



The Ohio State University Extension Vegetable Crops

Volume 19, Number 15, July 23, 2012. On the WEB at: <http://vegnet.osu.edu>

In this issue:

1. Vine Crops Downy Mildew Incidence Beginning to Expand.
2. Powdery Mildew Poised to Hit Pumpkin Crop Soon.
3. White Speck (aka Microdochium or Plectosporium) found on pumpkins.
4. Northern Ohio Vegetable Crops Field Night.

Vine Crops Downy Mildew Incidence Beginning to Expand

Sally Miller, Department of Plant Pathology

Downy mildew was confirmed on cucumbers in a non-sprayed sentinel plot in Fremont, OH on Tuesday July 17. The incidence was very low and the disease was not found in a sentinel plot in Celeryville/Willard.

On Thursday (July 19), downy mildew was confirmed on cantaloupe in Wayne County (West Salem) from the same farm where the disease was detected on cucumbers in June. The field had not been treated with fungicides. Disease incidence was high (70%) in the field.

Cucurbit downy mildew has been reported in southeast Michigan and Ontario in recent weeks. According to the Cucurbit Downy Mildew ipmPIPE (cdm.ipmpipe.org) forecast on July 18, downy mildew spread is likely in the upper Ohio Valley/Lake Erie region. Downy Mildew risk is HIGH for cucurbits in Northeast Ohio and MODERATE in Northcentral and Northwest Ohio.

We are still tracking downy mildew outbreaks, so please send us samples (overnight mail) if you suspect downy mildew in cucumbers, melons or other vine crops: Department of Plant Pathology, The Ohio State University, OARDC, 1680 Madison Ave., Wooster, OH, 44691. Phone 330-263-3838. Attn: Dr. Fulya Baysal-Gurel. Samples can also be dropped off at our lab in Wooster, the North Central Agricultural Experiment Station in Fremont or the Muck Crops Branch Station in Celeryville.

Management recommendations can be found in VegNet Vol. 19 No. 11, June 18 2012 (<http://vegnet.osu.edu/news/currentvn1112.htm>).



Downy mildew symptoms on cantaloupe.

Powdery Mildew Poised to Hit Pumpkin Crop Soon

Jim Jasinski, OSU Extension IPM Program; Sally Miller, OSU Plant Pathology; Bob Precheur, OSU Hort & Crop Science

Almost like clockwork toward the end of July and beginning of August, cucurbit powdery mildew shows up in Ohio's pumpkin crop. Powdery mildew is a key disease of both the foliage and fruit, attacking both sides of the leaf along with the fruit handles, lowering the overall quality and marketability of mature fruit. Powdery mildew has already been seen in Ohio summer squash fields and gardens.

Powdery mildew will initially be found on the underside of older leaves, especially where the canopy is heaviest, creating an ideal humid microclimate for the pathogen to develop colonies resembling white confectioner's sugar (Figure 1 & 2 below). Unlike most fungi, this pathogen reproduces readily in the absence of free moisture, e.g. rain. These favorable hot and humid conditions have existed over most of Ohio for the past few weeks.



Figure 1. Bottom surface of pumpkin leaf with powdery mildew. (Photo: J. Jasinski).



Figure 2. Powdery mildew pustules on upper surface of pumpkin leaf (Photo: J. Jasinski).

The standard pest management recommendation for beginning treatment is to begin spraying fungicides when powdery mildew colonies are first seen on the leaves, which can be as little as 1–2 percent of the leaf area. Waiting to begin sprays until after “whitish” leaves can be seen in the field as you drive by at 40 miles per hour will lead to an uphill battle to control this disease through harvest. Growers who planted powdery mildew resistant or tolerant hybrids still need to scout for this disease and spray accordingly.

Most of the fungicides that control powdery mildew are protectant fungicides, meaning they must be applied prior to infection to be effective. Contact fungicides like sulfur require thorough coverage of the upper and especially lower leaf surface to be effective against this disease. Many fungicides are at least partially systemic, which means they can move around within the plant or between leaf surfaces. For these materials, total coverage isn’t as critical, but better leaf coverage will provide better disease control. For mature pumpkin canopy sprays, use at least 35 gallons per acre at 60 PSI on a schedule of 7–10 days between sprays.

