

Petunia Disease Problems in the Landscape

Ball Horticultural Company

Petunia use in the landscape

- “ Overuse, or continuous use of petunias in landscape beds is resulting in performance problems throughout many regions of North America.
- “ Most problems are occurring in beds planted with the same crop over many years.
- “ Problems most likely due to disease, soil problems, cultural changes

Current practices that result in petunia disease

- “ Annual or continuous use of the same crop in the same bed
- “ Daily overhead irrigation
- “ Irrigation going into nightfall or during the night
- “ Plants stressed from low feed or poor soil conditions

Identification of the problem

- “ Ball, working with pathologists at Clemson University believe that problems in petunia beds are most likely caused by *Phytophthora* root and crown rot or aerial blight, *Phytophthora nicotianae* (aka *parasitica*)
- “ Most petunia varieties evaluated are susceptible to the disease.
- “ Plantings in the southern U.S. may be more susceptible due to higher, and more sustained humidity levels and the potential over wintering survival of the pathogen in the soil.
- “ *P. nicotianae* is typically spread by splashing.
- “ All *Phytophthora* isolates found in the landscape are most likely resistant to mefenoxam (Subdue or Ridomil)

Is it a Wave® Petunia problem?

- “ **Absolutely not!** Pathogens affecting petunia performance are not variety specific. All petunias are susceptible.
- “ Wave® petunias are used significantly across the country in landscape situations. Since Waves were introduced 14 years ago, spreading petunia sales have tripled. Waves are so commonly used in the landscape that landscape professionals, and their clients may assume the problem is specific to Waves.
- “ Problems can and do occur with other petunias.

Recommended management practices for controlling disease problems in landscape beds

- “ **Rotate crops** on a regular basis. Alternating species, with items like ~~Serena~~ Angelonia, ~~Lucky~~ or ~~Landmark~~ Lantana, and ~~Dragon Wing~~ Begonia, may break the host/pathogen disease cycle.
- “ **Water beds early in morning** . allowing the leaves and plant canopy to dry prior to nightfall.
- “ **Reduce watering as beds mature**. Established plants require less water as the canopy develops and shades the roots.
- “ **Reduce stress on plants**. Petunias are best planted in full sun. Site petunias to receive a minimum of 6-8 hours direct sunlight. Wave® petunias require additional feed levels to maintain optimal performance. Supplement slow release fertilizer incorporation with additional liquid feeds during first 2-3 weeks after planting.
- “ **Remove contaminated soil**. If planting petunias in infected beds are the only option, consider removing and replacing contaminated soil in the bed. This may be cheaper in the long run than applying fungicides, or risking the loss of the bed due to disease.
- “ **If fungicides are needed**, mefenoxam based fungicides (Subdue or Ridomil) have shown decreasing effectiveness in controlling *P. nicotianae*.
- “ Phosphite fungicides such as Aliette have been shown to be more effective on the *P. nicotianae* pathogen.