e-GRO Alert
Volume 3, Number 6 January 2014

by Brian E. Whipker
bwhipker@ncsu.edu

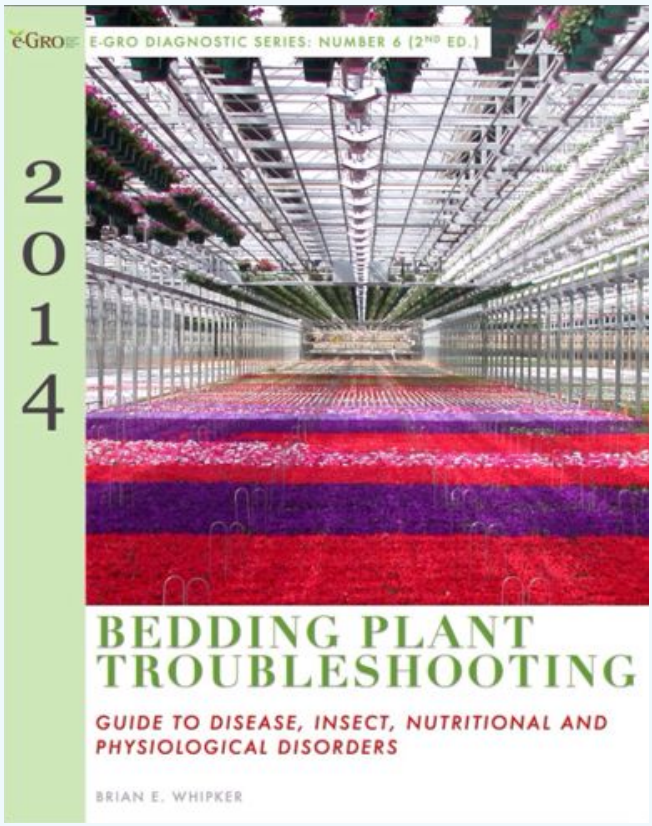
Bedding Plant Troubleshooting eBook

A new troubleshooting guide to Bedding Plant disorders has been published by North Carolina State University's Floriculture group.

American Floral Endowment
2014 Sponsor

The 2014 version of Bedding **Plant Troubleshooting: Guide to Disease, Insect, Nutritional, and Physiological Disorders** has been published on the iBookstore.

This second edition has been expanded with over 40 new diagnostic photographs and highlights a total of 177 disorders on ageratum, begonia, celosia, impatiens marigolds, salvia, snapdragons, and zinnias. The beginning of each species chapter has a quick touch index for each listed disorder. The 249 page eBook is available from the iBookstore.



Cover of the Bedding Plant Troubleshooting eBook.

e-GRO Alert

www.e-gro.org

CONTRIBUTORS

Dr. Nora Catlin
Floriculture Specialist
Cornell Cooperative Extension - Suffolk County
nora.catlin@cornell.edu

Dr. Kristin Getter
Floriculture Outreach Specialist
Michigan State University
getterk@msu.edu

Dan Gilrein
Entomology Specialist
Cornell Cooperative Extension - Suffolk County
dog1@cornell.edu

Dr. Brian Krug
Floriculture Ext. Specialist
Univ. New Hampshire
brian.krug@unh.edu

Dr. Joyce Latimer
Floriculture Extension & Research
Virginia Tech
jlatime@vt.edu

Dr. Roberto Lopez
Floriculture Extension Specialist & Research
Purdue University
rglopez@purdue.edu

Dr. Paul Thomas
Floriculture Extension & Research
University of Georgia
pathomas@uga.edu

Dr. Brian Whipker
Floriculture Extension & Research
NC State University
bwhipker@ncsu.edu

Bedding Plant Troubleshooting: Guide to Disease, Insect, Nutritional, and Physiological Disorders
(e-GRO Diagnostic Series: Number 6, 2nd edition)

System Requirements:
The book will only work on iPads version 2 or later.

