
What to be on the lookout for...

Cucurbit Downy Mildew Update

Cucurbit downy mildew (CDM) was confirmed in pumpkins in Morris County, NJ just south of Morristown last Friday. It is now possible that CDM will develop in any cucurbit crop in CT. There are 2 clades of CDM that affect different cucurbit crops. Clade 1 isolates preferentially infect watermelon, kabocha squash and giant pumpkin (both *Cucurbita maxima*), butternut squash, summer squashes, acorn squash, and Halloween pumpkin (all *Cucurbita pepo*). Clade 2 isolates preferentially infect cucumber and cantaloupe, usually arrives in New England first and we have reports of Clade 2 since this July. But this is the first report of Clade 2 north of Virginia this year.



Cucurbit downy mildew on pumpkin. Symptoms include angular yellow lesions showing fuzzy gray sporulation on the undersides. Look for chlorotic areas bordered by veins on the upper leaf surface (left). When conditions are moist, dark sporulation may be found on the lower leaf surface (right). Photos courtesy: Chris Cloutier, Rutgers Cooperative Extension.

Please check this out to see how the DM symptoms appear on giant pumpkin, Halloween pumpkins, and butternut squash:

<https://blogs.cornell.edu/livegpath/gallery/cucurbits/downy-mildew-o-cucurbits-early-symptoms/>

Mobile fungicides are needed to effectively manage downy mildew on the underside of leaves but are at risk for resistance development. For pesticide resistance management, alternate among chemical classes and apply these products with protectant fungicides; note that this is a label requirement for some products. Orondis Ultra, Ranman, Zing! or Gavel, and Omega, are considered the most effective choices.

Efficacy recently in some research plots and commercial fields has been substantially reduced compared to when first available for several fungicides, including Revus, Forum, Presidio, Previcur Flex, Curzate, and Tanos. These changes are likely due to resistance having developed. Revus has exhibited variable control across crop types; efficacy has been poor on cucumber and excellent on pumpkin. Curzate and Tanos have limited residual activity, which partly explains poor control when applied on a weekly schedule. Phosphorous acid fungicides are not as effective for this DM as for others. Ridomil Gold, and the QoI fungicides (Quadris F, Quadris Opti, Flint Extra, Cabrio, Pristine, and Reason are no longer recommended because of resistance. (Source: 2024 Cornell Integrated Crop and Pest Management Guidelines, Cornell Cooperative Ext Publication)

Thanks to Margaret McGrath at Cornell University detailed information about downy mildew and its management for conventional and organic systems:

Biopesticides for Managing Cucurbit Downy Mildew Organically

Mobile Fungicides for Managing Three Major Cucurbit Diseases

If you suspect CDM in any of your cucurbit crops, please let me know at shuresh.ghimire@uconn.edu or 959-929-1031, so I can help to track this important disease.

DISASTER RESPONSE RESOURCES

portal.ct.gov/disaster

Has Your Farm Been Impacted by Flooding? Report Damages and Loss to CT DoAg

REPORT LOSSES



- Contact Farm Service Agency
 - Report crop losses
 - Emergency disaster loans
 - FSA Disaster Assistance Discovery Tool
- Contact Natural Resource Conservation Service
 - Financial and technical assistance to assist with soil erosion, integrated pest management, high tunnels, irrigation needs and more
 - Existing contracts with practices damaged under a disaster may be eligible for assistance



**FSA Office
Locator**



**Contact
NRCS**



**DEPARTMENT
OF AGRICULTURE**

**Call us at
860-713-2500
or Email**

AGR.disaster@ct.gov

DISASTER RESPONSE RESOURCES

portal.ct.gov/disaster

- Arrange for soil testing
 - UConn, <https://soiltesting.cahn.uconn.edu/>
 - CT Agricultural Experiment Station
 - New Haven: 203-974-8521
 - Windsor: 860-683-4977 x2
- Plant Pest/Disease Issues, contact:
 - Fruit: Evan Lentz, evan.lentz@uconn.edu
 - Vegetable: Shuresh Ghimire, shuresh.ghimire@uconn.edu
- Report Infrastructure Losses to Local Emergency Management Team
 - <https://portal.ct.gov/demhs/emergency-management/resources-for-officials/regional-offices>
- CTFarmStressRelief.com

For Immediate Crisis Help 📞 Call 1 (833)897-2474

**FOR ADDITIONAL
RESOURCES, SCAN:**



portal.ct.gov/disaster

Livestock, crops, fields impacted by flooding?

