



**Journal of Pesticide Science**  
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ONLINE ISSN : 1349-0923

PRINT ISSN : 1348-589X

**Journal of Pesticide Science**

Vol. 32 (2007) , No. 3 pp.235-242

[\[PDF \(340K\)\]](#) [\[References\]](#)

## **Rootstock control of fruit dieldrin concentration in grafted cucumber (*Cucumis sativus*)**

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(Received: December 7, 2006)

(Accepted for publication: February 26, 2007)

### **Abstract:**

We examined the effect of *Cucurbita* sp. rootstock on dieldrin concentration in grafted cucumber (*Cucumis sativus* L.) fruits grown in two types of contaminated soils by pot experiment. The two soils consisted of an Andosol and a Brown Lowland soil and contained 319 and 89 µg dieldrin/kg on a dry weight basis, respectively. Dieldrin concentration in cucumber fruits grafted on low-uptake rootstock (*ca.* 14–40 µg/kg on a fresh weight basis) decreased by 50–70% compared with those grafted on high-uptake rootstock, for each case of two scion cultivars used. Dieldrin concentration in grafted cucumber fruits basically depended on the content in the aerial part, and not on the dieldrin distribution or the water content in the fruits. Selecting low-uptake rootstock is a promising practical technique to reduce dieldrin concentration in cucumber fruits grown in contaminated fields.

### **Keywords:**

dieldrin, cucumber, *Cucurbita* sp., grafting

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To cite this article:

doi:10.1584/jpestics.G06-49

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[View "Advance Publication" version \(June 27, 2007\).](#)

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