

CONTROL OF THE DERMESTID BEETLE *DERMESTES MACULATUS*
DE GEER WITH CONTROLLED ATMOSPHERES

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The leather or hide beetle *Dermestes maculatus* is one of the most important pests of dried products of animal origin as well as on leather, furs or other materials. Museums fear the potential of this pest to destroy insect collections, mummies and other valuable goods. Also the long larval hairs break off easily and can cause severe allergic effects.

Various hypoxic Controlled Atmospheres were tested under laboratory conditions against all stages of *D. maculatus* at 25°C and 30°C /75 % r.h.. Using an atmosphere of pure nitrogen or pure carbon dioxide, respectively, complete control of all stages could be achieved within 48 h. The same effect was achieved with an atmosphere consisting of 98 % N₂ and 2 % O₂.

With 40 % CO₂, 44 % N₂ and 16 % O₂ or 60 % CO₂ in air, an exposure time of 96 h controlled all stages except the pupae at 30°C.