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Title: Effect of Bruchid Beetles (Burchidius Arabicus Decelle) Infestation on the Germination of Acacia tortilis (Forssk.) Hayne) Seeds

Author: M. Al Jabr Ahmed

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Abstract: The role of bruchid beetle infestation on seed germination of Acacia tortilis (Forssk.) Hayne) Mimosaceae under different incubation temperatures and degrees of scarification was studied under controlled conditions. Results indicate that seed germination was highest (96%) in scarified seeds at 25-35ºC incubation temperature, whereas, it was only 28% in intact seeds. Seeds infected by bruchid beetles with one or two holes did not germinate regardless of different incubation temperatures. X-ray results of A. tortilis seeds showed substantial consumption of endosperm and embryonic portions by the bruchid beetles resulting in one or two holes in the infected seeds curtailing seed germination. A unique method of identifying seed viability of A. tortilis by X-ray studies is reported.