

Phytoremediation of cadmium-contaminated soil using terrestrial kale (*Ipomoea reptans* Poir) and corncob biochar

Title	Phytoremediation of cadmium-contaminated soil using terrestrial kale (<i>Ipomoea reptans</i> Poir) and corncob biochar
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Abstract	<p>This study aimed to examine the potential of terrestrial kale (<i>Ipomoea reptans</i> Poir) combined with corncob biochar for phytoremediation of cadmium-contaminated soil. The experiment design was a completely randomized block design with two factors. The first factor was the population density of <i>Ipomoea reptans</i> (0, 2, and 4 plants/polybag). The second factor was the dose of corncob biochar (0, 5, and 10 t corncob biochar/ha). The variables observed were plant height, leaf number, leaf area, chlorophyll content, wet shoot weight, dry shoot weight, wet root weight, dry root weight, effectiveness of plant in Cd absorption and removal efficiency of Cd. The results showed that <i>Ipomoea reptans</i> could adsorb 73.59% of Cd without application of corncob biochar. <i>Ipomoea reptans</i> planted with a population density of 4 plants/polybag reduced Cd content in the soil by 57.70%. Application of 10 t corncob biochar/ha reduced Cd content in the soil by 43.42%. There was an interaction between <i>Ipomoea reptans</i> planted with a population density of 4 plants/polybag with the application of 10 t corncob biochar that reduced Cd content in the soil by 62.42%.</p>
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