

# PLANT & PEST ADVISORY

LANDSCAPE, NURSERY & TURF EDITION \$1.50

MAY 17, 2007



## INSIDE

Diseases of Landscape Ornamentals . . . . .	1
Diseases of Turfgrass . . . . .	2
Plant Diagnostic Lab Update	3
Weekly Weather Summary . .	4
Computer Spreadsheet Skills for Greenhouse and Nursery Farmers . . . . .	5
English as a Second Language for Ag Workers . . . . .	5

## Diseases of Landscape Ornamentals

Ann B. Gould, Ph.D., Specialist in Plant Pathology

### Petal blight (Ovulinia) on Azalea and Rhododendron

**Ovulinia petal blight** is a fungal disease that affects only the flowers of susceptible azalea and rhododendron cultivars. The disease occurs in the landscape, greenhouse, and field. Symptoms include the appearance of small (less than 0.05 inches in diameter), water-soaked spots on infected petals. These spots rapidly enlarge until the flower becomes limp, slimy, and turns prematurely brown. Entire trusses may become diseased almost simultaneously. Within 6 to 8 weeks after infection, fungal structures designed to survive adverse environmental conditions, called sclerotia, form on infected flowers. Most of these flowers adhere to the plant, but some may fall to the ground. The small, black, raisin-shaped sclerotia germinate the following spring and produce spores that infect newly developing petals.

Wet, misty weather or heavy dew at flowering time enhances disease development. Since infection rate is higher when warm temperatures and frequent precipitation coincide with flowering, petal blight is often not as severe on early- and late-flowering cultivars or species. Mountain laurel (*Kalmia latifolia*) can be affected by petal blight if grown near infected rhododendrons.

Proper management of **petal blight** includes the removal of dead trusses and fallen petals as soon after bloom as possible to prevent the development of sclerotia. In greenhouses, reduce humidity through increased aeration and minimize leaf wetness whenever possible. Always inspect and quarantine new stock to prevent development of this disease in existing areas. For best results, apply one of the following through bloom in a manner consistent with the label: captan, chlorothalonil, ConSyst (chlorothalonil + thiophanate-methyl), Exotherm Termil (greenhouse only), ferbam, Junction (mancozeb + copper hydroxide), mancozeb, Manhandle (mancozeb + myclobutanil), myclobutanil, PCNB (ground application to established bushes), potassium bicarbonate, propiconazole, Quali-Pro TMC (chlorothalonil + thiophanate-methyl), Spectro (chlorothalonil + thiophanate-methyl), SysStar (thiophanate-methyl + flutolanil), thiophanate-methyl, triadimefon, TwoSome (chlorothalonil + fenarimol), ziram (field only), or Zyban (thiophanate-methyl + mancozeb). □

# Diseases of Turfgrass

Bruce B. Clarke, Ph.D., Specialist in Turfgrass Pathology

## Anthracnose

This disease, caused by the fungus *Colletotrichum cereale* (previously referred to as *C. graminicola*), will develop soon on annual bluegrass greens in the region. This fungus typically attacks turf growing under stress (i.e., low soil fertility and/or heat and moisture stress). Low cutting height (e.g. below 0.125 inch) will also enhance the severity of symptoms. To identify **anthracnose** in the field, look for small black fruiting bodies with protruding black spines on affected leaves or stems. For best results, increase turf vigor with light, frequent applications of nitrogen (e.g., 0.125 oz N every 10 to 14 days), maintain adequate irrigation, and apply a seed-head suppressant in April (e.g., Embark or Proxy-Primo) followed by sequential applications of Primo every two weeks from mid-April through September. Recent research at Rutgers University has shown that anthracnose can also be significantly reduced and acceptable greens speed (i.e., ball roll distance) maintained, by raising the height cut while increasing mowing frequency and rolling. For best results, apply Banner, chlorothalonil, Compass, ConSyst, Disarm, Eagle, Endorse, Headway, Heritage, Insignia, Rubigan, Spectro, Tartan, or thiophanate-methyl on a preventive basis per manufacturer's recommendations. Chipco Signature, Medallion, and Chipco 26GT can also effectively suppress this disease, but are most efficacious when used in a tank mixture with one of the previously mentioned fungicides. To reduce the potential for fungicide resistance, tank mix or alternate fungicides with different modes of action as needed every 14 to 28 days.

## Aschochyta leaf blight

**Leaf blight**, caused by the fungus *Aschochyta*, often appears on Kentucky bluegrass plantings during wet weather in late-May. Turf that has a thick thatch layer (2" to 3") is most susceptible to attack. Upon close inspection, both healthy and diseased leaves are evident within blighted areas. Infected blades typically appear white from the leaf "tip down". Under certain conditions, lesions may extend all the way down to the leaf sheath. As lesions age, prominent black pycnidia (fruiting bodies) develop along the bleached portion of affected tissue. Unlike anthracnose fruiting bodies, these structures lack visible black spines. During moist conditions, spores are released and infect healthy turf. Since *Aschochyta* enters grass through wounds, infection is most severe just after the grass is mowed. For best results, avoid frequent mowing, mow when the turf canopy is dry, raise the height of cut, use a "sharp mower blade" to avoid excessive leaf shredding, water as deeply and infrequently as possible without causing

moisture stress, water in the early morning hours, avoid excessive applications of nitrogen, and remove excess thatch. Control of this disease was recently added to the 3336 (thiophanate-methyl) label; however, fungicides are rarely warranted since affected turf typically recovers with proper maintenance and warmer weather.

