UMass Extension Landscape Message #27 - 2004

December 10, 2004

Scouting Information by Region

Environmental Data

The following growing degree day (GDD) and precipitation data was collected for the five-week period, November 3 through December 8, 2004. Soil temperature and phenological indicators were observed on December 8, 2003. Accumulated GDDs represent the heating units above the 50° F. baseline temperature collected via our mini-computers since the beginning of the current growing season. This information is intended for use as a guide for monitoring the developmental stages of pests in your location and planning management strategies accordingly.

Region/Location	2004 GROWING DEGREE DAYS		Soil Temp *(°F at 4" depth)*	Precipitation *(1-Week Gain)*
	4-Week Gain	*Total accumulation for 2004*		
Cape Cod	25	2592	45° F	3.75"
Southeast	19	2507	50° F	5.00"
East	n/a	n/a	n/a	n/a
Central	~20	2436	35° F	5.70"
West	20	2595	38° F	5.76"
Berkshire	12	2306	39° F	4.35"

Regional Notes

Cape Cod Region - General conditions: November weather was typical for the time of year: many gray days with drizzle and temperatures in the 40's interspersed with sunny days in the 50's. **Pests/Problems:** Reports of winter moth/fall cankerworm flights started coming into the office before Thanksgiving. Towns from Sandwich to Dennis are all reporting very high numbers of moths, perhaps foretelling of defoliation to come in the spring of 2005.

Southeast Region - General conditions: Typical November weather, (sun, rain, snow, fog, drizzle), was the norm for November. Hanson received approximately 5 inches of precipitation. Killing frost came late this season, in many parts of the county, occurring in the early part of November. Korean mums are still providing some seasonal color along with the red berries of *Ilex verticillata*, *Ilex opaca* and the meserve hollies. The berries of the invasive plant, oriental bittersweet, can easily be seen now covering the canopies of many deciduous trees. **Pests/Problems:** Fall cankerworm moths and winter moths began to emerge about ten days before Thanksgiving. Many of those moths emerging early were fall cankerworm moths but beginning in late November - early December, the primary moth emerging was winter moth. The Plymouth County Extension office has received calls from all over the county about these moths. Judging by the incredible number of moths we are seeing, we believe it signals another banner year for winter moth caterpillars for spring 2005.

East Region - General Conditions: No report.

Central Region - General Conditions: No report.

West Region - General Conditions: The month of November was cool with a normal amount of precipitation until Thanksgiving. Since that time over 2.5 more inches of rain has fallen. **Pests/Problems:** All's quiet in the Pioneer Valley. Not a creature is stirring, except for meadow mice, rabbits, and deer.

Quick Links

Scouting Information
- **Regional Notes**
  - Cape Cod
  - Southeast
  - East
  - Metro West
  - Central
  - Pioneer Valley
  - Berkshire
- **Environmental Data**
- **Phenology**

Woody Ornamentals

Landscape Turf

Archived Messages

Damage so far is minimal but some browsing by deer is taking place.

Berkshire Region - General Conditions: There have been relatively mild conditions for this time of year. Today (12/8) temperature has reached 50° F. During the past 30 days, the range of temperatures has been from a high of 62° F to low of 15° F. Soil moisture is plentiful for plants going into winter. About 5 to 6 inches of snow has fallen since the beginning of November but none has persisted. **Pests/Problems:** Deer browsing has been minimal yet. Deer ticks still active and cane be picked up by humans and pets traversing grassy and shrubby areas. Strong winds have created some problems with fallen trees or broken branches.

- CAPE COD REGION - Roberta Clark, Horticulturist for Barnstable County, Barnstable.
- SOUTHEAST REGION - Deborah Swanson, Horticulturist for UMass Extension in Plymouth County, Hanson
- EAST REGION - James R. Allen, Horticulturist and Greenhouse Manager for UMass Biology Department, Boston
- CENTRAL REGION - Joann Vieira, Superintendent of Horticulture, Tower Hill Botanic Garden, Boylston.
- WESTERN REGION - Dan Gillman, Plant Pathologist, Urban Forestry Diagnostic Lab, UMass, Amherst.
- BERKSHIRE REGION - Ronald Kujawski, Nursery Specialist, UMass Extension Agriculture & Landscape Program, Amherst.

Woody Ornamentals

Insects

Caterpillars

Starting in mid-November, nighttime flights of moths began across the state. Winged male moths could be seen flying and being attracted to outdoor lighting. Wingless female moths could be found scurrying up tree trunks. Statewide, most of the initial emergence appears to have been **Fall Cankerworm**, a native caterpillar species that appears occasionally in high numbers. By Thanksgiving time, **Winter moth**, which is remarkably similar, also began to appear in the eastern regions of MA. The females of these are generally smaller than that of fall cankerworm. In general, fall cankerworm females are completely wingless where winter moth females have very tiny wing “buds”.

In addition, it is expected that some of the earlier-appearing moths may also have been the **Bruce Spanworm**, which is in the same genus (*Operophtera*) as winter moth. This species is native, is usually around at various population levels, and occasionally reaches damaging proportions.

