EFFECTIVENESS OF GAMMA IRRADIATION ON TROGODERMA GRANARIUM EVERTS

BY

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Approval Sheet

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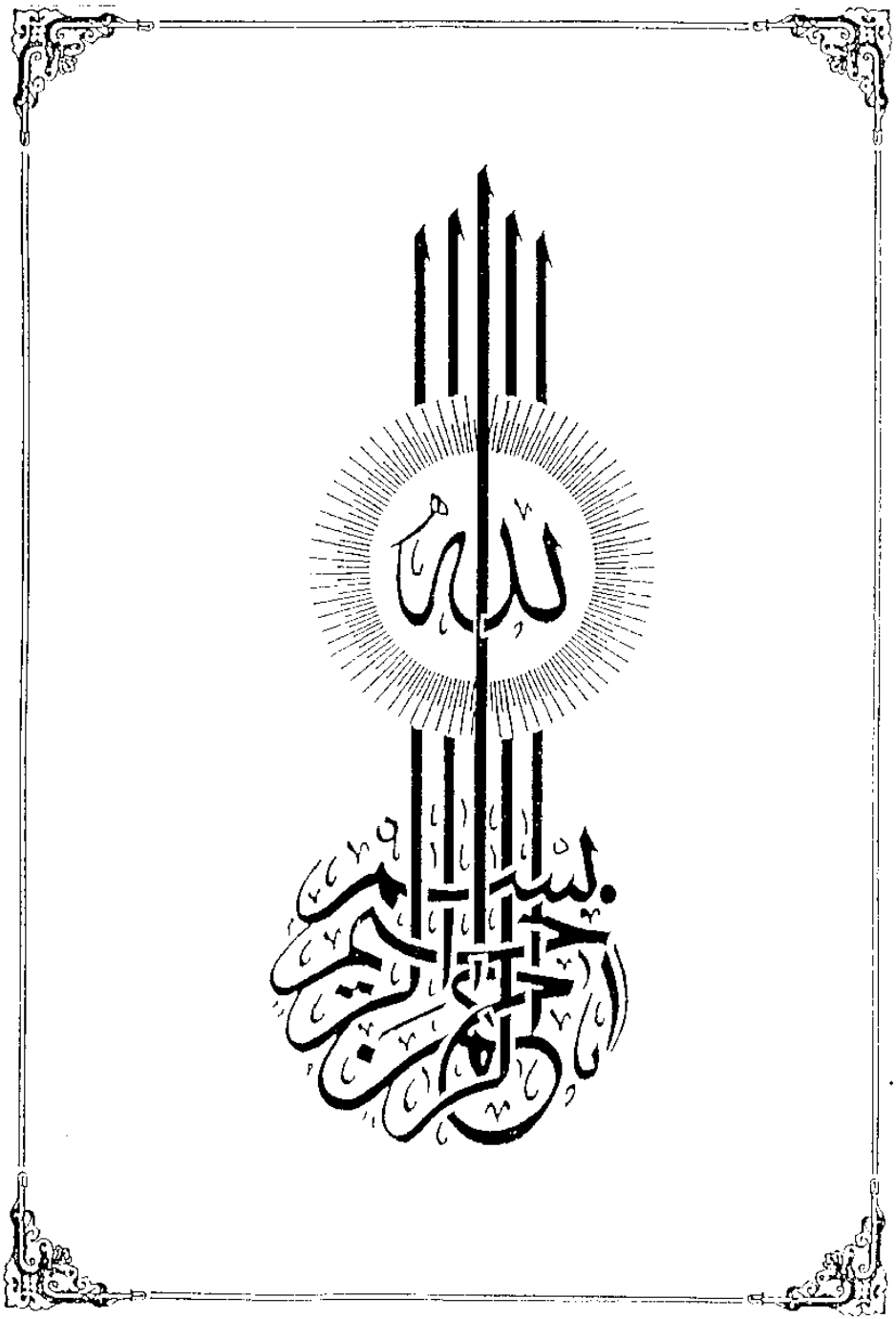

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4- Effect of gamma irradiation on male's mating ability

Longevity, fecundity and mating ability of males irradiated as larvae with substerilizing doses were reduced, while these irradiated as pupae or adults were similar to the control.

There is no recovery in male fertility when males treated as larvae, pupae or adults with substerilizing or sterilizing doses.

5- Effect of gamma irradiation on the different developmental stages of T. granarium infested certain packages.

800 Gy was the most effective dosage for killing the different stages of the Khapra beetles within one month.

Plastic sacs was sufficient to prevent reinfestation of insects than linen sacs through the storage period (6 months).

6- Testes ultrastructure of sterilized males

Ultrastructure of the testicular follicles in untreated males of the Khapra beetles showed them to be somewhat typical to many coleopteran species.

Following irradiation, with sterilizing dose (200 Gy), many cellular contents and organelles were disrupted. Also, thickness of cell membranes, fewer number of cysts, vacuoles and malformed spermatozoa were presented.

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