



Connecticut Department of Agriculture

Dannel P. Malloy, Governor; Steven K. Reviczky, Commissioner
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Marketing & Technology Bureau, (860) 713-2503

Linda Piotrowicz, Interim Editor
Wednesday, June 15, 2011

NOTES from the DEPARTMENT . . .

DIAGNOSING PLANT DISEASES FOR CT: THE PLANT DISEASE INFORMATION OFFICE

Dr. Sharon M. Douglas, Department of Plant Pathology and Ecology, The Connecticut Agricultural Experiment Station

Puzzled by the collapse of your impatiens crop? Worried about a return of late blight on your tomatoes? Concerned about the condition of your browning rhododendrons? The Plant Disease Information Office (PDIO) of the Department of Plant Pathology and Ecology of The Connecticut Agricultural Experiment Station is ready to provide no-cost clinical diagnosis and timely information on management strategies for all types of plants and plant diseases—for agricultural producers, nursery professionals, arborists, hobbyists, urban gardeners, and homeowners in Connecticut.

Every year, plants in landscapes, gardens, greenhouses, production fields, and forests are subject to a wide variety of problems that threaten their health. These problems might simply affect the aesthetics of the plant or could pose a more serious consequence that would result in plant disfigurement, crop loss by reductions in yield and quality, or plant death.

The Experiment Station's PDIO is a full service plant health diagnostic laboratory and a member of the National Plant Diagnostic Network (NPDN). The NPDN was established in 2002 in response to the need to enhance agricultural security by protecting the health and productivity of plants in agricultural and natural ecosystems in the U.S. The NPDN provides a nationwide network of plant diagnostic laboratories affiliated with public agricultural institutions. Working together, these laboratories have the capacity to quickly detect important introduced pests and pathogens, to accurately identify them, and to immediately report them to appropriate responders and decision makers.

When Connecticut residents are confronted with a diseased plant, a phone call to the PDIO is often the first step in the diagnostic process. This conversation covers the symptoms exhibited by the plant, as well as background information about the plant (e.g., date planted, number of plants affected, cultural practices, location in greenhouse or field). This helps to determine the best type of sample to collect and send or bring to the PDIO for more extensive examination and testing. Sample quality is critical for accurate di-

agnosis. The best samples exhibit early symptom development, a transition between diseased and healthy tissue, or a progression of symptoms from mild to severe, and include parts of the plant that are still partially alive (green). In contrast, samples that are totally necrotic and dry, have been dead for some time, or are too small will not be adequate for an accurate diagnosis. Dead plants can be used as food sources by all types of secondary microorganisms, thus inhibiting our ability to identify the primary pathogen.

Information on how to select, prepare, and send samples to the PDIO can be found at: <http://www.ct.gov/caes/cwp/view.asp?a=3756&q=442802&caesNav=1>. It is helpful to include a sample submission form (http://www.ct.gov/caes/lib/caes/documents/pdio_forms/pdiocheck_03-13-09.pdf) along with the sample, since it provides background information that is helpful for diagnosis. The direct phone number for the PDIO is 203-974-8601. State-wide toll-free: 877-855-2237.

Plant samples can be mailed, shipped, or hand-delivered to the PDIO. Once a sample arrives at the PDIO, it is identified before examination. Correctly identifying a plant is a primary step in diagnosing a plant disease, especially for ornamental plants. Identification by common name is avoided because common names for plants can be confusing. For example, "vinca" is used as the common name for distinctly different plants belonging to different genera: *Vinca*, a perennial, and *Catharanthus*, an annual. In many cases, identifying the plant by its scientific name to the genus level is adequate. However, in other cases, it is necessary to identify the plant to species and to cultivar. This level of identification may be necessary to determine the normal characteristics and attributes of the plant. Knowing what the plant is will provide a good understanding of what the plant should look like at a particular time of year or stage of growth. This allows us to determine what is normal or abnormal (diseased)—many plant species or cultivars have special or unusual growth habits or colors that are perfectly normal. For example, *Corylus avellana* 'Contorta,' commonly known as Harry Lauder's walking stick or corkscrew hazel, has strongly twisted, spiraling shoots and twisted leaves—these are normal attributes of this plant, not symptoms of disease or abnormality.

