



Evaluation of Plant Extractives for Termite and other Pest Management in Buildings (OLP-302)

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Keeping in view of pesticidal toxicity, environmental contamination and health aspects; botanical insecticides are excellent alternatives for pest management in buildings. Plants are excellent source of organic chemicals- Rotenoids, Terpenoids, Pyrethroids, Steroids, Polyacetylenes, unsaturated isobutylamides and alkaloids etc. These phytochemicals may act as toxic, repellent, and behavior modifier to pests. In the present investigation, herbal crude extractives were prepared in the laboratory using locally available plants having pesticidal properties such as:

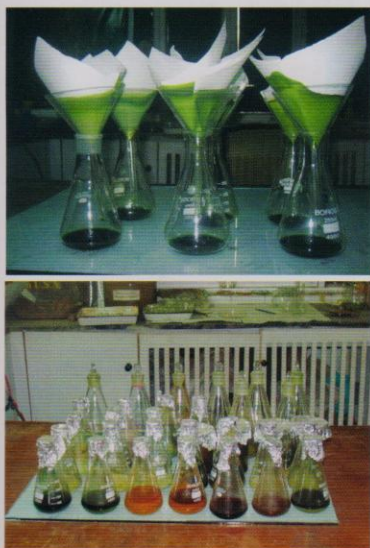


Photo 24-25: Preparation stages of herbal extractives in the laboratory

S. cumini, *C. reticulate*, *N. indicum*, *A. marnelus*, *H. rosasinemis*, *Ptrysterephorus* (F), *L. canara*, *M. koiginii*, *C. occidentalis* and *C. occidentalis* etc. The extractives were prepared in four solvents - P. Ether, Acetone, Ethanol, and Methanol. (Photo 24-25).

Finally, prepared extractives were studied against *Microcerotermes besoni* species of termites for their effectiveness as termiticide and results were compared with untreated control with similar environmental conditions. (Fig. 8)

Some of the plant extractives have shown excellent mortality against termites. Acetone extract of seed of *S. cumini* has shown 90%± 6.32 S.D.; acetone extract of leaves of *M.koiginii* 96.6% ± 5.16 S.D., ethanol extract 100%, methanol extract 90% ± 6.32 S.D.; Leaves extract of *L.kamara* in acetone has shown termite mortality 96.6% ±5.16 S.D., petroleum ether extract 100% and seed extract of *C. occidentalis* in methanol has shown 100% termite mortality, whereas in control experiments termite mortality was observed less than 20%. The project is completed.

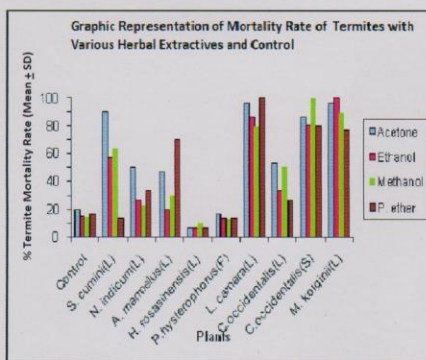


Fig.8: Graphic representation of results