johnson, National Health
10	and Environmental Effects Research Laboratory, USEPA, 200 SW 35 th St., Corvallis, OR 97333,
11	J.A. Ippolito, Department of Soil and Crop Sciences, C006 Plant Sciences Building, Colorado
12	State University, Fort Collins, CO 80523-1170; K.M. Trippe, National Forage Seed Production
13	Research Center, USDA-ARS, 3450 SW Campus Way, Corvallis, OR 97331; K.A. Spokas, Soil and
14	Water Management Research Unit, USDA-ARS, 1991 Buford Circle, University of Minnesota, St.
15	Paul, MN 55108-6030.
16	
17	*Corresponding author (<u>Jeff.Novak@ars.usda.gov</u>).
18	
19	Abbreviations: DOC, dissolved organic carbon
20	
21	
22	
23	Key terms: Mine spoils, biochar, enzyme activity, lime, extractable metals
24	
25	Submitted to: Chemosphere on November 1, 2017.
26	
27	Resubmitted to Chemosphere on January 19, 2018.
28	De nearthreithed to Champenham an March 0, 2010
29	Re-resubmitted to Chemosphere on March 9, 2018.
30	
31	
52 22	
22 24	
54 25	
36	
30	
38	
50	

Download English Version:

https://daneshyari.com/en/article/8851171

Download Persian Version:

https://daneshyari.com/article/8851171

Daneshyari.com