

# KEY PESTS AND DISEASES

## Box Tree Moth (*Cydalima perspectalis*)

No native caterpillars feed on boxwood - REPORT IT!



Ferenc Lakatos - Sopron

## Boxwood Leafminer (*Monarthralpalpus flavus*)

Small orange fly that emerges annually in spring.



Joe Boggs - OSU

## Boxwood Blight (*Calonectria* spp.)

Fungal disease that causes defoliation, cankers, dieback



Rutgers PDL

## Volutella Blight (*Pseudonectria buxi*)

Common fungal disease - Orange spores under leaf



Rutgers PDL

## Root Rot Diseases (*Phytophthora* spp.)

Oomycete disease - attacks root hairs, persistent in soil



Elizabeth Bush - VA Tech

## Winter Injury - Environmental damage -

Physiological - caused by cold, dry, windy - winter conditions



Rutgers PDL

# WANTED REPORT THIS PEST BOX TREE MOTH



Ferenc Lakatos - Sopron

# REWARD \$11M NJ INDUSTRY

twaller@njaes.rutgers.edu  
(856) 451-2800 ext.1  
Cumberland County RCE Agent

william.errickson@njaes.rutgers.edu  
(732) 431-7260, ext. 7261  
Monmouth County RCE Agent

sarah.katzenbach@ag.nj.gov  
(609) 406-6939  
Division of Plant Industry - NJDA

REFERENCE GUIDE TO COMMON

# BOXWOOD Pests and Diseases



**R** RUTGERS UNIVERSITY  
Agriculture and Natural Resources  
New Jersey Agricultural Experiment Station

IN COOPERATION WITH  
NEW JERSEY DEPARTMENT OF AGRICULTURE  
PLANT INDUSTRY DIVISION

# BOXWOOD BLIGHT

(*Calonectria* spp.)

FUNGUS

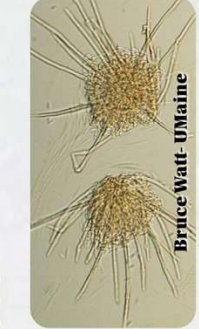


Rutgers - PDL



WHITE / FLUFFY | ORANGE PUSTULES

Tim Walter - RCU



Bruce Watt - UMaine

**Symptoms:** Leaf drop, necrotic lesions on leaves, dark cankers on stems. White fluffy mycelium.

**Active period:** Cool, damp periods in spring and late summer. Sticky spores are very easily spread.

**Management:** Remove diseased plants and soil (persistent sclerotia in soil). *Protective fungicides.*



**DARKSTEM/CANKERS (dropped leaves)**

Rutgers - PDL



**NECROTIC LESIONS (recent infection)**

Rutgers - PDL



**BOXWOOD BLIGHT LEAVES**

Rutgers - PDL



**BOXWOOD BLIGHT LEAF/DROP**

Rutgers - PDL

# VOLUTELLA BLIGHT

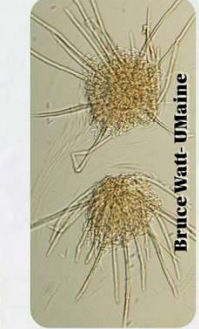
(*Pseudonectria buxi*)

FUNGUS



ORANGE PUSTULES

Tim Walter - RCU



Bruce Watt - UMaine

**Symptoms:** Straw color leaves - attached, orange sporodochia after prolonged warm/damp periods.

**Active period:** Spring through fall. High humidity.

**Management:** Remove leaf litter, trim diseased branches below infected transition zone (canker). Promote airflow. *Regular protective fungicides.*



**SALMON-PINK/ORANGE FUNGAL STRUCTURES**

Rutgers - PDL



**VOLUTELLA STEM CANKERS**

Joe Boggs - OSU



**VOLUTELLA LEAVES - STAY ATTACHED -**

Joe Boggs - OSU

Steve Rettke - RCE  
Volutella Blight of Pachysandra (Buxaceae) by related fungus

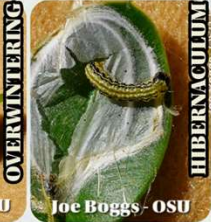
# BOX TREE MOTH

(*Cydalima perspectalis*)

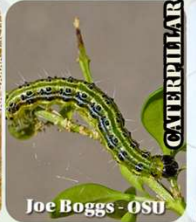
CATERPILLAR - REPORT THIS



Joe Boggs - OSU



Joe Boggs - OSU



Joe Boggs - OSU



Safian, UWH



**LEAF DAMAGE**

Joe Boggs - OSU



**PUPAE WEBBING**

USDA-APHIS



**PROTECTIVE WEBBING**

Joe Boggs - OSU



**COMPLETE DEFOLIATION**

USDA-APHIS

There are no native caterpillars that feed on boxwood. If you see caterpillars/damage on boxwood, it's likely Box Tree Moth (BTM).

**Lifecycle:** 2 - 4+ generations per year. Active spring through early fall. Eggs deposited on the underside of leaves. Caterpillars overwinter within protective silken hibernaculum structures at the center of folded leaves.

**What to look for:** Silk webbing, chewed leaves, defoliation with no leaf litter (eaten), caterpillars.

**Management: (REPORT IT FIRST)** Many products are labeled for Lepidoptera/caterpillars. General preventative applications are NOT recommended- as these will harm beneficial insects and could trigger greater pest populations.



USPEST.ORG  
BWB RISK MODEL



BOXWOOD BLIGHT  
INSIGHT GROUP



RUTGERS  
PLANT DIAGNOSTIC  
LABORATORY



VOLUTELLA  
BLIGHT



**R** STAY UP TO DATE  
PLANT & PEST  
ADVISORY



OHIO STATE  
BOX TREE MOTH



BTM  
REGULATORY



ADDITIONAL  
INFORMATION