



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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Vegetable Crops

Managing Boron for Cole Crops - Gordon Johnson, *Extension Vegetable & Fruit Specialist*; gcjohn@udel.edu

The micronutrient boron is critical for production of cole crops (broccoli, cabbage, cauliflower, Brussels sprouts, kale, collards). Boron is naturally deficient in our sandy soils, and is also subject to leaching with rainfall, so available soil boron declines over time.

Cole crops have a moderate to high boron requirement. Symptoms of boron deficiency vary with crop type. Most boron deficient cole crops develop cracked and corky stems, petioles and midribs. The stems of broccoli, cabbage and cauliflower can be hollow and are sometimes discolored. Cauliflower curds become brown and leaves may roll and curl, while cabbage heads may be small and yellow. Of all the cole crops, cauliflower is the most sensitive to boron deficiencies.

It is recommended in broccoli and kale to apply 1.5-3 pounds of boron (B) per acre in mixed fertilizer prior to planting. In Brussels sprouts, cabbage, collards and cauliflower, boron and molybdenum are recommended. Apply 1.5-3 pounds of boron (B) per acre and 0.2 pound molybdenum (Mo) applied as 0.5 pound sodium molybdate per acre with broadcast fertilizer.

Boron may also be applied as a foliar treatment to cole crops if soil applications were not made. The recommended rate is 0.2-0.3 lb/acre of actual boron (1.0 to 1.5 lbs of Solubor 20.5%) in

sufficient water (30 or more gallons) for coverage. Apply foliar boron prior to heading of cole crops.

Other fall crops such as beets, radishes, and turnips are also susceptible to boron deficiencies in sandy soils with limited boron fertilizer additions.



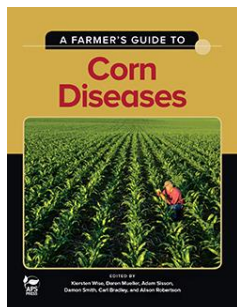
Gerald Holmes
California Polytechnic State University at San Luis Obispo
Bugwood.org
1574139
Boron deficiency in broccoli.

General

Guess the Pest! - Bill Cissel, *Extension Agent - Integrated Pest Management*; bcissel@udel.edu

Congratulations to Chris Metz for accurately identifying the insect in Guess the Pest Week #22 as soybean thrips. Chris will not only have his name entered into the end of season raffle for \$100 gift card not once but five times, he will also receive a FREE copy of [A Farmer's Guide to Corn Diseases](#). Click on the [Guess the Pest](#) logo below to participate in this week's

Guess the Pest! Guessing correctly will automatically enter you into a raffle for \$100 gift card at the end of the season and one lucky winner will also be selected to have their name entered into the raffle five times. For Guess the Pest # 23, we will also be giving away A Farmer's Guide To Corn Diseases (\$29.95 value) to one lucky participant.



<http://www.plantmanagementnetwork.org/book/cornfarmersguide/>

Guess the Pest Week #22: Answer is Soybean Thrips



Soybean thrips are small, slender bodied insects that are less than a couple mm in length. They belong to the order, Thysanoptera meaning fringe winged. (thysanos=fringe, pteron=wing). Having modified mouthparts, thrips rasp and puncture plant cells to suck up oozing plant sap. The physical feeding injury caused by thrips to soybeans rarely causes economic losses with the exception of when thrips populations are extremely high and plants are drought stressed. Thrips feed on the underside of leaves, typically along leaf veins causing pale colored scars. Under heavy feeding pressure, the leaves can appear mottled between the leaf veins and the leaves may become wrinkled. Soybeans are more susceptible to thrips injury during early season growth stages (VE-V6).



Thrips feeding injury

Thrips are also a concern in many crops because some species are known vectors of plant diseases. Soybean Vein Necrosis Disease (SVND), for example, is a relatively new thrips-vectored virus that was recently detected in Delaware and Maryland that affects soybeans.





N Kleczewski

Soybean Vein Necrosis Disease Symptoms

For more information on SVND, please review Guess the Pest Week #20

<http://extension.udel.edu/weeklycropupdate/?p=11055>

Here is a link to our 2016 Soybean Vein Necrosis Disease Survey Results:

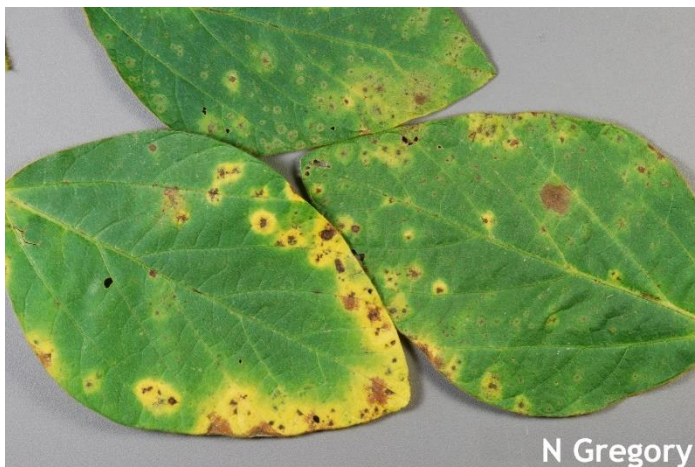
<https://cdn.extension.udel.edu/wp-content/uploads/2015/10/06094029/SVNVSURVEY2016-FIN-2-1.pdf>

