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A Bibliography of Imported Fire Ants and the Chemicals and Methods Used for Their Control

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A Bibliography of Imported Fire Ants and the Chemicals and Methods Used for Their Control

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INTRODUCTION

The red and black imported fire ants, *Solenopsis invicta* Buren and *Solenopsis richteri* Forel, have invaded more than 52 million hectares of land in the southern United States since they were inadvertently introduced some 30 to 60 years ago (Lofgren et al. 1975). These ants have been variously judged as a serious economic and public-health menace, as a minor nuisance, as totally innocuous, and even as beneficial. Organized control programs have been directed against these insects for nearly two decades, first with heptachlor (1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene) or dieldrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-*endo-exo*-5,8-dimethanonaphthalene), and since 1963 with mirex (dodecachlorooctahydro-1,3,4-metheno-1*H*-cyclobuta[*cd*]pentalene). During this interim, much research has been conducted to find better control methods and to assess the impact that the ants and the techniques of control have had on the environment. A large number of scientific papers and some popular articles have been published. Because of the continuing interest in imported fire ants and their control, we have compiled a bibliography of these papers and articles.

All scientific papers concerned in any way with imported fire ants are included in this bibliography. We manually searched both the Life and the Agricultural, Food and Veterinary Sciences editions of Current Contents published by the Institute for Scientific Information, Dissertation Abstracts, the Bibliography of Agriculture, and Abstracts of Entomology. In addition, we utilized the Agricultural Research Service (ARS) Current Awareness Literature Service provided by the Lending Division, National Agricultural Library. This service is a computerized search of Biological Abstracts, Bio-Research Index, and Chemical Abstracts. We also visited the libraries of land-grant colleges and universities where we knew work had been done on imported fire ants to check theses and dissertations that might not have been included in Dissertation Abstracts. To our knowledge, all articles in popular magazines are included, but no attempt was made to include newspaper articles. All papers dealing with mirex—its residues and

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so forth—and with control of fire ants are included. Papers on ants which did not specifically deal with fire ants or with the use of mirex to control other ants, other Hymenoptera, or Isoptera were excluded. The literature search for this bibliography was completed in July 1977.

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