## GEORGIA PEST MANAGEMENT HANDBOOK

2024-2025 HOME AND GARDEN EDITION

**SPECIAL BULLETIN 48** 

## **Contributing Authors:**

**ANIMAL & DAIRY SCIENCES** 

Gary Burtle

**CROP & SOIL SCIENCE** 

Stanley Culpepper

Gary Hawkins

Patrick McCullough

Simerjeet Virk

**ENTOMOLOGY** 

Brett Blaauw

Keith Delaplane

Elmer Gray

Paul Guillebeau

Nancy Hinkle

Will Hudson

Glen Rains

Alton Sparks

Dan Suiter

Milton Taylor

FORESTRY &

NATURAL RESOURCES

Mike Mengak

**HORTICULTURE** 

Mark Czarnota

PLANT PATHOLOGY

Bhabesh Dutta

Alfredo Martinez-Espinoza

Jonathan Oliver

Harald Scherm

Iean Williams-Woodward

## **Editors:**

Victoria Dee, University of Georgia College of Agricultural and Environmental Sciences Publications Production Coordinator

Allison Johnson, University of Georgia Pesticide Safety Education Program Coordinator

Published by University of Georgia Cooperative Extension

The Georgia Pest Management Handbook: Home & Garden Edition is updated biennially. When purchasing a product based on a first-year recommendation of the Handbook, check the current product label before purchase to be sure it is still labeled for the use for which you are buying it. For pesticide products you have on hand from earlier purchases, you are allowed to use them until they are depleted without penalty under the law. Always follow label instructions before use. Contact the product's manufacturer for the most up-to-date label.

The Georgia Pest Management Handbook—2024–2025 Home & Garden Edition provides current information on selection, application, and safe use of pest control chemicals. This handbook has recommendations for pest control around homes and on pets, for pests of home garden vegetables, fruits and ornamentals, and for pests of public health interest associated with our homes. Cultural, biological, physical, and other types of control are recommended where appropriate.

Additional information on controlling insects, plant diseases, and weeds is available in bulletins and circulars published by UGA Cooperative Extension. Your county agent will provide recommendations upon request. Free publications are also available at extension.uga.edu/publications.

Pesticide recommendations are based on information on the manufacturer labels and on performance data from research and Extension trials at the University of Georgia and sister institutions. Because environmental conditions, the severity of pest pressure, and methods of application vary widely, recommendations do not imply that performance of pesticides will always be acceptable.

This publication is intended to be used only as a guide. Trade and brand names are used only for information. The University of Georgia does not guarantee nor warrant published standards on any product mentioned; nor does the use of a trade or brand name imply approval of any product to the exclusion of others which may also be suitable. Always follow the use instructions and precautions on the pesticide label. For questions, concerns, or improvement suggestions regarding the *Georgia Pest Management Handbook*, please contact your county agent.

PRINTED COPIES ARE AVAILABLE FOR \$20. Visit us online at extension.uga.edu/programs-services/integrated-pest-management/publications/handbooks.html or call (706) 542-5783 for information on how to order. Online orders can be made at ugaextensionstore.com. Delivery by UPS will occur 7–14 business days from when the order is processed. Please provide a physical address for shipping, as UPS does not deliver to P.O. boxes. Sales of books and data are considered final. Materials returned due to damage in shipping will be replaced. To download an electronic version, visit us online at ipm.uga.edu.

## **CONTENTS**

PESTICIDE EMERGENCIES	5	HOME FUNGICIDE GUIDE	73
IMPORTANT CONTACTS	7	HOUSEHOLD AND STORED PRODUCTS	
FREQUENTLY ASKED QUESTIONS	9	Household and Structural Insect Control	76
ATTENTION: PESTICIDE PRECAUTIONS	11	Household Pesticide Dilution Table	86
ABBREVIATIONS AND EQUIVALENTS	12	HUMANS	
SUBMITTING SPECIMENS FOR IDENTIFICATION: COLLECTION, PREPARATION, AND SHIPMENT	14	Public Health Insect Control Outdoors and Parasites of Humans	87
PESTICIDE SAFETY AND OTHER PESTICIDE INFORMATION		ORGANIC STRATEGIES FOR THE GARDEN AND HOME LANDSCAPE	97
Use Pesticides Safely	16	ORNAMENTALS	,
Protect Honey Bees from Pesticides	17	Insect Control for Home Flowers, Shrubs,	
Determining Pesticide Amount for Backpack		and Ground Covers	101
Sprayers (per 1,000 Square Feet)	17	Home Indoor Plant Insect Control	104
Calibrating Turfgrass Sprayers		Herbaceous Ornamentals: Home Outdoor Insect Control	105
(Gallons per 1,000 Square Feet)	19	Weed Control for Homeowners: Annual Flowers	
Hand Sprayer Calibration for Ornamentals and Turf	20	and Perennials	107
ANIMALS		Weed Control for Homeowners: Woody Ornamentals	108
Pets (Companion Animals) External Parasite Control	22	Ornamentals: Weed Response to Herbicides	111
Flea Control Products	23	Home Ornamental and Tree Disease Control	114
Honey Bee Disease and Pest Control	27	TURF	
AQUATIC ENVIRONMENTS		Home Turf Insect Control	126
Fishery Chemicals (Parasites, Piscicides,		Home Turf Disease Control	128
and Other Treatments	31	Turfgrass Weed Control for Homes	133
Aquatic Weed Control	32	Turfgrass Herbicides Commonly Found in Retail	
Response of Common Aquatic Weeds to Herbicides	36	Lawn and Garden Stores/Centers	136
Aquatic Weed Control Use Restrictions	37	Turfgrass Weed Response to Herbicides: Home Products	138
Calculating Pesticide Concentrations in Aquatic Situations	39	VEGETABLES	
HOME ORCHARD		Home Vegetable Insect Control	140
Home Orchard Disease and Pest Management		Home Vegetable Disease Control	149
Guide Preface	40	Weed Control in Home Vegetable Gardens	157
Home Apple and Pear (Pome Fruit) Disease and Insect Guide	41	VERTEBRATE PEST CONTROL	
Home Blueberry Disease and Insect Guide	47	Mammals	161
Home Bramble Disease and Insect Guide	50	Repellents for Deer, Rabbits, and Other Mammals	164
Home Bunch Grape Disease and Insect Guide	52	Reptiles, Amphibians, and Birds	165
Home Orchard Muscadine Grape Disease and Insect Guide	56		
Home Peach, Plum, and Nectarine (Stone Fruit) Disease and Insect Guide	59		
Home Strawberry Disease and Insect Guide	63		
Home Fruit Insecticide Effectiveness Chart	67		