

## Utilization of biochar and Trichoderma harzianum to promote growth of shallot and remediate lead-contaminated soil

<b>Title</b>	Utilization of biochar and Trichoderma harzianum to promote growth of shallot and remediate lead-contaminated soil
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<b>Abstract</b>	<p>This study aimed to determine the effect of biochar and Trichoderma harzianum toward lead removal in soil, lead absorption, lead content in plant tissue also growth and yield of shallot cultivated on lead-contaminated soil. The experimental design used was a completely factorial randomized block design consisting of 2 factors. The first factor was corn cobs biochar which was applied 1 week after basic fertilizer treatment and consisted of 4 levels, namely B0: without biochar, B1: 2.5 t ha<sup>-1</sup>, B2: 5 t ha<sup>-1</sup>, and B3: 10 t ha<sup>-1</sup>. The second factor was the dosage of liquid of Trichoderma harzianum, namely TR0: without T.harzianum, TR1: 10 mL L<sup>-1</sup>, and TR2: 20 mL L<sup>-1</sup>, which was applied three times at 14, 28 and 42 days after planting. Data were analyzed using the F test and continued with DMRT (Duncan Multiple Range Test) at P= 0.05 level. The results showed that the application of 5 t biochar ha<sup>-1</sup> was able to remove lead and decreased lead uptake in plants. Application of T. harzianum could remove and decrease absorption in plant tissue biochar was not able to increase the growth of shallot while T. harzianum increased the number of leaves and the number of tubers.</p>
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