Horticulture Diagnostic Laboratory

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Impatiens Downy Mildew In The Home Garden

A new disease is threatening garden impatiens. Downy mildew, caused by the fungus-like pathogen *Plasmopara obducens*, begins as a subtle leaf yellowing. These symptoms are followed by leaves flagging or curling downward, sometimes giving the appearance that the plants need to be watered. If infected when young, plants will be stunted. Under humid conditions, you will see a white coating on the undersurfaces of some leaves. Turn over any yellowed or downward curled leaves to look for the white coating of fungus spores: it may be difficult to find. Impatiens with downy mildew will gradually drop their flowers and leaves; eventually even the stems will collapse.

Early symptoms of downy mildew on impatiens; leaf yellowing and curl.

White coating of downy mildew spores on the undersides of infected leaves.

This downy mildew affects *Impatiens walleriana*, the standard bedding plant, as well as double-flowered impatiens, mini-impatiens, and Fusion® and Butterfly® impatiens. Although balsam impatiens (*I. balsamina*) are susceptible, the symptoms are largely limited to yellow leaf spots. New Guinea impatiens, fortunately, are not affected by this disease and no other bedding plants are hosts of this downy mildew. Different downy mildew diseases occur on other plants, but these are fairly host-specific. So you don't need to worry about this downy mildew of impatiens spreading to your sunflowers or your roses, for example.

Impatiens plants can become infected by downy mildew either by spores that overwintered in the garden soil or by spores spread from nearby infected plants via water splash (short distances) or wind (greater distances).

This disease thrives in moist or humid conditions. New infections will occur when there is a thin film of moisture on leaf surfaces for at least a few hours; new infections will not occur if conditions are dry. Rainy periods will encourage disease development and spread, as will overhead irrigation (especially at night), crowded plant spacing, or shade.

Once infected, plants will not recover. Watch your impatiens plants for symptoms of yellowing foliage or stunting and look for the diagnostic white sporulation on the undersurface of leaves. If found, entirely remove and dispose of infected plants (roots included) immediately. Do not leave plant material on site and do not compost the infected plant material.

Because oospores can overwinter in the soil and infect impatiens next year, it is prudent to replant with a different type of flower in any flowerbed where downy mildew has been seen. Consider New Guinea impatiens, begonias, coleus, or other alternative plants.

Early symptoms of downy mildew on impatiens.

Impatiens showing symptoms of leaf drop.

9/5/12, Nora Catlin (Cornell Cooperative Extension of Suffolk County) and Margery Daughtrey (Cornell University); photos by Margery Daughtrey. This fact sheet is available online at: http://ccesuffolk.org/floriculture-program

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