

Effect of Palm Bunch Ash and Neem (*Azadirachta indica* A. Juss) Leaf Powder on Termite Infestation in Groundnut Field

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Abstract : As one of the major pests of field crops, termites attack groundnut at all stages of its development, especially during prolonged dry spell. Effect of palm bunch ash and neem (*Azadirachta indica* A. Juss) leaf powder on termite infestation in groundnut field in Owerri, Nigeria was investigated in this study. The field trial was carried out in 2016 at the Teaching and Research Farm of the Federal University of Technology, Owerri, Nigeria. The experiment was laid out in a 3x3 Factorial fitted into a Randomized Complete Block Design (RCBD) with three replications. The treatments include three rates of palm bunch ash at 0.0 (control), 1.0 and 2.0 tons/ha and three rates of neem leaf powder at 0.0 (control), 1.0, 2.0 tons/ha respectively. Data were collected on percentage emergence, termite incidence and termite severity. These were subjected to analysis of variance (ANOVA), and means were separated using least significant difference at 5% level of probability. The result shows that there were no significant ($P = 0.05$) differences in percentage emergence amongst treatment means due to palm bunch ash and neem leaf powder applications. Contrarily, palm bunch ash at 2.0 tons/ha recorded the least termite incidence especially at twelve weeks after planting (12WAP) with a value of 22.20% while control plot maintained highest values at 6WAP (48.70%) and 12WAP (48.30%) respectively. Also palm bunch ash at 2.0 tons/ha depressed termite severity more than other treatments especially at 2 and 4 WAP (0.56) respectively. Control plots on the other hand consistently maintained highest termite severity throughout the trial with the highest value at 2 and 12WAP (1.56). Conclusively, palm bunch ash exhibited highest depressive action against termite on groundnut especially at higher application value (2.0 tons/ha).

Keywords : groundnut, incidence, neem, palm, severity, termites

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