



Fig. 5. Dosage sterility lines for apholate, tepa, metepa, hempa and hemel shown by hemel resistant strain of *M. d. nebulosa*.

hempa and hemel respectively but was more or less as susceptible to apholate as the normal laboratory strain. The HR strain did not show any significant tolerance to apholate but it was 3.3, 2.5 and 9.1 times resistant to tepa, metepa and hemel while the PR strain registered 4.6, 2.4 and 8.7 fold increase in resistance to tepa, metepa and hempa.

Since nothing is known about the mechanism of resistance to chemosterilants it is very difficult with the present data to explain such results and can conclude by saying that it may be possible that a selected strain selects individuals for other sterilitant also.

#### Summary

The cross resistance characteristics was studied

in apholate, tepa, metepa, hempa and hemel resistant strains of *Musca domestica nebulosa* by incorporating the candidate chemosterilant in the food of adults. The apholate resistant strain showed 2.6 times tolerance to hemel but was as susceptible to tepa, metepa and hempa as the laboratory strain. Another strain resistant to tepa developed considerable tolerance to metepa, hempa and hemel but remained susceptible to apholate. Similarly metepa resistant strain acquired 3.6, 3.4 and 6.5 times tolerance to tepa, hempa and hemel but none to apholate. The strain resistant to hempa developed 3.3, 2.5 and 9.1 times tolerance to tepa, metepa and hemel respectively but remained susceptible to apholate. Hemel resistant strain was 4.6, 2.4 and 8.7 times tolerant to tepa, metepa and hempa respectively and also showed some tolerance to apholate.

**Acknowledgments:** The author is extremely grateful to Prof. Nawab H. Khan for critically going through the manuscript and to Prof. S. M. Alam for providing necessary facilities in the department.

#### References

- Absa, O. R. and E. J. Hansens: *J. Econ. Ent.*, 62 (2), 334 (1969).  
Patterson, R. S., et al.: *J. Econ. Ent.*, 60 (6), 1673 (1967).

## 書 評

### 生態系と農薬

湯島健, 桐谷圭治, 金沢 純 著

(1973) 岩波書店発行

214頁 1500円

急速な発達をとげた農薬の発達過程とそのむじゅん、生物相におよぼす農薬の影響、具体例としての有機塩素系殺虫剤や有機水銀剤の作物における残留や環境汚染、野生動物さらには人類への農薬の影響について研究分野のそれぞれ異なる著者等のチームワークによりわかりやすくまとめられている。この本は現在広く問題になっている農薬の残留、環境汚染について単なる

総合抄録をしたものではない。外国におけるこれらの研究成果をとらえながらわが国における具体例を反映させ、これらの問題を一層身近かなものとして画かれていること、それぞれの項目について明快な論議や鋭い批判が適所にみられることは著者等のチームワークと努力がうかがえる。

最終項のこれからの問題についてももう少し頁をさいて著者等の具体的意見を述べてほしいところであるが選書版としての制限もあり致し方なからう。植物防疫に関する人はぜひ一読しておくべき著書であり、専門外の人でも理解し得る良き啓もう書でもある。

(斎藤哲夫)