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ORGANIC FRUITS AND VEGETABLES

ARUGULA,24,GA	33.00	33.00
BLUEBERRIES,12/6oz,GA	30.75	30.75
BOK CHOY,35lb,FL	46.50	46.50
CARROTS,24ct,CA	44.00	44.00
CORN,4 1/2dz,FL	38.00	38.00
GINGER ROOT,20lb	42.00	42.25
GREEN BEANS,bu,FL	49.50	49.50
LEEKs,12s,CA	44.00	44.50
LETTUCE,greenlf,24ct,NC	37.00	37.00
MANGOES,10ct,MX	10.00	10.00
MUSHRM,wht,10lb,lg,PA	25.50	25.50
NECTARINES,1/2bu,NC	55.00	55.50
ONION,40lb,Vidalia,GA	51.50	51.50
PEACHES,60ct,NC	20.00	20.00
PEPPER,green bell,xl,FL	45.50	45.50
RASPBERRIES,12/6oz,CA	42.00	42.00
SQUASH,yellow,20lb,CA	42.00	42.00
STRWBRY,8/1lb,CA	29.75	29.75

NEW HOLLAND, PA HOG AUCTION

June 13, 2011

Hogs sold by actual weights, prices quoted by hundred weight.

49-54	220-270 lbs	71.00-74.50
	270-400lbs	67.00-72.00
	300-400lbs	63.00-66.00
45-49	300-400 lbs	46.00-51.00
Sows: US 1	300-500 lbs	47.00-49.00
	500-700 lbs	50.50-53.00
Boars:	300-800 lbs	32.50-33.00

MIDDLESEX LIVESTOCK AUCTION

Middlefield, Conn., June 13, 2011

Live animals brought the following average prices / cwt.

Bob Calves:	Low	High
45-60 lbs.	22.00	30.00
61-75 lbs.	45.00	50.00
76-90 lbs.	52.00	60.00
91-105 lbs.	64.00	70.00
106 lbs. & up	75.00	85.00
Farm Calves	90.00	150.00
Started Calves	22.00	32.00
Veal Calves	100.00	132.50
Open Heifers	85.00	102.50
Beef Heifers	80.00	110.00
Feeder Steers	90.00	115.00
Beef Steers	83.00	86.00
Stock Bulls	65.00	102.00
Beef Bulls	80.00	95.00
Butcher Hogs	75.00	77.50
Lambs each	55.00	200.00
Goats each	65.00	240.00
Kid Goats each	50.00	110.00
Canners	Up to	71.50
Cutters	72.00	77.00
Utility Grade Cows	78.50	82.50
Rabbits each	5.00	16.00
Chickens each	6.00	18.00
Ducks each	5.00	15.00

FRESH FRUITS & VEGETABLES

NEW ENGLAND GROWN

BEAN SPROUTS,10lb,flm	4.50	5.00
CHIVES,1lb,bnchd,12s	8.00	8.00
COLLARD,crtn,bnchd	11.00	11.00
KALE,crtn,bnchd	11.00	11.00
LETTUCE,Boston,12ct	7.00	7.50
LETTUCE,Boston,24ct	10.00	12.00
LETTUCE,greenleaf,24ct	10.00	12.00
LETTUCE,greenleaf,12ct	7.00	7.50
PEAS,sugar snap,10lbs	22.00	22.00
PEAS,snow,10lb	18.00	18.00
RADISHES,24ct	26.00	32.00
RHUBARB,20lb	14.00	14.00
ROMAINE,24ct	10.00	12.00
ROMAINE,12ct	7.00	7.50
SPINACH,24bnchs	18.00	18.00
STRAWBERRIES,8/1qt	25.00	27.00
TOMATOES,GH,25loose	34.00	34.00

SHIPPED IN

APRICOTS,72ct,CA	23.00	23.00
ARUGULA,4/4bu,NJ	14.00	14.00
BEANS,green,bu,VA	18.00	20.00
BEEETS,12s,NJ	10.00	12.00
BLUEBERRIES,12/1pt,NJ	23.00	24.00
CABBAGE,green,50lb,NJ	14.00	14.00
CANTALOUPE,9ct,CA	14.00	15.00
CHERRY,16lb,10rows,CA	70.00	70.00
CORN,4-1/2dz,GA	15.00	17.00
CUCUMBERS,1-1/9bu,md,NJ	16.00	20.00
KOHLRABI,1-3/5bu,NJ	16.00	18.00
LEEKs,12s,NJ	20.00	25.00
MUSHROOM,10lb,wht,lg,PA	16.50	17.00
PEACHES,25lb,white,CA	20.00	20.00
PEAS,English,bu,FL	36.00	38.00
PEPPER,cubanelles,1-1/9bu,NJ	17.00	18.00
RADISHES,24ct,NJ	13.00	13.00
SQUASH,green,1/2bu,md,NJ	10.00	12.00