Cost: $9.99
Available at: iBookstore
(search for bedding plants)

Cooperating Universities

Cornell University
Cooperative Extension
of Suffolk County

PURDUE UNIVERSITY

THE UNIVERSITY OF GEORGIA
COOPERATIVE EXTENSION
College of Agricultural and Environmental Sciences
College of Family and Consumer Sciences

NC STATE UNIVERSITY
Floriculture

VirginiaTech
Invent the Future

MICHIGAN STATE UNIVERSITY

UNIVERSITY of NEW HAMPSHIRE
Cooperative Extension

In cooperation with our local and state greenhouse organizations

Indiana FLOWER GROWERS Association

Metropolitan Detroit Flower Growers Association

Virginia Flower Growers Association Since 1954

lifga

NC FLOWER POWER

NEW HAMPSHIRE Plant Growers QUALITY GARDEN CENTERS & GROWERS

Example Page Screenshots

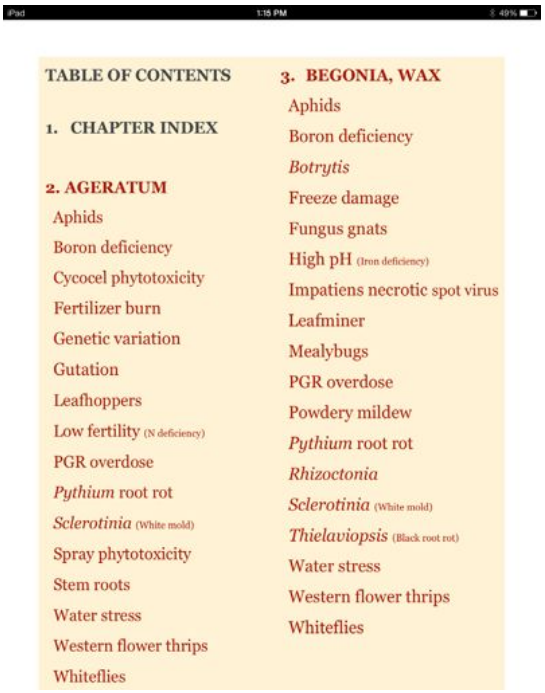
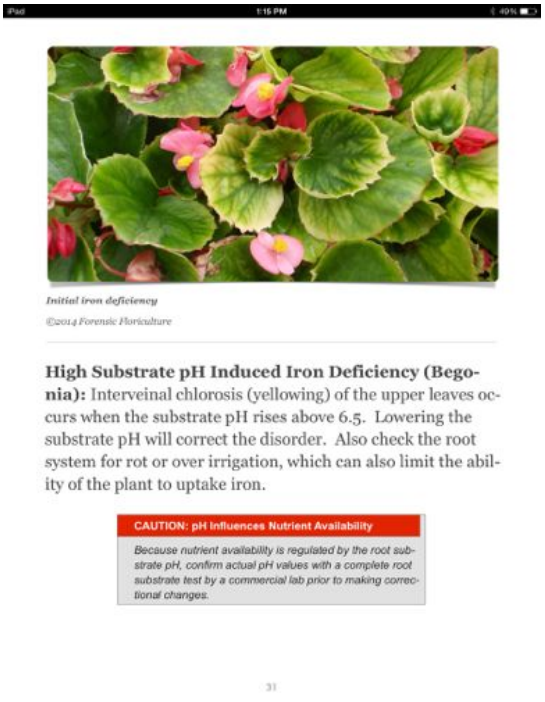


TABLE OF CONTENTS

1. CHAPTER INDEX

2. AGERATUM
- Aphids
- Boron deficiency
- Cycocel phytotoxicity
- Fertilizer burn
- Genetic variation
- Gutation
- Leafhoppers
- Low fertility (N deficiency)
- PGR overdose
- *Pythium* root rot
- *Sclerotinia* (White mold)
- Spray phytotoxicity
- Stem roots
- Water stress
- Western flower thrips
- Whiteflies

3. BEGONIA, WAX
- Aphids
- Boron deficiency
- *Botrytis*
- Freeze damage
- Fungus gnats
- High pH (Iron deficiency)
- Impatiens necrotic spot virus
- Leafminer
- Mealybugs
- PGR overdose
- Powdery mildew
- *Pythium* root rot
- *Rhizoctonia*
- *Sclerotinia* (White mold)
- *Thielaviopsis* (Black root rot)
- Water stress
- Western flower thrips
- Whiteflies



Initial iron deficiency

©2014 Forensic Floriculture

High Substrate pH Induced Iron Deficiency (Begonia): Interveinal chlorosis (yellowing) of the upper leaves occurs when the substrate pH rises above 6.5. Lowering the substrate pH will correct the disorder. Also check the root system for rot or over irrigation, which can also limit the ability of the plant to uptake iron.

CAUTION: pH Influences Nutrient Availability

Because nutrient availability is regulated by the root substrate pH, confirm actual pH values with a complete root substrate test by a commercial lab prior to making corrections changes.