



**Greenhouse TPM/IPM Report**  
Central Maryland Research and Education Center  
Ellicott City, Maryland

**June 17, 2026**

**University of Maryland Extension:**

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**Penn State Extension:**

Patricia Prade - Extension Entomologist, Horticulture, Lehigh County Extension Office  
Krystal Snyder - Extension Educator, Horticulture, Northampton County

**Spring 2026**

Laura Nixon & Patricia Prade

As we head into summer, we are taking a look back at how this spring's production has looked. Laura has been visiting Maryland floriculture greenhouses this month and Patricia has been scouting greenhouse flower trials and tomato high tunnel trials in Pennsylvania. The general consensus has been lower than normal pest pressure in these controlled environments. An Eastern Shore grower shared that after mid-April, he went 7 weeks without any insecticide applications! Patricia's flower trials received fewer insecticide sprays, and



common pests such as aphids and thrips appeared about a month later than usual, and high tunnel management was greatly reduced. Our hypothesis for reduced pest pressure is the effect of erratic spring weather. We have seen a lot of temperature fluctuations and (until the past week) low humidity. This has been affecting timings for our landscape pests, with asynchronous or delayed emergence, and is likely influencing greenhouse pest populations too.

One downside of the erratic weather, however, is the effect on plants grown in the field. Some early cut flowers are seeing reduced growth and delayed bloom times. As the weather warms up and we (fingers crossed) continue to see more rain, all our outdoor plants should be looking a lot happier, but so will many pests and diseases so keep scouting!

**Unusual spring weather has thrown off the timing of many greenhouse and cut flower pests**

Photo: Murphy Johns

## June 23, 2026 IPM Scouts' Diagnostic Session

Time: 12:30 - 3:00

Location: CMREC, Ellicott City

The link to register for this program is on our [Conferences' web page](#)

### Flower of the Month

Krystal Snyder

June's flower of the month is the Mandevilla Sun Parasol® FiredUp™ Coral by Suntory Flowers. This mandevilla is a more compact variety with an excellent habit & striking color, and was a favorite at our 2025 Open House and Field Day.



**Right: Sun Parasol® FiredUp™ Coral Mandevilla**

Photo: Krystal Snyder



### Wax Scales in the Greenhouse

Laura Nixon

Heather Zindash (The Soulful Gardener) left a vial of scale on my desk last week that she had pulled off papyrus (*Cyperus papyrus*) this month. She had rightly identified them as wax scale. Common wax scale pests include the Indian wax scale (*Ceroplastes ceriferus*), Chinese wax scale (*C. sinensis*), Florida wax scale (*C. floridensis*), and barnacle wax scale (*C. cirripediformis*). These wax scale are all polyphagous with some overlapping host plants, but some plant-scale interactions are more common. Based on the size of the scale in our sample (5-6 mm), the rounded shape, and the host plant, these appear to be either Chinese wax scale or barnacle scale. Most plants can tolerate small to moderate infestations of wax scale, however, untreated populations can increase and spread, leading to chlorosis and honeydew build-up. Localized wax scale on greenhouse plants can be managed early by pruning out infested plant material and removing heavily infested plants. If treatment is required, contact oil or insecticides can be used on the crawler stage, before they develop a waxy coating. Systemics can be used on plants with feeding late instar nymphs and females. If treating, it is still recommended to isolate infested plants from non-infested.



**These appear to be Chinese wax scale or Barnacle scale**

Photo: Holly Greenberg, UME

## Fusarium and Pythium Root Rot Observed in Field Grown Lisianthus

Kelly Piccioni - Horticulture Educator, Penn State Extension, Schuylkill County

Recent scouting of field and high tunnel grown lisianthus identified symptoms consistent with Fusarium crown and root rot and Pythium root rot. Affected plants exhibited lower leaf yellowing, stunting, reduced vigor, crown discoloration, root decline, and eventual collapse. In severe cases, plants became necrotic and died. Symptomatic plants were often scattered throughout beds, with healthy plants located directly adjacent to affected plants.

Inspection of symptomatic plants revealed discolored crowns and poorly developed root systems. Roots were often brown and deteriorated with few healthy white feeder roots present. Many plants could be easily removed from the soil due to extensive root loss. Similar symptoms have been described by Penn State Extension and other university diagnostic laboratories for both Pythium and Fusarium root diseases. Pythium is favored by saturated soils and poor drainage and commonly causes root pruning, stunting, and plant collapse. Fusarium can persist in soil and crop debris for years and often becomes more severe during periods of warm temperatures and plant stress.

Lisianthus performs best at a soil pH between approximately 6.5 and 7.0. Elevated soil pH can reduce micronutrient availability, particularly iron, resulting in chlorosis and plant stress. Stressed root systems are often more susceptible to infection by soilborne pathogens. Poor drainage, excessive irrigation, prolonged wet conditions, and root injury during transplanting can further increase disease pressure.