Above quotations are based on Boston Terminal Prices

WEEKLY NEW ENGLAND SHELL EGGS

Prices paid per dozen. Grade A brown egg in carton delivered store door. (Range)

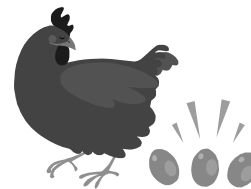
XTRA LARGE	138-147
LARGE	127-137
MEDIUM	115-125

NORTHEAST EGG PRICES USDA

June 13, 2011

Prices to retailers, sales to volume buyers, USDA Grade A and Grade A, white eggs in cartons, warehouse, centers per dozen. (Range)

EXTRA LARGE	90-112
LARGE	84-98
MEDIUM	69-82



PENNSYLVANIA WEEKLY HAY REPORT

June 13, 2011

Hay and straw market for eastern Pennsylvania. All hay prices paid by dealers at the farm and per ton.

Alfalfa Orchard Grass	small round
Good	400-500lbs
	25.00 per bale
Mixed Grass	large square
Good	650-750lbs
	29.00-43.00 bale
Orchard Grass	small round
Good	400-500lbs
	86.00 per bale

NEW HOLLAND LIVESTOCK AUCTION

Monday, June 13, 2011

Bulk/ High/ Low Dressing

SLAUGHTER COWS:

Breakers 75-80%lean	77.00-82.00	83.50-86.50	76.00-77.00
Boners 80-85% lean	75.00-79.00	79.00-83.00	73.00-74.00
Lean 85-90% lean	68.00-73.50	74.00-77.00	63.00-67.00

SLAUGHTER BULLS: Yield Grade 1
1475-1795 lbs 92.50-95.50

CALVES: All prices per cwt.
Holstein Bull Calves: Number 1
95-125 lbs 135.00-147.00
80-90 lbs -100.00-120.00
Holstein Heifers: Number 1
85-100 lbs 170.00-260.00

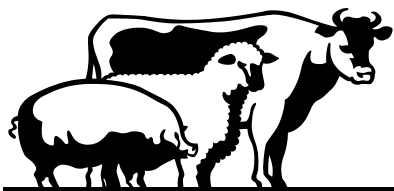
SLAUGHTER LAMBS: Non-Traditional Markets:
Wooled & Shorn Choice and Prime 2-3
40-60 lbs 195.00-220.00
60-80 lbs 207.00-222.00
80-90 lbs 211.00-226.00
90-110 lbs 213.00-227.00
110-130 lbs 214.00-229.00
130-150 lbs N/A

Wooled & Shorn Choice 2-3
40-60 lbs 168.00-183.00
60-80 lbs 187.00-202.00
80-90 lbs 192.00-207.00
90-110lbs 167.00-180.00
110-130lbs 177.00-190.00

SLAUGHTER EWES: Good 2-3: Med. Flesh
120-160 lbs 97.00-112.00
160-200 lbs 88.00-122.00
200-300LBS 105.00-108.00

Utility 1-2: Thin Flesh
120-160 lbs 82.00-96.00
160-200 lbs N/A

SLAUGHTER GOATS: All goats are Selection 1, sold by the head, on est. weights.
Kids: 30-40 lbs 100.00-114.00
40-60lbs 114.00-137.00
60-80lbs 128.00-152.00
80-100lbs 170.00-202.00
90-100lbs N/A
100-110lbs N/A
Nannies/Does: 80-130 lbs 130.00-145.00
130-180 lbs 137.00-152.00
Bucks/Billies: 100-150 lbs 205.00-219.00
150 250 lbs 220.00-224.00



ADVERTISEMENTS

The Connecticut Week Agricultural Report offers affordable classified advertisements for your farm-related needs. See Page 4 for details and rates, or contact Jane Slupecki at 860-713-2588 or Jane.Slupecki@ct.gov for more information.

FOR SALE

1-R. CT Christmas Tree Growers, CT Sheep Breeders and CT Beekeepers Associations Special Insurance Packages available through Blumenthal/Donahue Insurance Agency--Toll Free 1-800-554-8049, 1-877-267-8323, 1-888-526-8815, ddonahue01@comcast.net or www.hobbyfarmusa.com. Farm Commercial Auto Coverage now available.

2-R. Farm Insurance for all types of farming at very competitive rates. 1-800-554-8049, 1-877-267-8323, ddonahue01@comcast.net or www.hobbyfarmusa.com, Blumenthal/Donahue Insurance Agency. Farm Commercial Auto Coverage now available.

