Research Article Open Acces

worker termites. e e ect of Kosso (Milletia ferruginea) seed extracts on soldier termite were gave equal mortality percentage to the control check. e toxicity e ect of pyrethrum ower water extract showed 97.5% mortality on soldier and 100% on worker termites (Table 1).

Data analysis

Analysis of Variance (ANOVA) was conducted using Statistical Analysis So ware [5] compared treatment e ects and mean comparisons were carried out using Duncan's Multiple Range Test (DMRT).

Results and Discussion

ere was highly signi cant di erencet (P<0.0001) among the di erent treatments a er 24 hours. Among botanicals Tobacco (Nicotiana tabacum) leaves water extract and Birbira (Milletia ferruginea) seed extract caused statistically comparable mortality rate to the Standard check Chlorpyrifos. e two botanicals Milletia ferruginea and Nicotiana tabacum a er 24 hours showed 100% mortality on both soldier and worker Macrotermes termites. e toxic e ect of both Endod (Phytolacca dadecandra) leaves water extract and Pyrethrum E-185 (Chrysanthemum sp.) ower water extract also showed that relatively high toxic e ect as an average (>91%) on both soldier and worker termites compared to Neem (Azadirachta indica) leave water extract, Kosso (Hagenia abyssinica) seed water extract and Bisana seed (Croton macrostachs) seed water extracts which showed low toxic e ect less than (45%). However, all treatments a er 24 hours showed toxic e ect as compared to the control (Table 1).

e mortality rate termites treated with Bisana (Croton macrostachs) seed, Neem (Azadirachta indica) seed and Kosso (Hagenia abyssinica) seed showed that less than 48% a er 48 hours and no signi cant di erences were observed from with the control. Pyrethrum E-185 (Chrysanthemum sp.) ower and Endod (Phytolacca dadecandra) leaves extracts were showed highly signi cant di erent form the control where as the Endod leave extracts showed 100% mortality on worker and soldier termites (Table 1).

A er 72 hours the toxicity of pyrethrum ower water extract showed 97.5% mortality on soldier and 100% on worker termites. Neem (Azadirachta indica) seed water extract indicated 90% mortality on soldier and 95% on worker termites (Table 1) while non against

endod water extract showed good potential for snail control (100%) within 48 hours [12].

Among all treatments Croton macrostachs seed water extract indicated the least mortality percentage followed by Hagenia abyssinica seed water extract on both worker and soldier termites. Jambere et al. [13] reported that the e ect of di erent materials on insects may depend on several factors such as chemical composition and species susceptibility.

Conclusion and Recommendation

e result of laboratory experiment showed that botanicals could control termites. Based on results, Nicotiana tabacum) leave water extract and Milletia ferruginea seed extract showed higher mortality percentage (100%) and highly signi cant di erences a er 24 hours on both soldier and worker termites. Endod (Phytolacca dadecandra) leave extracts also showed 100% mortality e ect on both soldier and worker termites observed a er 48 hours and these were highly signi cant di erences from Neem (Azadirachta indica) leave water extract, Kosso (Hagenia abyssinica) seed water extract, Pyrethrum (Chrysanthemum sp.) and Bisana (Croton macrostachs) seed water extracts.

e e ects of both Neem (Azadirachta indica) leave water extract and Pyrethrum (Chrysanthemum sp.) showed 92.25 and 98.75% mortality rate as an average on both soldier and worker termites. But Bisana seed (Croton macrostachs) showed the lowest mortality