Here is a link to a poster presentation on the *Occurrence and impact of Soybean Vein Necrosis Disease in Delaware*:

<https://cdn.extension.udel.edu/wp-content/uploads/2015/10/06094710/Occurrence-and-Impact-of-Soybean-Vein-Necrosis-Disease-in-Delaware.pdf>

Fun Entomology fact: Thrips is used in both the singular and plural form meaning that you can either have one thrips or many thrips.

Guess the Pest Week #23



N Gregory

What is this soybean disease?

To submit your guess click the Guess the Pest logo below or go to:

https://docs.google.com/forms/d/e/1FAIpQLSfUPYLZnTRsol46hXmgqj8fvt5f8-JI0eEUHb3QJaNDLG_4kg/viewform?c=0&w=1



NRCS Encourages Farmers to Apply for Conservation Assistance

The USDA Natural Resources Conservation Service (NRCS) is now accepting applications from Delaware's agricultural producers who want to improve natural resources and address concerns on their land. Farmers can apply now for technical and financial assistance through the Environmental Quality Incentives Program (EQIP) and Agricultural Management Assistance (AMA) program. The first application cutoff date for fiscal year 2018 is October 20, 2017 for both EQIP and AMA.

Assistance is available through EQIP and AMA to help farmers plan and implement conservation practices to improve soil, water, plant, animal, air and related resources on agricultural land and non-industrial private forestland. Popular practices include waste storage structures, heavy use area pads, energy, cover crops, irrigation water management, poultry windbreaks and more.

NRCS conservationists will work with producers to develop a conservation plan on their land to identify concerns and opportunities, help determine objectives and recommend solutions. "Developing a conservation plan expedites the program application process by improving the application ranking score for financial assistance, and allows farmers to apply practices more strategically," said Kasey Taylor, Delaware NRCS State Conservationist.

The recommended practices from the conservation planning process will be put in the program contract for implementation.

In FY 2016, Delaware approved 189 EQIP contracts covering 30,640 acres for a total of \$8.5 million.

NRCS accepts applications year-round but makes funding selections at application cut-off deadlines. Producers with applications in before October 20 will have a higher chance of application approval as funding is limited. Additional application cutoff dates are scheduled for the third Friday of each month until May 18, 2018.

To be eligible for program assistance, producers must have an eligible resource concern on their operation at the time of application.

To apply for financial assistance, contact your local USDA Service Center. In Sussex County, call 302-856-3990, ext. 3; in Kent County, call 302-741-2600, ext. 3; and in New Castle County, call 302-832-3100, ext. 3. Additional information on NRCS programs and services is available on the Delaware NRCS Web site at www.de.nrcs.usda.gov.

Announcements

New Castle County Fall Equine Program

October 10, 2017

New Castle County Extension Office
461 Wyoming Road
Newark, DE 19716

6:00 p.m. Global Worming: How to Prevent Dewormer Meltdown in the 21st Century

Dr. Rose D. Nolen-Walston, University of Pennsylvania School of Veterinary Medicine

6:40 p.m. New Castle County Conservation District Programs for Equine Operations

Mr. Kevin Donnelly, New Castle Conservation District Coordinator

6:55 p.m. Break

7:05 p.m. Preparing Your Pasture for Winter: Fall Fertilization and Weed Control

Ms. Susan Garey, University of Delaware Cooperative Extension

7:30 p.m. Preparing an Animal Waste Management Plan for Your Farm

Ms. Sydney Riggi, University of Delaware Cooperative Extension

7:55 p.m. Paperwork

8:00 p.m. Adjourn

Nutrient Management CEUs are pending

DSU Woodland Workshop Series

Please register for any or all of these workshops by contacting Megan (302) 857-6438 or emailing mpleasanton@desu.edu. (Please note that these workshops are not all at the same location.) You must register to attend these free workshops.

Chainsaw 101

Saturday, September 23 10:00 a.m. – noon
915 Kenton Rd. Dover DE 19904

This workshop will show you the do's and don'ts when it comes to chainsaw operations. You will learn safety tips as well as general chainsaw maintenance techniques. The class will be taught by Sam Topper from the Delaware Department of Agriculture's Forest Service.

