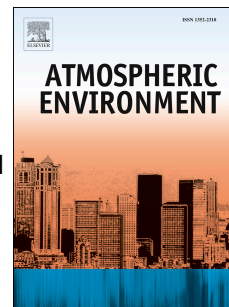


Accepted Manuscript

Dust-associated microbiomes from dryland wheat fields differ with tillage practice and biosolids application

Daniel C. Schlatter, William F. Schillinger, Andy I. Bary, Brenton Sharratt, Timothy C. Paulitz



PII: S1352-2310(18)30261-9

DOI: [10.1016/j.atmosenv.2018.04.030](https://doi.org/10.1016/j.atmosenv.2018.04.030)

Reference: AEA 15963

To appear in: *Atmospheric Environment*

Received Date: 16 October 2017

Revised Date: 17 April 2018

Accepted Date: 19 April 2018

Please cite this article as: Schlatter, D.C., Schillinger, W.F., Bary, A.I., Sharratt, B., Paulitz, T.C., Dust-associated microbiomes from dryland wheat fields differ with tillage practice and biosolids application, *Atmospheric Environment* (2018), doi: 10.1016/j.atmosenv.2018.04.030.

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.

1 Dust-associated Microbiomes from Dryland Wheat Fields Differ with Tillage Practice and
2 Biosolids Application

3

4 Daniel C. Schlatter¹, William F. Schillinger², Andy I. Bary³, Brenton Sharratt⁴ and Timothy C.
5 Paulitz¹

6 ¹ USDA-ARS, Wheat Health, Genetics and Quality Research Unit, Pullman, WA 99164

7 ² Department of Crop and Soil Sciences, Washington State University, Pullman, WA 99164

8 ³ Washington State University, Puyallup Research and Extension Center, Puyallup, WA 98371

9 ⁴ USDA-ARS, Northwest Sustainable Agroecosystems Research Unit, Pullman, WA 99164.

10

11 Corresponding Author: Timothy Paulitz (timothy.paulitz@ars.usda.gov)

12

13 **Highlights:**

14 -Microbial communities in dust from wheat fields treated with biosolids vs synthetic fertilizer
15 were different.

16 -Microbial communities in dust were different when conservation tillage (undercutter) was used
17 vs conventional tillage (tandem disk).

18 -Clostridiaceae and Enterobacteriaceae, human gut-associated bacteria from biosolids, were
19 extremely rare, but Clostridiaceae was significantly enriched in biosolids treatments.

20

21 **Abstract**

Download English Version:

<https://daneshyari.com/en/article/8863715>

Download Persian Version:

<https://daneshyari.com/article/8863715>

[Daneshyari.com](https://daneshyari.com)