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
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**The Effect of Compaction on Urease Enzyme Activity, Carbon Dioxide
Evaluation and Nitrogen Mineralisation**

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Abstract: The effects of compaction on urease enzyme activity, carbon dioxide evaluation and nitrogen mineralisation of urea-treated and untreated soils were investigated. Soils were compacted at compaction levels of 0 kgcm⁻², 2 kgcm⁻² and 4 kgcm⁻² and incubated for 28 days. The changes in urease enzyme activity, CO₂ evaluation and nitrogen mineralization were determined during incubation periods. Urease enzyme activity was decreased significantly (P<0.05) in all samples, but it was observed that there was a negative effect of compaction on urease enzyme activity and CO₂ evaluation in urea-treated soils. Depending on incubation periods, urea-treated soils had 5 times more NH₄⁺-N and 4 times more NO₃⁻-N than untreated soils. Furthermore, compaction induced nitrification in both groups (P<0.05).

Key Words: Compaction, urease enzyme activity, carbon dioxide evaluation, nitrogen mineralisation

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