Selecting and Harvesting Firewood

Thursday, October 26 3:00 – 5:00 p.m.
142 Simmental Meadows Ln, Marydel, DE

During this workshop, you will learn what trees to choose for harvest and which to let grow. You will also learn techniques for harvesting and selecting firewood for sale. This class will be taught by a Delaware Department of Agriculture Forest Service Representative.

Tree Trimming

Thursday, November 9 10:00 – noon
884 Smyrna Leipsic Rd, Smyrna DE 19977

This workshop will teach you the importance of proper tree trimming. The first half of the class will be instructions on how to make a proper cut and the second part will be a demonstration outside.

Building Wood Duck Boxes

Thursday, December 14 6:00 -8:00 p.m.
884 Smyrna Leipsic Rd Smyrna DE 19977

Build them and they will come. During this session you will learn the importance of wood ducks and why

we should promote the species. You will be able to build and prepare a wood duck box and take it home with you free of charge.

Small Ruminant Field Day: Reproduction

Saturday, September 16, 2017

9:00 a.m. – 3:00 p.m.

DSU Hickory Hill Farm

2065 Seven Hickories Rd, Dover, DE 19904

Registration: 9:00 - 10:00am

Program: 10:00am - 3:00pm

Cost: \$15 (Lunch included)

AGENDA

Morning Session

Basic Small Animal Reproduction

Reproduction: Pros and Cons of AI

Nutrition: Basics for Small Ruminants

Buck and Ram Selection & Management

Afternoon Session (1 hour each, pick 2)

Pasture Walk

Mobile Meat Processing Lab

Hoof Trimming

Register using the link below by September 2, 2017

<https://www.surveymonkey.com/r/HZPQW3K>

To request more information or for assistance due to disabilities, contact:

Kwame Matthews, Ph.D. - 302-857-6540,

kmatthews@udel.edu

Susan Garey - 302-730-4000, truehart@udel.edu

Dan Severson - 302-831-8860, severson@udel.edu

Large Animal Emergency Rescue Training

October 7 or 8, 2017 8:00 a.m. – 4:00 p.m.

University of Delaware Equine Science Program

UD Webb Farm, Farm Road, Newark

Do you know what to do in a large animal emergency? Are you prepared with equipment, know who to call, what to do? Whether you are a public safety official, a first responder, a veterinary professional, or an equestrian, this course is essential to prepare you for an emergency. You will learn how to move large animals safely and quickly in cases of disaster or injury, while preventing potential injuries to the humans involved. The course offers classroom instruction and hands-on

scenarios using our specialized equipment and equipment that may be readily available to first responder departments.

A one-day clinic is being offered to educate first responders, horse owners or anyone interested in learning basic large animal rescue techniques instructed by Roger Lauze, the Equine Rescue and Training Coordinator for MSPCA. Fair Hill NRMA's new rescue trailer, donated by the Volunteer Mounted Patrol, will be utilized for the training. The cost for the full day of training is \$10 per person. Please bring your own lunch and drinks.

Registration is limited to 40 participants per day so please register early. Dress appropriately for the weather as you will be hands on after classroom work. Please bring leather gloves and safety helmet.

For more information, contact Amy Biddle, Department of Animal and Food Sciences, asbiddle@udel.edu or (302) 831-2642.

To register mail or email **registration form** to Amy Biddle. Pre-registration must be received by September 30, 2017 <https://cdn.extension.udel.edu/wp-content/uploads/sites/12/2017/08/25133805/LAERTform2017.pdf>

Cut Flower Tour on the Eastern Shore

Tuesday, September 12, 2017

Commercial Cut Flower Farm Tours at:

Honeybee Farm

Cordova, MD

Smokey Cat Lavender Farm

Federalburg, MD

Seaberry Farm

Federalburg, MD

Lunch and short Extension talks are part of the afternoon session at Seaberry Farm. For details of the program, get the brochure at <https://extension.umd.edu/sites/extension.umd.edu/files/docs/programs/ipmnet/17Sep12C.pdf>

Cost is \$30 before September 8th; \$35 after this date. Lunch is not guaranteed after September 8th. Please note that no refunds will be given after September 8, 2017.

For more information on the program: (301) 596-9413 or sklick@umd.edu

Delaware Beekeepers Association's Open Hive Event

Saturday, September 23, 2017

8:30 a.m. – 12:00 p.m.

Delaware State University

Outreach and Research Center

884 Smyrna-Leipsic Road Smyrna, DE 19977

Please join us for educational lectures, demonstrations and a first-hand look inside a real honeybee hive. Get your first exposure to these important and fascinating insects!

(Rain Date September 24, 2017)

RSVP: *Kathy Hossler, DBA President,*
dbapresidenthossler@gmail.com

Or for more information about DSU's beekeeping program, contact Jason Challandes,
jchallandes@desu.edu or 302-388-2241

Cooperative Extension Education in Agriculture, 4-H and Home Economics, Delaware State University, University of Delaware and United States Department of Agriculture cooperating, Dr. Dyremple B. Marsh, Dean and Administrator. It is the policy of Delaware Cooperative Extension that no person shall be subjected to discrimination on the grounds of race, color, sex, disability, age, or national origin.

