

ABSTRACT

The present study was carried out to address an important issue of wood damage by termites, a serious problem for wood utilization and also as an attempt to search out some traditional plants material as the promising source for the control of termites to replace the inorganic and synthetic chemical termiticides, injurious to humans and the environment. For this purpose five ethnobotanically important local plants *Ocimum tenuiflorum* L. (Tulsi), *Cistanche tubulosa* (Schrenk) Hook.f., *Azadirachta indica* A. Juss. (Neem), *Melia azedarach* L., *Salvia splendens* Sellow ex Roem.& Schultes (Sage) were selected and explored for the termiticidal activity of their crude extracts in water and organic solvents (chloroform, methanol & petroleum ether). The blocks of poplar wood untreated and treated by crude extracts were used in termite choice and no-choice termite feeding experiments in the fields of Changa Manga Plantation. In field, by mean visual rating and mean wood loss and termite mortality in forced feeding test in laboratory, the termiticidal activity of crude extracts of selected plants was assessed. The results indicated that among the aqueous extracts only of *Ocimum tenuiflorum* L. (Tulsi) showed moderate termiticidal activity while the organic extracts of almost all the plants showed termiticidal activity. On the whole *Ocimum tenuiflorum* L.(Tulsi) emerged as most potent plant against all the termites species especially *Microtermes obesi* Holmgren and *Odontotermes obesus* (Rambur), identified in the study area.