Over the past few years our research and demonstration trials have shown Quintec to be an excellent powdery mildew material, followed by Procure, Rally, sulfur, and Pristine. Remember to rotate among fungicides with different FRAC numbers to help manage powdery mildew resistance. There are several other effective fungicides we have evaluated that will be labeled in 2013 and beyond. For a first hand view of some of these products, be sure to attend our Pumpkin Field Day at the Western Ag Research Station in South Charleston on September 5th. More details about the field day will follow soon.

For a full list of the latest fungicide recommendations and their efficacy, please consult our 2012 Vegetable Production Guide.

White Speck, Plectosporium Blight formerly known as Microdochium Blight

Not present every year, this disease has turned up for a second year in South Charleston. The disease is characterized by the production of light tan to bleached, sunken, diamond or spindle shaped lesions, primarily on the main stems, petioles, main leaf veins and peduncles of leaf blades. Stem lesions can cause complete defoliation in severe cases. On the fruit, the fungus causes white, tan or silver russetting on the surface (see pictures below).

To help you identify this disease, check out our iTunes U video podcast (Do a search for VegNet in iTunes).

VIDEO: White Speck on Pumpkins

Did you suddenly lose pumpkin foliage this summer and the cause was not powdery mildew or downy mildew? Did you have white spots all over your leaves, petioles and vines. Were your vines bleached white? Did your pumpkin fruit and handles have a

white, rough, crusty surface. Chances are you had White Speck (aka Plectosporium blight or Microdochium blight). This soil born fungus returned to attack pumpkins this summer. Watch Jim Jasinski show you how to identify this disease. Jim will also present management strategies for control. Go to the VegNet home page and watch the second video from the top in Bob's Video Vegetable Notes:

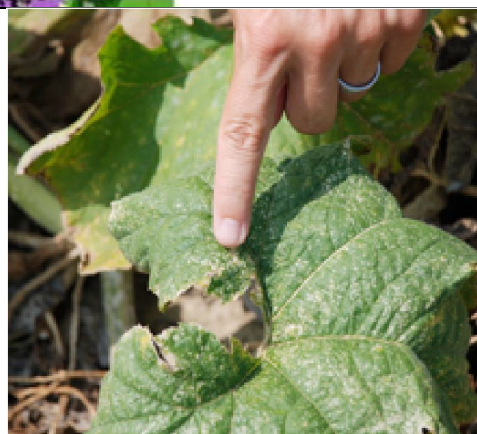
<http://vegnet.osu.edu>

★ Bob's Video Vegetable Notes

Check out our new videos below

Use the scroll bar on the right of the player list to see all the videos available!

For high speed internet connections ONLY, Do not use dial up connections.



Above: White Speck (Plectosporium blight) lesions on leaves.



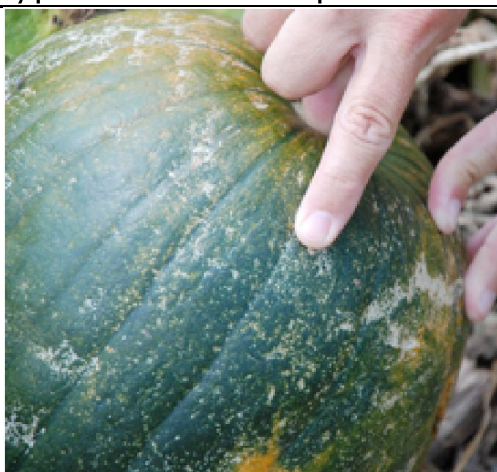
Above: White Speck (Plectosporium blight) lesions on petiole with typical diamond shape.



Above: White Speck (*Plectosporium* blight) lesions on leaf main veins with typical diamond shape.



Above: White Speck (*Plectosporium* blight) lesions on vine with russetting.



Left: White Speck (*Plectosporium* blight) lesions on fruit.