2017 Dickeya and Pectobacterium Summit

November 9, 2017

The Potato Association of America meetings were held last week in Fargo, ND. Interesting items of note were:

- Scottish scientists (including Ian Toth and Gerry Saddler) recommend regulating *Dickeya dianthicola* as A2 quarantine pest. They also recommend a zero tolerance for all *Dickeya* spp. on potatoes in Scotland.
- Work from North Dakota and Maine presented changes in dormant tuber tests that increased *Dickeya* recovery (reduced the false negatives) by as much as 30 percent.
- There is a new *Pectobacterium* species reported from Maine that affects plants in the field and tubers in storage.
- There may be some progress in chemical control of the pathogens (and NO, it is not phosphorous acid, Tanos, or anything else applied to the foliage!!!)

Sound interesting? Valuable? These, and other speakers will all be presenting on these and other topics at the Dickeya and Pectobacterium summit in Bangor on November 9, 2017.

This is an opportunity to hear the latest information that you, as a grower, need to know about these pathogens and diseases.

There is still room at the upcoming Dickeya and Pectobacterium Summit:

<https://extension.umaine.edu/agriculture/programs/dickeya-and-pectobacterium-summit/>

Day in the Garden Open House

with

Sussex County Master Gardeners

Saturday, September 16 10:00 a.m.-2:00 p.m.

Free!

Sussex County Master Gardeners are Thinking Pink!

The public is welcomed to attend their 2017 Open House "A Day in the Garden" which this year has a special focus on promoting healthy lifestyles and their patio area will highlight pink plants to promote breast cancer awareness.

Join us for this fun, family event. There's something for the whole family! Come and see how the garden has changed and grown since your last visit! Stroll through our new ADA garden path. Join us in thinking pink as our patio will feature shades of pinks for breast cancer awareness. Learn how to extend your garden into the beautiful fall season! Learn about bees and butterflies and learn how to attract them to your garden. Shop the plant sale! Attend our free mini-workshops. Play hopscotch in the Children's Garden. Enjoy ice cream from the University of Delaware UDCreamery's Moo Mobile (free to children under 16 with a coupon from Farmer McGregor). Bring your camera! Registration to attend is not necessary! This event is Rain or Shine!

Four Free Mini Workshops All in One Day!

Events this year include:

Check out the bee hotels around our garden

Plant Sale

Pink container garden in honor of breast cancer awareness

Dry Shade Garden

Vertical Garden Display

UDairy Creamery Ice Cream available for sale from the MooMobile!

Ask an Expert – Sick Plant Clinic

Special Children Events

The international award winning “The Misadventures of Peter Rabbit in Farmer McGregor’s Garden” will show at 10:30 a.m. and 1 p.m. Kids, ask Farmer McGregor for a coupon for free ice cream!

Come see what we’ve designed, planted and cultivated. There is a lot new this year! Do you have a plant that’s under the weather, or not cooperating with the weather? Bring it to our Sick Plant Clinic. Visit our plant sale and take home a new plant to enjoy in your garden!

Mid Atlantic Crop Management School

November 14-16, 2017
Ocean City, MD

Registration is now live

<https://app.certain.com/profile/form/index.cfm?PKfor mID=0x26558978c60>

You may now register for the 2017 Crop School by following the link above. We also have a shortened link you may share by email (<https://go.umd.edu/crop17registration>). The early bird fee is \$275 prior to September 15th; \$285 prior to October 30th; and \$325 if received by November 6th.

The school offers a 2 ½-day format with a variety of breakout sessions. Individuals needing training in soil and water, nutrient management, crop management and pest management can create their own schedule by choosing from 5 program options offered each hour. Emphasis is placed on new and advanced information with group discussion and interaction encouraged.

The full program for the 2017 Mid-Atlantic Crop Management School can be downloaded here: https://app.certain.com/accounts/register123/umd/evens/crop-17/2017_CMS_Program_FINAL_2017-09-05.pdf

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of August 31 to September 6, 2017

Readings Taken from Midnight to Midnight

Rainfall:

0.02 inch: August 31
0.76 inch: September 2
0.52 inch: September 5
0.48 inch: September 6

Air Temperature:

Highs ranged from 86°F on September 5 to 69° F on September 2.
Lows ranged from 68° F on September 5 to 58° F on September 4.

Soil Temperature:

73.7° F average

Additional Delaware weather data is available at <http://deos.udel.edu/>

Weekly Crop Update is compiled and edited by Emmalea Ernest, Associate Scientist - Vegetable Crops with assistance from Don Seifrit.

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