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財団法人防虫科学研究所 京 都 大 学 內 昭和32年8月

"SCIENTIFIC INSECT CONTROL"

Bulletin of the Institute of Insect Control

Editor Sankichi TAKEI

Associate Editor Syunro UTIDA

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Published by
THE INSTITUTE OF INSECT CONTROL
Kyoto University
Kyoto, Japan

employed, in this work, was a modification of that described by Bruce. The insect used was the adults of the common housefly which have been bred in the laboratory. The materials adopted were allethrin, pyrethrins, chlordane, dieldrin, DDT, lindane, o-dichlorobenzene, and sulfoxide, and each of these was formulated in kerosene or xylene solutions. In the tests, kerosene or xylene solutions containing a given concentration of the materials were applied at a rate of 0.2cc per 20 square cm filter paper. The impregnated filter papers were kept at 28° for various time. After a given time had elapsed, about 50mg of lactose pellet was placed in the center of each paper, these papers with pellets were put into a glazed test box containing about 120 houseflies.

The criterion of repellency was based on the amount of feeding on lactose pellet put on each paper. After the exposure of 20 hours the lactose pellets were removed and weighed. The amount of feeding (mg) obtained were presented by formulae as mentiond above.

In laboratory tests it was noted that pyrethrins and allethrin were markedly more effective than the other materials. These materials prevented flies from feeding on lactose pellet for 3 days. Other chlorine compounds, except o-dichlorobenzene, gave moderate effectiveness in repelling houseflies. Although o-dichlorobenzene was tested in the work, it was less effective against houseflies.

Literature Cited

- Applewhite, K. H. & C. N. Smith: J. Econ. Entomol. 43, 353 (1950).
- 2) Bruce. W. N.: Pest Control 24, 14 (1956).
- Cole, M. M. & C. N. Smith: J. Econ. Entomol. 42, 880 (1949).
- Dethier, V. G.: "Chemical insect attractants and repellents". Blakiston, Philadelphia, p. 140 (1947).
- 5) ——: ibid. p. 201.
- 6) —: J. Econ. Entomol. 48, 235 (1955).
- Granett, P. & C. F. French: J. Econ. Entomol. 43, 41 (1950).
- 8) ---: J. Econ. Entomol. 44, 93(1951).
- Granett, P. et al.: J. Econ. Entomol. 42, 281 (1949).
- 10) ---: J. Econ. Entomol. 44, 97 (1951).
- Healy, M. J. R.: Ann. Appl. Biol. 39.
 11 (1952).
- Hough, W. S. & A. F. Mason: Spraying, dusting and fumigating of plants. MacMillan, New York, p. 96 (1951),
- 13) 佐々学・鈴木猛: "殺虫剤及び殺鼠剤"。 南山堂, 東京, p. 136 (1952).
- Shepard, H. H.: The chemistry and action of insecticides. McGraw-Hill, New York, p. 458 (1951).
- 15) Starnes, E. B. & P. Granett: J. Econ. Entomol. 46, 420 (1953).

昭和32年8月30日中朝 昭和32年8月31日発行 防虫科学 第 22 卷一 單 定価 ¥110.

生 幹 武居三吉 編集者 內田俊郎 京都市左京区北白川 京都大学農学部 発行所 財団法人 防虫科学研究所 京都市左京区吉田本町 京都大学内 (振替口座・京都5899)

印刷所 大宝印刷 株式会社 京都市南区東九条西沿本町八