

Vegetable Pest Alert

May 19, 2023

EXTENSION

Cucurbit Scab

Scab on cucumber grown in a high-tunnel was spotted this week. Scab can affect cantaloupe, pumpkin and squash but it mainly infects cucumber. <u>Resistant cultivars</u> of cucumber are widely available. Foliar symptoms include pale-green, water-soaked spots in early stages that progress into angular or circular necrotic lesions. Affected fruit have large sunken lesions with water-soaked margins, that later develop corky "scabs" and may ooze sap. The pathogen survives in the soil on infected crop debris for up to three years, may be seedborne. The disease is favored by fog, heavy dew, light rains, and cool temperatures. The pathogen spreads on moist air, on insects, equipment, and humans. Spores produced in the spring can infect in as little as 9 hours,

produce spots by 3 days, and produce a new crop of spores by 4 days. Fungicide sprays may not be effective during extended cool, wet weather due to the short disease cycle of this pathogen. Good air movement for rapid drying of foliage helps to control the spread of this disease. Also, avoid overhead irrigation and dense plant canopies. The labeled pesticides for this disease can be found on <u>New England</u> <u>Vegetable Management Guide (NEVMG)</u>.





Figure 1. Cucumber fruit and leaves infected with scab (top photo by T.A. Zitter, Cornell Univ.; left photo by Srikanth Kodati, UConn; and right photo by Bruce Watt, Univ. of Minnesota)

Aphids on tomatoes

Aphids on tomatoes grown in a greenhouse were spotted this week. Scouting and preventative, timely releases of biological controls can be effective in managing aphids in greenhouse tomato. Signs of aphid activity include shed white skins, shiny honeydew, curled new leaves, distorted growth and the presence of ants. Refer to the <u>Transplant Insect and</u> <u>Mite Management</u> for scouting and biological control guidelines and <u>Greenhouse tomato pest</u> section of the NEVMG for insecticides labeled.



Figure 2. Aphid colony on underside of tomato leaf (note white skins shed by aphids)

Aphids can also be a significant pest in field-grown tomatoes. Scout weekly across the field, sampling 3 leaves per plant at lower, mid, and upper levels. Count aphid adults and nymphs and note if numbers are increasing. Treat when aphids exceed 6 per leaf. Beneficials generally (NOT always) keep aphids under control in tomato, unless broad spectrum insecticides are used for other pests. DO NOT use emulsifiable concentrates on tomatoes setting young fruit, or injury may occur. See <u>NEVMG</u> for spray options.

Solanaceous flea beetles

Flea betters were seen on field-grown tomatoes this week (these are different from brassica flea beetles). The solanaceous flea beetles feed primarily on eggplant, tomato, pepper and potato and some weeds including black night. They leave a characteristic small shot hole injury to the leaves. Potatoes, once well established, can withstand considerable feeding damage. Eggplants are vulnerable even at later stages. Treat newly set transplants if they have 2 flea beetles per plant, seedlings 3" to 6" tall if they have greater than 4 beetles per plant, and plants over 6" tall if they have 8 beetles per plant.

Row cover or exclusion netting can be used to exclude flea beetles early in production, before flowers develop. Spinosad (e.g. Entrust) is an effective material for organic growers but cannot be applied more than 2x consecutively; pyrethrin (e.g. Pyganic) will provide a quick knockdown of flea beetle as well. See NEVMG for more spray options.



Tomato seed and plants potentially contaminated with Tomato brown rugose fruit virus

There is a new virus of tomatoes and peppers this spring- Tomato brown rugose fruit virus (ToBRFV). Two varieties of tomato seeds, Sweet Prince and Brandywise (not Brandywine), potentially infected with the virus were sold to growers and gardeners. The infected lots reported were **Sweet Prince Lot #s NN21-SL-SP and NN22-SLSP2 and Brandywise Lot # NS 10-II-br** (Meg McGrath, Cornell). This virus is considered more serious than other viruses because it can easily spread when handling infected plants, can survive long-term in the soil, and damage the fruiting plants. If you are notified by a seed company regarding the infected seed, the seed and plants grown from the infected seeds must be destroyed, not composted.



Figure 4. ToBRFVinfected tomato leaves on left and healthy leaves on right (cf Kai-Shu Ling, USDA-ARS) Yellowing, bubbling, mosaic and mottling, fern leaf and leaf narrowing are all symptoms of ToBRFV on leaves.

If you have suspect tomato or pepper plants please contact us. Learn more about ToBRFV at: <u>https://www.vegetables.cornell.edu/pest-management/disease-factsheets/tomato-brown-rugose-fruit-virus/</u>

\$600 payments for farm employees through Farm and Food Workers Relief Program (FFWR)

Eligible frontline farm workers and meatpacking workers from Connecticut and 13 other states can apply for a one-time \$600 pandemic relief payment. FFWR is intended to defray costs for reasonable and necessary personal, family, or living expenses related to the COVID-19 pandemic, such as but not limited to, costs for personal protective equipment (PPE), dependent care, and expenses associated with quarantines and testing.

Relief payments will be available to eligible workers who performed work in farming and meatpacking work during the period extending from January 27, 2020 until the end of the incident period for the major disaster declaration related to COVID-19. Eligible beneficiaries should be frontline workers, and not those working in management positions.

Learn more about FFWR including the application process at https://farmworkers.com/





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