

Title Effect of gamma irradiation on pupal stage of *Ephestia calidella* (Guenée)
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Citation Journal of Stored Products Research, Volume 42, Issue 4, 2006, Pages 457-467
Keywords *Ephestia calidella*; Gamma irradiation; Pupal stage; Sterility

Abstract

Mature pupae of *Ephestia calidella* (Guenée) were irradiated at doses of 200–1000 Gy. Variations in the percentage of adult emergence and percentage of malformed adults were used as criteria to evaluate the radiation effects. A dose of 1000 Gy prevented the emergence of both sexes. Females and males were sterilized with a dose of 350 and 400 Gy, respectively. Adult longevity and mating ability varied with regard to the dose. Males irradiated with sub-sterile doses (100, 150, and 200 Gy) were more sexually competitive with normal males than those irradiated with the sterilizing dose (400 Gy).