

## Effect of Graded Levels of Detoxified *Jatropha curcas* on the Performance Characteristics of Cockerel Birds

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**Abstract :** Abstract— Four (4) difference methods were employed to detoxify *Jatropha curcas*, they were physical method (it include soaking and sun drying) Chemical (the use of methylated sprit, hexane and methane). Biological (the use of *Aspergillus niger* and then sundry for 7days and then *Bacillus lichiformis*) and Combined method (the combination of chemical and biological methods). Phobol ester analysis was carried out after the detoxification methods and it was found that the combined method is better off ( $P < 0.05$ ). Detoxified *Jatropha* from each of this methods was sundry and grinded for easy inclusion into poultry feed, detoxified *jatropha* was included at 0%, 0.5%, 1%, 2%, 3%, 4%, and 5% but the combined method was increased up to 7% because the birds were able to tolerate it, the 0% was the control experiment. 405 day old broiler chicks was used to test the effect of detoxified *Jatropha curcas* on their performance, there are 5birds per treatment and there are 3 replicates, the experiment lasted for 8weeks, highest number of mortality was obtained in physical method, birds in chemical method tolerated up to 3% *Jatropha curcas*, biological method is better, as birds there were comfortable at 5% but the best of them is combined method the birds did very well at 7% as there were less mortality and highest weight gain was achieved here ( $P < 0.05$ ) and it was recommended.

**Keywords :** phobol ester, inclusion level, tolerance level, *Jatropha curcas*

**Conference Title :** ICABBBE 2014 : International Conference on Agricultural, Biotechnology, Biological and Biosystems Engineering

**Conference Location :** Kyoto, Japan

**Conference Dates :** November 13-14, 2014