## Dollar Spot

**Dollar spot** was observed on golf course greens and fairways in Central Jersey last week (May 9<sup>th</sup>). To prevent this disease from causing severe damage to susceptible turf again in 2007, maintain adequate nitrogen fertility, water in the early morning hours, reduce thatch, avoid the sole use of any fungicide for prolonged periods of time (to reduce the possibility of fungicide resistance), and apply Armada, Banner, Bayleton, Chipco 26GT, chlorothalonil, ConSyst, Eagle, Emerald, Headway, mancozeb, Rubigan, Spectro, Tartan, thiophanate-methyl, or vinclozolin per manufacturer's recommendations. Repeat fungicides as needed through late-October.

## Stripe Smut

This disease, caused by the fungus *Ustilago striiformis*, is starting to appear in Kentucky bluegrass plantings at this time. To identify **stripe smut** in the field, look for thick masses of black spores protruding through "shredded" leaf blades. Although fungicides are most effective when applied once in mid-October, present infections can be controlled now with two applications of a penetrant fungicide such as Armada, Banner, Bayleton, Eagle, Rubigan, Tartan, or thiophanate-methyl. Follow label directions carefully for best results.

## Summer Patch

Although it is still spring, now is the time to initiate an effective chemical and cultural control program for summer patch. This disease, caused by the fungus *Magnaporthe poae*, can be controlled through the use of good cultural practices and the application of a penetrant fungicide. For best results, maintain soil pH at or slightly below 6.0, fertilize turf with ammonium sulfate (during cool weather only) or sulfur-coated urea, avoid the use of nitrate-based fertilizers (which can enhance symptom severity), and aerify (before symptoms develop) to reduce compaction and decrease disease severity. Fungicides are most effective when applied in mid- to late-May (i.e., when the soil temperatures at a 2 inch depth exceed 65 °F for 5 to 6 consecutive days) and are then repeated two additional times at 28 day intervals. To optimize control, apply Armada, Banner, Bayleton, Compass, Disarm, Eagle, Headway, Heritage, Insignia, Rubigan, Tartan, or thiophanate-methyl in 4 to 5 gal water/1000 ft. If products are delivered in low water volumes (1 to 2 gal water/1000 ft<sup>2</sup>), irrigate with 1/8 inch of water immediately following application to enhance disease control.

SEE TURF DISEASES ON PAGE 3

# Plant Diagnostic Laboratory Update

Richard J Buckley, Laboratory Coordinator

## Turfgrass

Turfgrass samples are increasing from day to day in the laboratory. **Yellow patch** samples lingered early in the period with samples being sent from Union County and Virginia. Samples of golf turf with **Take-all** were sent from a North Carolina golf course. We should start to see that disease on New Jersey golf courses within the next couple of weeks. Another sample of bentgrass, this time sent from an Atlantic County golf course, was diagnosed with **anthracnose**. In home lawns, one sample of Kentucky bluegrass had **leaf spot** and **melting out**.

## Ornamentals

Once again, **winter injury** continues to dominate the submissions of ornamental plants. In the world of "real" diseases, a boxwood was submitted to the laboratory with **stem blight**, caused by the fungus *Volutella buxi*. The fungus *Volutella* often follows winter or drought damage into the shrub. Several arborvitae from New Jersey and another from a New York landscape had active infestations of **arborvitae leafminer**. The symptoms at first glance appeared to be winter damage. A closer look revealed tiny exit holes and active larvae in the needles. **Spruce gall midge** was identified in Norway spruce samples. This midge makes galls on spruce twigs that appear to be "skinny" versions of the **eastern spruce gall adelgid gall**. Last, but not least, **Japanese maple scale** was identified on a cutleaf maple from a south-Jersey nursery and today on a dogwood from an Ocean County landscape. This scale is perhaps the smallest scale I have ever seen. It is so small that it can build to huge populations and cause significant damage to the respective host before you know you have it. Watch out for this one. □

TURF DISEASES FROM PAGE 2

## Turf Field Days

Mark your calendars now for this year's Rutgers Turfgrass Research Field Days which will be held on Tuesday, July 31, 2007 (Golf and Fine Turf Research Field Day at Hort. Farm II, New Brunswick, NJ) and Wednesday, August 1, 2007 (Landscape Turf Research Field Day at the Adelphia Research Farm, Freehold, NJ). Additional information and directions to each location will appear in future issues of this newsletter. □

# Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged above normal, averaging 62 degrees north, 62 degrees central and 63 degrees south. Extremes were 84 degrees at Hammonton and Flemington on the 12th, and 34 degrees at Pomona on the 9th. Weekly rainfall averaged 0.18 inches north, 0.41 inches central, and 0.38 inches south. The heaviest 24 hour total reported was 0.72 inches at Trenton on the 12th to 13th. Estimated soil moisture, in percent of field capacity, this past week averaged 86 percent north, 77 percent central and 66 percent south. Four inch soil temperatures averaged 59 degrees north, 59 degrees central and 59 degrees south.