Connecticut FSA has disaster and emergency programs to aid producers when disasters strike, and for some of those programs, a disaster designation may be the eligibility trigger. When natural disaster occurs, there is a process for requesting a USDA Secretarial disaster designation for a county and farmers play a vital role in this process. **Please reach out and let your local FSA county office know the impacts that the recent rains and flooding may have had on your operation.** In the meantime, please take a look at the many resources FSA offers that may help you during these difficult times.

FSA Disaster Assistance Discovery Tool

Learn about USDA disaster assistance programs that might be right for you by completing five simple steps. Scan the QR code or visit the website below

<https://www.farmers.gov/protection-recovery/disaster-tool>



HELPING PRODUCERS RECOVER FROM NATURAL DISASTERS



Quick Guide to Flood Food Safety for Fruit and Vegetable Farmers

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Digital Version (<https://publications.extension.uconn.edu/publication/flood-foodsafety-farmers/>)

Impact of Flooding on Produce

Flooding can substantially affect fruit and vegetable crops, posing significant food safety risks. Crops exposed to floodwaters may become adulterated and unfit for human consumption or animal feed due to potential contamination. The safety of crops must be evaluated thoroughly after flooding events to prevent health hazards to the public.

Types of Flooding

Two primary types of flooding occur: the first, a less severe type, happens after heavy rains ponding fields without introducing pathogens from rivers or lakes. The second, more severe type, involves runoff from rivers or lakes, likely carrying harmful chemical and biological contaminants. It is essential to distinguish between these flooding types when assessing the safety of impacted crops.

Sources of Contamination

Floodwaters can introduce two main types of contamination: microbial and chemical. Microbial contamination can arise from various sources, including upstream farms, septic systems, and animal waste. Meanwhile, chemical contaminants may involve heavy metals or agricultural chemicals. These contaminants pose risks not only to human health but also to livestock if they consume affected crops.

Assessing Crop Safety

If the edible part of a crop has contacted floodwaters from rivers or lakes, it is deemed adulterated per FDA guidelines, and no reliable method exists to ensure its safety for consumption. For crops where the edible parts were not directly exposed but were near flooded areas, assessment should be done case by case, considering factors like the type of vegetable and exposure duration. Furthermore, if the produce is exposed to ponded water, the risk of contamination should be assessed on a case-by-case basis, taking into account the specific conditions in and around the field.

Guidelines for Replanting

FDA recommends waiting for at least 30-60 days before replanting vegetables in the flooded fields. When replanting, it's also crucial to ensure that the soil is adequately dried and tested to safeguard against potential contamination risks. However, cover crops can be planted as soon as the ground can be worked.

Preventive Measures

Farmers are advised to establish a 30 feet buffer zone around flooded areas to prevent cross-contamination with unexposed crops. This can help mitigate risks associated with equipment spreading pathogens from flooded fields to adjacent areas where safe produce is harvested. Additionally, protective measures like wearing rubber gloves and boots while working in affected fields are essential.

Recommendations for Farmers

Crop segregation is critical; affected crops should be kept separate from those unaffected. It's also advisable for farmers to check their well water quality regularly to ensure safe conditions for irrigation and produce. Engaging with local agricultural extension services and following prescribed guidance can aid in efficiently managing post-flood crop safety.

References and Resources:

<https://www.foodstandards.gov.au/consumer/safety/floods-and-food-safety>

<https://cemonterey.ucanr.edu/newsletters/>

[_i_b_Monterey_County_Crop_Notes__b__i_96308.pdf](#)

<https://www.publish.csiro.au/MA/pdf/MA23054>

<https://resources.producesafetyalliance.cornell.edu/documents/Food-Safety-for-Flooded-Farms.pdf>

<https://ucsmallfarmfoodsafety.ucdavis.edu/english/agricultural-water/potential-biological-hazards/produce-safety-and-flood-resources>

<https://extension.umn.edu/growing-safe-food/food-safety-flooded-fields>

<https://blog-fruit-vegetable-ipm.extension.umn.edu/2022/08/food-safety-for-flooded-fruit-and.html>

<https://www.fda.gov/food/food-safety-during-emergencies/safety-food-and-animal-food-crops-affected-hurricanes-flooding-and-power-outages>

<https://extension.wsu.edu/flood/food-safety-during-flood-conditions/>