

RESEARCH ARTICLE

Influence of lead on biochemicals and proline contents of *Vigna unguiculata* (L.) Walp

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SUMMARY

Among heavy metals, lead is an element that is easily accumulated in soil and sediments. The level of lead found in plants is often correlated with the level present in the environment. Cowpea [*Vigna unguiculata* (L.) Walp.], a member of Fabaceae, it is an annual multi-purpose grain legume plants suitable in a variety of cropping systems. The present study on ecophysiological effect of lead is undertaken to analyse the influence of lead on biochemicals and proline contents of cowpea [*Vigna unguiculata* (L.) Walp.]. In this study, Co -1 was considered to be more tolerant than other varieties tested. The lead treatment up to 10mg kg⁻¹ soil concentration was, however, beneficial for the overall growth parameters. From those treatments under lead values were increased at 10mg kg⁻¹ lead treatment. The uptake and accumulation of lead in cowpea plants increased with increased of lead level in the soil under field / pot culture experiments. From 25 -200mg kg⁻¹ biochemical contents were decreased (except proline).

Key Words : Influence, Biochemicals, Proline, *Vigna unguiculata*

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