Currently:

- **Fall Cankerworm** populations appear to be moderate to high across the state. (Higher in more eastern regions).
- **Winter moth** appears to be at phenomenal levels in most coastal areas of MA.
- **Bruce Spanworm** does not appear to be at high levels anywhere in MA.
- **Fall Cankerworm** and **Bruce Spanworm** adult activity is probably now mostly completed. However, **Winter moth** adults may continue to appear through December and even into January if mild days and especially mild nights occur.
  Much work continues in monitoring and measuring this flight activity.

Reported by Robert Childs, Entomologist, UMass Extension Landscape, Nursery and Urban Forestry Program, Amherst

Diseases

Sudden Oak Death (SOD), also known as **Ramorum blight** - The fungus *Phytophthora ramorum* causes a severe canker disease of oak and tanoak in certain Pacific Northwest fog forest areas. *Phytophthora ramorum* is currently known to have more than 25 other host plants on which it is generally not fatal. These include rhododendron, viburnum and camellia, which are potential “carriers” of the fungus when plants are transported. The damage on “non-oak” hosts involves minor leaf spotting and twig dieback. However, infections on these non-oak hosts may contribute to a rapid build-up of the fungus in an area, serving therefore as a reservoir of inoculum. Not all of the details of how the fungus spreads have been worked out, but these reservoir plants may play an important role.

On November 19, USDA, APHIS, PPQ confirmed *Phytophthora ramorum*, the pathogen causing sudden oak death, at two Connecticut nurseries. The Connecticut detections were made during trace forward investigations because of the Hines Nursery finds in Forest Grove, OR. The total number of confirmed positive sites from the trace forward, national, and other surveys is now 172 in 22 States. The breakdown per state is: AL (3), AR (1), AZ (1), CA (53), CO (1), CT (2), FL (6), GA (16), LA (5), MD (2), NC (9), NJ (1), NM (1), NY (1), OK (1), OR (24), PA (1), SC (4), TN (2), TX (11), VA (2) and WA (25). Of 170 positive detections, at least 127 are associated with a large retailer that shipped infected plants nationwide in March 2004.

For the Massachusetts survey, the UMass Plant Disease Diagnostic Lab in conjunction with MA Department of Agricultural Resources tested more than 300 samples by ELISA and culturing, and none were positive for *P. ramorum*.

The United States Forest Service (USFS) has conducted surveys near nurseries and within the forest environment. The Massachusetts Department of Conservation and Recreation worked with USFS to survey Massachusetts. As of November 22, 2004, the USFS has surveyed 681 nursery perimeters, collecting 3207 samples. To date none have tested positive for *P. ramorum*. The USFS has also surveyed 266 general forest locations, collecting 1310 samples. Two of those samples, from Golden Gate Park in San Francisco have

previously been reported as positive.

USDA/APHIS, United States Forest Service, and New York State have extensively surveyed and tested the preserve in Nassau County, New York and the suspect red oak. No other detections were made and no *P. ramorum* was cultured. Because the organism (*Phytophthora ramorum*) could **not** be isolated through culture, USDA/APHIS did **not** quarantine the entire county. In California and Oregon environmental finds the organism has always been cultured. We expect NY State to take the tree down soon and we expect to continue monitoring the preserve for two years. After two years, if no further detections are made, USDA, APHIS will likely declare that *P. ramorum* is known not to occur in Nassau County, New York.

Deciduous trees and shrubs - As the plants go dormant, it is a good time to prune dead branches, and collect fallen leaves to reduce overwintering inoculum (the resting structures of leaf spot, blight and canker fungi). If this debris is not removed, more of these disease fungi will be present in the area to initiate infections next spring. In addition, if leaf spots and blights are recurring, unsightly problems, resistant varieties or other plants better adapted to the site may be available to replace them.

Landscape, Nursery, and Urban Forestry Diagnostic Lab Report

The following are some of the interesting disease/abiotic disorder samples received at the UMass Extension Landscape, Nursery, and Urban Forestry Diagnostic Lab in Amherst during the period November 1 through November 26, 2004:

- **Flowering dogwood** - well established tree with curled and spotted leaves, as well as scattered branches dying back; Dogwood anthracnose.
- **Cryptomeria** - three of 18 trees transplanted last year have scattered shoots and branches browning from the tips; transplant stress/water shortage/opportunistic Pestalotiopsis blight.
- **American elm** - ~60-year-old tree with major limbs turning brown in early fall along with evidence of fungus growth from the stem base; both Dutch elm disease and Armillaria root disease.
- **Speckled alder -** nursery had many plants with brown-spotted leaves, along with some scattered blighted plants; both Phyllosticta leaf spot and Botrytis blight.
- **Mugo pine** - ~30-year old planting of a large area and during the least 2 years scattered shoots and branches have started browning; Sphaeropsis (Diplodia) shoot blight/previous seasons of heat stress + water shortage/winter damage

Reported by Dan Gillman, Plant Pathologist, based in the Urban Forestry Diagnostic Lab at UMass, Amherst, Mass