4-R. Gallagher electric fencing for farms, horses, deer control, gardens, & beehives. Sonpal's Power Fence 860-491-2290.

6-R. Packaging for egg sales. New egg cartons, flats, egg cases, 30 doz and 15 doz. Polinsky Farm 860-376-2227.

9-R. Rough sawn lumber, fence boards, trailer planks, tomato stakes, custom and portable sawing 203-788-2430.

104-R. Tomato stakes, tobacco lath, landscape beams, rough cut lumber. Staehly Products Co. LLC 860-873-9774.

111-R. Pair Black Percherons well broke with wagon and harness. Tel. 860-871-0171. Cell 860-559-5031.

123-R. M.F. Model 124 hay baler. Complete for parts. \$200.00. Call 860-305-5515.

125-R. Heritage turkey poult for sale: 3-4 week Narragansetts \$10 eac, 5-8 week Narr/Bourbon cross \$8 each. Fort Hill Farm, New Milford, 860-350-3158. Pick up only.

MISCELLANEOUS

7-R. Farm/Land Specializing in land, farms, and all types of Real Estate. Established Broker with a lifetime of agricultural experience and 40 years of finance. Representing both Buyers and Sellers. Call Clint Charter of Wallace-Tustin Realty (860) 644-5667.

118-R. Bulldozing in E. CT. Land clearing, ponds, especially for farmers. Don Kemp Excavating, 860-546-9500.

122-R. Heavy duty brush and small tree mowing services. Specializing in WHIP Programs, overgrown fields, hedge row removal, drainage ditch maintenance or any other out of control brush or overgrowth. Visit Burke Construction, LLC on Facebook or www.burkeridgeconstructionllc.com, www.whipbrushmowingnewengland.com 860-875-0280 or 860-553-3009.

GOAT/SHEEP PARASITE CONTROL WORKSHOP JUNE 26

A goat and sheep parasite control workshop will be held from 3:00 to 6:30 p.m. on June 26, 2011, at the Nathan Hale Homestead (workshop in the barn), 2299 South St, Coventry, CT.

Subjects to be covered:

- Integrated Parasite Control in Small Ruminants
- Introduction to Famacha
- SARE Grant: "Improving Small Ruminant Parasite Control"
- Detection of Anemia in Sheep (25 registered coopworths)
- New Pasture Fencing

There is a fee of \$11 for laminated card for determining level of anemia (optional).

Workshop is sponsored by UCONN Cooperative Extension System, USDA Sustainable Agriculture Research and Education, the University of Rhode Island, and USDA Natural Resource Conservation Service. RSVP by June 24 to 860-774-9600 or Joyce.Meader@uconn.edu.

THE PLANT DISEASE INFORMATION OFFICE

(continued from Page 1)

Once the plant is identified, the next step in disease diagnosis involves examining the plant to assess the symptoms. In a few cases, disease diagnosis is as straightforward as observing a specific symptom. However, for the majority of situations, the diagnosis is much more complex. Because the possibilities for probable cause are many, we narrow the cause down by analyzing several factors, which include symptoms, identification of the causal agent, and knowledge of the basic growth characteristics. Results of these analyses are interpreted in light of the reported susceptibilities of the plant.

Plant diseases are often characterized by the type of symptoms they produce on the host. Foliar, blight and dieback, canker, vascular wilt, and root rot diseases are the major types of plant diseases. As previously mentioned, the importance of these types of diseases varies—some diseases are more aesthetic than life-threatening. For example, a leaf spot on maple is not considered a serious threat to tree health. Alternatively, Verticillium wilt of maple, a vascular wilt disease, can seriously debilitate and eventually kill the tree by interfering with uptake of water and nutrients.

Because there are many instances where different causal agents (factors) can result in the same or similar symptoms on a host plant, disease diagnosis based solely on symptoms can be misleading. This can result in use of incorrect, ineffective controls—including applications of the wrong pesticide. Therefore, correct identification of the causal agent (causal factor) is critical. Causal agents can be divided into two groups based on whether they are living or non-living. Non-living disease agents, called *abiotic agents*, include factors such as environmental stress, site problems, or cultural care. Living disease agents, called *biotic agents* or *plant pathogens*, include fungi, fungus-like organisms, bacteria, viruses, phytoplasmas, and nematodes. Most biotic agents are microscopic and accurate identification is not possible without the necessary equipment. For example, when tomato plants are brought into the PDIO with wilt symptoms, we need to microscopically determine if the causal agent is a bacterium or a fungus, since control measures for bacteria are nearly ineffective for fungi and vice versa.