Control: Bravo Weather Stick, Cabrio Flint and Quadris are listed in the vegetable production guide for control and to be sprayed every 7 to 10 days. Also, rotate out of cucurbits for at least 2 years. Choose fields with well drained soils

For help in identifying pumpkin diseases, Don't Forget, Now Available at the iBookstore

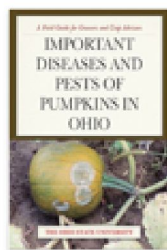
The iBook, "Important Diseases and Pests of Pumpkins in Ohio" is now available at the iBookstore in iTunes (see below). If you don't have iTunes, it is a free download from Apple for Mac and PC systems. Even though this publication is free, you will have to set up an account with a user ID and password to download it. For iPads only.

Important Diseases and Pests of Pumpkins in Ohio

[View More By This Author](#)

by C. A. Wyenandt, R. M. Riedel, C. Welty, R. J. Precheur & J. Jasinski

This book is available for download on your iPad with iBooks 2 or on your computer with iTunes. To read this book, you must be using an iPad with iBooks 2.



[View in iTunes](#)

Free

Available on iPad.

Category: Life Sciences

Published: May 10, 2012

Publisher: Robert Precheur

Seller: Robert Precheur

Print Length: 11 Pages

Language: English

Requirements: This book can only be viewed using iBooks 2 on an iPad. iOS 5 is required.

Customer Ratings

We have not received enough ratings to display an average for this book.

Description

This book is for pumpkin growers and crop advisors.

This book is a visual guide to common problems found in the field when growing pumpkins. It includes symptoms of bacterial and fungal diseases as well as leaf and fruit symptoms of virus diseases.

Common insect pests of pumpkins that spread disease or cause physical damage are also shown.

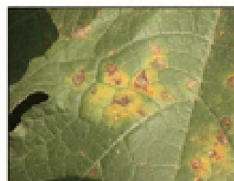
Vertebrate damage from birds and mice as well as miscellaneous problems from such things as hail damage are also included.

Screenshots

Angular leaf spot



Pseudomonas syringae, of pumpkin. Typical leaf symptoms above.



ALS with chlorotic halos around lesions, angular lesions or spots are restricted by the small veins on the leaf.



FREE AND OPEN TO THE PUBLIC

NORTHERN OHIO VEGETABLE CROPS FIELD NIGHT

TUESDAY, AUGUST 7, 2012 • 6-8:30 P.M.



Ohio Agricultural Research and Development Center
North Central Agricultural Research Station
1165 CR 43, Fremont, OH 43420



Topics

- Trap cropping to manage beetles and bacterial wilt in muskmelons
- Grafting tomatoes and their use in industry
- IR-4 Projects
- Worms and biocontrol on cabbage
- Insect update/thrip trials on cabbage

Speakers

- Celeste Welty, Entomology, OARDC and OSU Extension
- Matt Kleinhenz, Horticulture and Crop Science, OARDC and OSU Extension
- Leona Horst, USDA-ARS
- Mary Gardiner, Entomology, OARDC and OSU Extension
- Emily Linkous, Graduate Student, Entomology, OARDC and OSU Extension

For more information

Matt Hofelich, Manager
North Central Agricultural Research Station
(419) 332-5142, hofelich.4@osu.edu

About NCARS

The rich, fertile soils of Sandusky County, Ohio, are ideal for vegetable production, and in 1979 the North Central Agricultural Research Station of OARDC was established near Fremont on 105 acres of sandy loam and clay loam soils. The research conducted at the Station is of tremendous economic benefit to producers, food processors, and the general public located in the tri-state region of Ohio, Michigan, and Indiana.

Education Credits

Education credits will be available. Please contact Matt Hofelich, contact information above, or Mark Koenig, 419-334-6340 or koenig.55@osu.edu.

Location

Corner of County Road 43 and State Route 53, southwest of Fremont in Sandusky County.

Sponsored by the Ohio Agricultural Research and Development Center and Ohio State University Extension, the research and outreach arms, respectively, of Ohio State University's College of Food, Agricultural, and Environmental Sciences. OARDC and OSU Extension embrace human diversity and are committed to ensuring that all educational programs conducted are available to clientele on a nondiscriminatory basis without regard to race, color, age, gender identity or expression, disability, religion, sexual orientation, national origin, or veteran status.



North Central ARS <http://www.oardc.ohio-state.edu/branches/branchinfo.asp?id=2>