STUDIES ON THE USE OF SOME ANTI-FERTILITY PLANT EXTRACTS IN THE CONTROL OF SOME RODENT PESTS

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ABSTRACT

The present work deals with evaluating the anti-fertility effects of some locally available plants on the house mouse (*Mus musculus*), as a prelude for using them for the control of this mouse. The extracts of each of the Bitter apple, *Citrullus colocynthis*; Egyptian riverhemp, *Sesbania sesban*; Hopbush, *Dodonaea viscosa*; Cinnamon, *Cinnamomum verum*, as well as a mixture of *C. colocynthis* and *S. sesban* were tested with both sexes of albino mice as well as male commensal house mice.

C. colocynthis extract has proved to have anti-fertility effects on males. However, it caused the death of treated mice 14 days after the start of treatment. It was, therefore, not tested with albino female mice and commensal male ones. *S. sesban* extract showed anti-fertility effects in males, and contragestive effects in treated females. *D. viscosa* extract proved to have anti-fertility effects in males, but no contraceptive or contragestive effects on females. *C. verum* extract proved to have a great abortifacient effect on treated females. When *C. colocynthis* and *S. sesban* extracts were used together, they have antagonized the anti-fertility effects of each other.

Plant extracts that proved to have anti-fertility effects were offered to commensal male mice in the form of bait formulations through non-choice feeding tests. *S. sesban* and *D. viscosa* extracts had the same anti-fertility effects on such males.

Results of free-choice feeding tests have indicated that *C. verum* bait formulation was most accepted by commensal male mice, followed by *S. sesban* bait formulation, then plain food, and finally *D. viscosa* bait formulation.

It is recommended that *S. sesban*, *D. viscose*, and *C. verum* extracts be used in the control of commensal house mice in the frame of integrated pest management programs.

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