Wisconsin Horticulture Update 2013

Disease Predictions for 2013

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Disease Predictions for 2013

Carry-Over Drought Stress

• **Cause:** Insufficient rain in 2012
• **Hosts:**
  – Anything and everything
  – Particularly evergreens
Disease Predictions for 2013

Carry-Over Drought Stress

- Management
  - Water adequately
  - Mulch appropriately
Disease Predictions for 2013
Diplodia (Sphaeropsis) Tip Blight

- **Pathogen:** *Diplodia pinea* *(Sphaeropsis sapinea)*

- **Hosts (major)**
  - *Pines:* Austrian
  - *Other pines:* red, jack, Scots, mugo

- **Hosts (minor)**
  - *Other conifers:* cedars, cypresses, firs, spruces, junipers, yews
Disease Predictions for 2013
Diplodia (Sphaeropsis) Tip Blight

• Favorable environment
  – Drought
  – Long periods of needle wetness
Disease Predictions for 2013
Diplodia (Sphaeropsis) Tip Blight

- **Control**
  - **DO NOT** plant Austrian pines
  - Prevent tree stress, particularly water stress
  - Thin branches to increase airflow
  - Prune diseased branches
  - Remove infected cones
Disease Predictions for 2013

Diplodia (Sphaeropsis) Tip Blight

• **Control**
  – *Use fungicides to prevent infections*
    • Thiophanate methyl, chlorothalonil
    • *Bud break through shoot elongation*
    • *14 day application interval*
Disease Predictions for 2013

Aster Yellows

• **Cause:** Aster yellows phytoplasma
• **Hosts**
  – Many plants in the Asteraceae
  – Many other plants in many other plant families
  – Vegetables: carrots, potatoes
• **Environmental trigger**
  – High aster leafhopper populations
Disease Predictions for 2013

Aster Yellows

• **Control**
  – *Remove infected plants*
  – *Control leafhopper vector (?)*
Disease Predictions for 2013
Tar Spot

• **Causes:** *Rhytisma americanum*  
  *Rhytisma acerinum*

• **Hosts:** Maples

• **Favorable Environment:** Cool, wet weather
Disease Predictions for 2013

Tar Spot

• Control
  – **DO NOT panic**
  – Remove diseased leaves
  – Use fungicides to prevent infections
    • Copper-containing fungicides
    • 3 applications at bud break, 1/2 expansion of leaves, full leaf expansion
Diseases Predictions for 2013

Anthracnose

• Causes
  – *Gloeosporium* spp.
  – *Collectotrichum* spp.
  – Other fungi
Diseases Predictions for 2013
Anthracnose

• **Hosts**
  – Anything and everything
  – Ash, maple, oak
  – Sycamore

• **Environmental trigger**
  – Cool, moist conditions in May/June
Diseases Predictions for 2013

**Anthracnose**

- **Control**
  - *DO NOT panic*
  - *Remove diseased leaves*
  - *Use fungicides to prevent infections*
    - *Copper-containing fungicides, chlorothalonil, mancozeb, thiophanate methyl*
    - *3 applications at bud break, 1/2 expansion of leaves, full leaf expansion*
Disease Predictions for 2013
Impatiens Downy Mildew

• **Cause:** *Plasmopara obducens*

• **Hosts**
  - *Standard garden impatiens (I. walleriana)*
  - *Balsam impatiens (I. balsamina)*
  - *Jewelweed (I. pallida, I. capensis)*
  - *New Guinea impatiens (I. hawkeri)*
    (resistant/tolerant)
Disease Predictions for 2013

Impatiens Downy Mildew

- Favorable Environment
  - Cool conditions (59 - 73°F)
  - Long leaf wetness periods (> 6 hrs)
  - High humidity
Disease Predictions for 2013
Impatiens Downy Mildew

• Control
  – Use a variety of ornamentals
  – Use New Guinea impatiens and hybrids
  – Inspect garden and balsam impatiens carefully
  – DO NOT plant impatiens right away
  – Keep plants from different sources physically separated
  – Rotate, rotate, rotate
Disease Predictions for 2013
Impatiens Downy Mildew

• **Control**
  – *Work in potentially contaminated beds last*
  – *Disinfest tools and other gardening items*
    • Commercial disinfectants
    • 10% bleach
    • 70% alcohol
  – *DO NOT overcrowd plants* (i.e., *reduce humidity*)
Disease Predictions for 2013
Impatiens Downy Mildew

• Control
  – DO NOT overhead water (i.e., limit leaf wetness periods)
  – Scout frequently
  – Obtain proper confirmation of the disease
  – Bag and discard affected plants
    • Symptomatic plants
    • Asymptomatic surrounding plants
Disease Predictions for 2013

Impatiens Downy Mildew

• Control
  – Use fungicides to prevent infections
    • mefenoxam, fluopicolide, potassium phosphite, mancozeb, pyraclostrobin + boscalid, fluoxastobin, cyazofamid, dimethomorph, fenamidone, azoxystrobin

• Alternate active ingredients

• Apply at 7 day application intervals
Disease Predictions for 2013
Where to Go for Help

Plant Disease Diagnostics Clinic
Department of Plant Pathology
University of Wisconsin-Madison
1630 Linden Drive
Madison, WI  53706-1598
(608) 262-2863
bdh@plantpath.wisc.edu
http://pddc.wisc.edu
http://hort.uwex.edu