Management should focus on prevention. Growers are encouraged to improve drainage, avoid excessive irrigation, remove severely affected plants, and submit symptomatic plants with intact roots and crowns to a diagnostic laboratory for confirmation. Preventative root dips or transplant drenches containing biological products such as Trichoderma spp. are commonly used by cut flower growers to establish beneficial microorganisms around developing roots. Banded or directed applications of labeled fungicides targeting root diseases may also be used where appropriate. Growers should consult current greenhouse, ornamental, and specialty cut flower production guides and verify that products are specifically labeled for lisianthus and the intended production system before application.

Because fungicides effective against Pythium may have limited activity against Fusarium, accurate diagnosis is critical. Regular scouting of roots and crowns, particularly when lower leaves begin to yellow, can help identify problems before significant stand loss occurs.



**Pythium & Fusarium show similar symptoms, with symptomatic plants often right next to healthy plants**

Photo: Kelly Piccioni (left) & Krystal Snyder (right)



**Stressed root systems are often more susceptible to infection by soilborne pathogens**

Photo: Kelly Piccioni

## Join us for the 2026 Penn State Flower Trials Field Day!

Thursday, July 23, 2026  
at the Southeast Agricultural Research and Extension Center in Manheim, PA

This annual event provides an opportunity to evaluate nearly 1,000 varieties of annuals and perennials, learn about the latest plant introductions, and connect with breeders, growers, retailers, landscapers, and other green industry professionals. Attendees can also visit with exhibitors and sponsors and earn pesticide recertification credits. Sponsor and Exhibitor opportunities available.

For registration and event information, visit the link below:  
[Penn State Flower Trials Field Day](#)

### Powdery Mildew and Downy Mildew Comparison

David L. Clement

With the advance of summer weather in our region, disease conditions will become more conducive. Especially as the humidity increases and localized showers occur. Two diseases that sometimes cause confusion are powdery and downy mildew. They can occur simultaneously although typically on separate crops. The powdery mildews are obligate parasitic fungi, and the downy mildews are obligate parasitic water molds. I've tried to compare the disease symptoms below.

#### Powdery Mildew:

- Whitish growth is mainly on the upper leaf surfaces and stems.
- The mycelial growth is mostly on the surface of the plant. Winter survival occurs in structures called chasmothecia, that have specialized appendages, on the plant or fallen leaves.
- Powdery mildews are host-specific, so the fungus attacking your roses will not spread to your monarda, or phlox.
- Even though the symptoms are identical there are several powdery mildew genera. Common powdery mildew genera include:
  - *Golovinomyces*: Frequently attacks herbaceous perennials, including rudbeckia, phlox and annuals.
  - *Podosphaera*: Primarily targets trees, shrubs, and roses.
  - *Erysiphe*: One of the largest and most widespread genera; affects both woody and herbaceous plants.
  - *Oidium*: This is an anamorphic (asexual) name often applied to powdery mildews on ornamentals before their sexual fruiting bodies are identified.



**The whitish mycelial growth of Powdery Mildew is mainly on the upper leaf surfaces and stems**

Photo: Suzanne Klick

## Downy Mildew:

- Upper leaf surfaces may have angular, yellow patches, with white to gray water mold growth mainly on the lower leaf surfaces to take damage of higher leaf canopy humidity.
- The growth can be systemic in the plant or survive the winter as resting structures called oospores within plant debris.
- Downy mildews are host specific and will not cross infect your other ornamentals. Common downy mildew genera include:
  - *Peronospora*: This is the most widespread genus. It affects ornamentals like, roses, coleus, snapdragons, foxgloves, and phlox.
  - *Plasmopara*: Prevalent on garden impatiens (*Impatiens walleriana*), rudbeckia, sunflowers, and geraniums.
  - *Bremia*: Commonly affects aster, China aster, and various members of the daisy and lettuce family.
  - *Hyaloperonospora*: Often found on cruciferous ornamentals like sweet alyssum and wallflowers.



**Downy Mildew's white to gray water mold growth occurs mainly on the lower surface of the leaf**

Photo: Suzanne Klick



**Angular yellow patches & stunted growth, characteristic of Downy Mildew, on sunflower**

Photo: Suzanne Klick



## Submitting Content: Help Us Help You

If you see anything of note, like:

- High or rapidly increasing numbers of a certain pest
  - A fun/interesting new cultivar or crop
  - Anything out of the ordinary, really  
...we would love to know!

We are always happy to receive submissions for potential newsletter content to help growers in the area.

**We will respect your privacy OR give you credit, whichever you prefer.**

Email submissions & photos to:  
Suzanne Klick - [sklick@umd.edu](mailto:sklick@umd.edu)  
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**Conferences** - Go to the [IPMnet Conference Page](#) for links and details on these programs.

**June 23, 2026 - IPM Scouts' Diagnostic Session**

Time: 12:30 - 3:00

Location: CMREC, Ellicott City

**August 4-5, 2026 - Stanton A. Gill Symposium: A focus on biological control**

Location: CMREC, Ellicott City



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