At the experiment station, we identify specific casual agents using a variety of traditional diagnostic techniques. These include visual assessment, examination of symptomatic tissue using stereo and compound microscopy and histochemical staining, and incubation of plant material under high relative humidity. Incubation allows infectious agents to grow and sporulate, so as to facilitate identification of the agent. Other procedures include using artificial and selective growth media to isolate biotic agents. If required, the PDIO is also equipped to conduct sophisticated testing. We have implemented biotechnological techniques for molecular (e.g., real time and conventional polymerase chain reaction [PCR]) and serological (e.g., Enzyme-Linked Immunosorbent Assay [ELISA]) detection of many difficult-to-identify causal agents such as viruses or phytoplasmas.

(continued on Page 4)

News and events from local agricultural organizations are published on a first-come, first-served basis as space allows.

Submit concise summaries (150 words maximum) to linda.piotrowicz@ct.gov for consideration. There is no guarantee that submissions will be published.

THE PLANT DISEASE INFORMATION OFFICE

(continued from Page 3)

Once the cause of the plant health problem has been identified, an understanding of how the disease is affecting the plant can be determined. This is necessary for making informed decisions about what, if any, action is required. If action is required, the thorough understanding of the host-pathogen (plant-causal agent) system will be crucial for the design and implementation of any disease management strategy.

In 2009, late blight of potato and tomato was responsible for devastating crop losses in Connecticut and the Northeast. This outbreak affected plants in commercial fields, greenhouses, high tunnels, and backyard gardens. Since the late blight pathogen attacks all above ground parts of tomatoes and potatoes, as well as potato tubers, it quickly kills the plants. Proactive protection of plants with fungicides is necessary in order to save plants. Accurate and rapid diagnosis of symptoms on samples submitted to the PDIO was critical for managing this disease and allowed some growers to save their tomato crops.

Management programs suggested by the PDIO focus on minimizing the impact of pesticides introduced into the environment and water of Connecticut. This focus results in saved dollars from reduced pesticide applications (cost of product and cost of application) and still maintains the value of the crop or commodity by reducing losses due to disease. We work closely with professionals and homeowners to develop disease management programs that meet their needs. These comprehensive programs consist of a multifaceted approach that includes use of culture, sanitation, genetic resistance, biological, and/or chemical control methods.

Cultural practices may involve maintaining plant vigor by following sound programs such as site selection and planting practices, water and nutrient management, mulching and weed control, spacing plants to increase air circulation, and venting and heating to reduce relative humidity in greenhouses. Sanitation methods include starting with healthy, pathogen-free plants, pruning, removing infected tissues, and using clean equipment. Genetic resistance involves using cultivars or species of plants genetically selected to resist or tolerate specific diseases. Biological control employs living agents to manage plant pathogenic agents. These agents have a direct impact on the pathogens through parasitism, competition, or antagonism, or they may have an indirect impact by inducing resistance or enhancing the growth of the plant host. Chemical practices use pesticides to protect the plant host or reduce the ability of the pathogen to grow or multiply in the plant host. The choice and timing of the pesticide are critical, and the PDIO can assist with this, since there are several categories of pesticides, some of which are compatible with organic or reduced-risk practices.

The PDIO is ready to provide clinical diagnosis and information on management strategies for all types of plant diseases—from spotted leaves of apple trees to rotted zucchini—for agricultural producers, urban gardeners, and homeowners throughout Connecticut. We continue to seek and develop new techniques to assist in faster and more accurate plant disease diagnosis. We also continue to devise and evaluate alternative strategies for providing effective disease management programs that minimize pesticide use and maximize environmentally responsible practices. Publications, fact sheets, and more information about the Experiment Station's PDIO can be found at www.ct.gov/caes/pdio.



Advertising Rates: Fifteen words or less \$3.75 per insertion. For ads of more than 15 words, 25 cents per word per insertion. Initial letters, hyphenated words, phone numbers, and addresses, etc., are counted separately. Print or type copy. Publication on a specific date cannot be guaranteed. Advertisements will be published on a first-come, first-served basis. Ads must be received by noon the Friday before a publication date to be considered for insertion. Only ads of an agricultural nature with a Connecticut phone number will be accepted. Remittance with copy required. Make check or money order payable to the Connecticut Department of Agriculture.

CONNECTICUT DEPARTMENT OF AGRICULTURE

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