

RESIDUE REVIEWS

RESIDUES OF PESTICIDES AND OTHER
FOREIGN CHEMICALS IN FOODS AND FEEDS

RÜCKSTANDS-BERICHTE
RÜCKSTÄNDE VON PESTICIDEN UND ANDEREN
FREMDSTOFFEN IN NAHRUNGS- UND FUTTERMITTELN

EDITED BY

FRANCIS A. GUNTHER

RIVERSIDE

ADVISORY BOARD

MARIA E. ALESSANDRINI, ROMA · J. W. COOK, WASHINGTON
S. DALGAARD-MIKKELSEN, KØBENHAVN
SIMONE DORMAL VAN DEN BRUEL, BRUXELLES · C. L. DUNN, WILMINGTON
C. G. DURBIN, WASHINGTON · R. W. FOGLEMAN, PALO ALTO
J. C. GAGE, WELWYN · T. H. HARRIS, WASHINGTON
L. W. HAZLETON, FALLS CHURCH · G. HECHT, WUPPERTAL-ELBERFELD
H. HURTIG, OTTAWA · O. R. KLIMMER, BONN · G. K. KOHN, RICHMOND
H. F. LINSKENS, NIJMEGEN · H. MARTIN, BASEL · N. N. MELNIKOV, MOSCOW
R. MESTRES, MONTPELLIER · B. L. OSER, NEW YORK CITY
S. W. SOUCI, MÜNCHEN · R. TRUHAUT, PARIS · S. L. WIT, UTRECHT

VOLUME 2



SPRINGER-VERLAG
BERLIN · GÖTTINGEN · HEIDELBERG

1963

ISBN-13: 978-1-4615-8376-9 e-ISBN-13: 978-1-4615-8374-5
DOI: 10.1007/978-1-4615-8374-5

All rights, especially that of translation into foreign languages, reserved. It is also forbidden to reproduce this book, either whole or in part, by photomechanical means (photostat, microfilm and/or microcard) or by other procedure without written permission from Springer-Verlag.

© by Springer-Verlag OHG
Berlin · Göttingen · Heidelberg 1963
Softcover reprint of the hardcover 1st edition 1963
Library of Congress Catalog Card Number 62-18 595

Preface

Residues of pesticides and other "foreign" chemicals in foodstuffs are of concern to everyone everywhere; they are essential to food production and manufacture, yet without surveillance and intelligent control some of those that persist could at times conceivably endanger the public health.

The object of "Residue Reviews" is to provide concise, critical reviews of timely advances, philosophy, and significant areas of accomplished or needed endeavor in the total field of residues of these chemicals in foods, in feeds, and in transformed food products. These reviews are either general or specific, but properly they may lie in the domains of analytical chemistry and its methodology, biochemistry, human and animal medicine, legislation, pharmacology, physiology, regulation, and toxicology; certain affairs in the realm of food technology that are concerned specifically with pesticide and other food-additive problems are also appropriate subject matter. The justification for the preparation of any review for this book-series is that it deals with some aspect of the many real problems arising from the presence of residues of foreign chemicals in foodstuffs.

The scope of "Residue Reviews" is international. It encompasses those matters, in any country, which are involved in allowing pesticide and other plant-protecting chemicals to be used safely in producing, storing, and shipping crops. Added plant or animal pest-control chemicals or their metabolites that may persist into meat and other edible animal products (milk and milk products, eggs, etc.) are also residues and are within this scope. The so-called food additives (substances deliberately added to foods for flavor, odor, appearance, etc., as well as those inadvertently added during manufacture, packaging, distribution, storage, etc.) are also considered suitable review material.

Manuscripts are contributed by invitation, and may be in English, French, or German. Suggestions for reports on specific subjects will always be welcomed, but preliminary communication with the editor is recommended before volunteered reviews are submitted in manuscript form.

F. A. G.

Department of Entomology
University of California

Riverside, California
April 20, 1962

Table of Contents

Nematocide residues in plants. By Dr. A. L. TAYLOR	1
The determination of organophosphate pesticides and their residues by paper chromatography. By M. E. GETZ	9
La détermination de résidus d'insecticides et de fongicides par la méthode polarographique. Par Professeur P. H. MARTENS et P. NANGNIOT	26
Absorption, translocation, exudation, and metabolism of plant growth- regulating substances in relation to residues. By Dr. J. W. MITCHELL and P. J. LINDER	51
Parathion residues on leafy crops. By Dr. C. H. VAN MIDDELEM	77
The utilization of infrared and ultraviolet spectrophotometric proce- dures for assay of pesticide residues. By R. C. BLINN and Professor F. A. GUNTHER	99
Subject index	153