## Weather Summary for the Week Ending 8 am Monday 5/14/ 7

WEATHER STATIONS	RAINFALL		TEMPERATURE				GDD BASE50		MON		%FC
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP		
CANOE BROOK	.29	18.76	8.38	83	37	63.	5	257	141	85	
CHARLOTTEBURG	.08	14.15	3.93	82	35	62.	6	213	151	75	
FLEMINGTON	.19	17.96	8.08	84	36	62.	3	242	116	83	
NEWTON	.16	10.52	1.42	81	36	62.	5	202	117	80	
FREEHOLD	.31	13.60	3.78	83	49	66.	6	356	190	75	
LONG BRANCH	.62	13.71	3.56	73	39	58.	-1	224	86	86	
NEW BRUNSWICK	.19	17.90	8.33	83	38	63.	2	272	81	83	
TOMS RIVER	.20	11.08	1.22	80	37	60.	0	272	121	64	
TRENTON	.73	15.19	6.29	83	39	64.	2	311	94	81	
CAPE MAY COURT HOUSE	.39	7.32	-1.31	81	38	59.	-2	262	72	72	
DOWNSTOWN	.30	12.24	3.36	83	35	63.	1	328	100	66	
GLASSBORO	.41	11.18	1.78	83	42	65.	3	384	167	65	
HAMMONTON	.26	11.38	2.23	84	35	63.	2	336	127	59	
POMONA	.41	9.48	.86	83	34	61.	1	307	138	70	
SEABROOK	.50	12.15	4.11	83	39	66.	4	400	168	68	
SOUTH HARRISON	.44	13.73	5.08	83	38	65	NA	367	NA	NA	
WES KLINE -- GDD BASE 40 PINEY HOLLOW											
LAST WEEK 125 (Ending 5/7/07)											
THIS WEEK 163 (Ending 5/14/07)											

## Computer Spreadsheet Skills for Greenhouse and Nursery Farmers

Don't miss the opportunity to attend this one-day hands-on class designed specifically for the farmer working at greenhouses and/or nurseries. Through demonstrations and in-class exercises, you will learn how to use Excel to set up your own farm cost analysis spreadsheets for use in determining the profitability of your plant materials in future sales, either to the public or wholesale distributors. The morning session will explain the basic concepts behind an Excel spreadsheet. You will learn how to create a worksheet, develop simple math formulas, understand how to set up and establish rows, columns and cell addresses, and gain a basic understanding of what it takes to set up business worksheets.

During the afternoon session, taught by Dr. Robin Brumfield, (Extension Specialist, Rutgers Cooperative Extension) you will apply skills learned in the morning session to create a customized cost analysis spreadsheet to fit the precise needs of your business. Specific topics will include:

- Learning to allocate your farm's variable costs into your individual plant cost analysis
- Exploring how to determine whether a set of plantings will yield a profit or loss
- Becoming familiar with the tools required for financial and production management
- Understanding how and where to reduce your costs

The fee for the Computer Spreadsheet Skills course is \$20. The class will run from 8:00 a.m. to 4:00 p.m., with registration from 7:30 am to 8:00 am.

Copies of Dr. Brumfield's greenhouse cost accounting software will be available for an additional fee of \$50, make checks payable to: Rutgers, The State University of New Jersey.

Register on-line for any date: <http://www.cookce.rutgers.edu/brochures/intros/farm.html>

- June 4, 2007
- June 5, 2007
- June 18, 2007

If you'd prefer to register by mail or fax, simply download our registration form at: <http://www.cookce.rutgers.edu/brochures/intros/farm.html>. ☐

## English as a Second Language for Agriculture Workers

The New Jersey Farm Productivity Enhancement Training Program announces another course offering for New Jersey's agricultural community.

Since a large number of farm/agricultural workers speak Spanish as their primary language, a critical need for English language training exists. This grant-funded class will present the basics of spoken "American" English to Spanish-speaking agricultural workers. The course is comprised of six (6) four-hour sessions (8:30 am - 12:30 pm) and will be held at the Cumberland County office of Rutgers Cooperative Extension in Millville, N.J. Course dates are June 5, 12, 19, 26, and July 3 and 10, 2007.

Program topics are tailored for workers in agricultural and farm-related industries. The vocabulary and phrases introduced are agricultural and will include interpersonal, day-to-day job-related communication in English. The course assumes that attendees have little or no knowledge of English and will introduce basic expressions, sounds, pronunciation and sentence structure.

Registration fee is \$35 for the entire six days of training (24 hour total) and covers course materials and breakfast at each session. To receive a Rutgers University certificate of completion all six sessions must be attended.

For further information: Please call Program Coordinator Keith Wilson at (732) 932-9271 ext. 617 or e-mail [kwilson@cook.rutgers.edu](mailto:kwilson@cook.rutgers.edu).  
Course code# AP0201ID08 ☐



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