



Disease and Insect Resistant Ornamental Plants

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RHAPHIOLEPIS

Indian Hawthorn

Rhaphiolepis is a genus of about 15 species of evergreen shrubs and small trees in the family Rosaceae. Ornamental species, commonly known as Indian hawthorn, include *R. indica*, *R. umbellata*, and the hybrid *R. x delacourii*.

Cultivars are mostly compact shrubs with pink or white flowers and dark green foliage. Native to Japan and southern China, Indian hawthorn is a landscape mainstay in the southeastern US.

Potential diseases include fire blight and anthracnose, but leaf spot is the most prevalent.



DISEASES

Entomosporium Leaf Spot caused by the fungus *Entomosporium mespili* has a wide host range among species in the rose family. It is the most common and damaging disease of *Rhaphiolepis* in the landscape and nursery (2, 13). Active during prolonged periods of cool, wet weather, small lesions appear on leaves and eventually coalesce to create large dead areas. Severe infections can cause complete defoliation. In nursery production, high humidity, crowded plants, and splashing water from rain or overhead irrigation provide an ideal environment for disease spread (1).

ENTOMOSPORIUM LEAF SPOT				
Species/Hybrids	Cultivar	Reference		
		Resistant	Intermediate	Susceptible
<i>Rhaphiolepis</i>	Ballerina®			11
	Bay Breeze®			1, 5, 6, 9, 10, 11
	Becky Lynn			1
	Betsy	5		
	Bright Pink			10
	Cameo®			9, 10, 11
	Clara		1	11
	Dwarf Yedda	7		
	Eleanor Tabor™	5, 1, 9, 10	11	

ENTOMOSPORIUM LEAF SPOT

Species/Hybrids	Cultivar	Reference		
		Resistant	Intermediate	Susceptible
<i>Rhaphiolepis</i>	Elizabeth			11
	Enchantress®			1, 2, 7
	Eskimo	2, 5		
	Fascination			2
	Georgia Charm	4, 5, 11		
	Georgia Petite	4, 5, 11		
	Harbinger of Spring®			1, 7, 6
	Heather			1, 7, 10
	Indian Princess®	7, 6		
	Jack Evans		1	2
	Janice		1	
	Kathy			11
	Majestic Beauty®	2, 5, 7	1	
	Minor	11		
	Olivia™	1, 5, 7, 6 9, 10, 11		
	Ovata	1		
	Pinkie			1, 7, 6
	Pink Lady	2, 5		
	Pink Pearl		11	
	Rigg's Dwarf Pink			9, 10
	Rosalinda®		1	
	Spring Rapture®			1, 7, 6
	Springtime®			2, 7, 6
Snow	9, 10			
Snowcap®	5			
Snow White	2, 5, 7	1	11	
Southern Moon®	12			
White Enchantress®			1, 7, 6	
<i>R. x delacourii</i>		1, 2, 7		

Fire Blight is a disease of *Rhaphiolepis* and other plants in the rose family caused by the bacterium *Erwinia amylovora*. Named for the scorched appearance of affected leaves, blossoms and twigs, it can cause severe damage and death in nursery and landscape settings. Fire blight is favored by warm, humid weather and can be spread by insects and rain. Cultural practices that favor succulent growth such as excess fertilization and heavy pruning can increase disease incidence and severity.

FIRE BLIGHT				
Species/Hybrids	Cultivar	Reference		
		Resistant	Intermediate	Susceptible
<i>Rhaphiolepis</i>	Bay Breeze®	1, 6		
	Clara	1, 6		
<i>Rhaphiolepis</i>	Dwarf Yedda	1		
	Eleanor Tabor™	1, 6		
	Enchantress®	1, 6		
	Gulf Green™	6		
	Harbinger of Spring®	1, 6		
	Heather	1, 6		
	Indian Princess®	1, 6		
	Jack Evans			1
	Janice			1
	Majestic Beauty®	1	6	
	Olivia™		6	8
	Pinkie	1, 6		
	Rosalinda®	1, 6		
	Snow White	6		
	Spring Rapture®	1, 6		
Springtime®	1, 6			
White Enchantress®	1, 6			

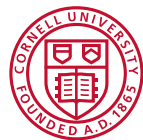
REFERENCES

- Colbaugh, P., A. Hagan, J. Walker, and L. Barnes. 2001. Indian hawthorn diseases, pp. 195-198. In: R.K. Jones and D.M. Benson, editors. Diseases of Woody Ornamentals and Trees in Nurseries. APS Press, St. Paul, MN.
- Corley, W.L. 1980. Leafspot ratings of ten *Raphiolepis* cultivars. Proc. Southern Nurs. Assoc. Res. Conf. 25:140-141.
- Corley, W.L. 1995. *Rhaphiolepis* 'Eskimo'. J. Environ. Hort. 13(4):203.
- Corley, W.L., and O.M. Lindstrom. 1995. 'Georgia Petite' and 'Georgia Charm' *Rhaphiolepis*. J. Environ. Hort. 13(4):204.
- Dirr, Michael A. 2009. Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses. 6th ed. Stipes Publishing L.L.C., Champaign, IL.
- Hagan, A.K., J.R. Akridge, K.L. Bowen, J.W. Olive, and K.M. Tilt. 2001. Resistance of selected cultivars of Indian hawthorn to Entomosporium leaf spot, fireblight, and anthracnose in Alabama. J. Environ. Hort. 19(1):43-36.

7. Hagan, A.K., J. Olive, K. Tilt, and R. Akridge. 1995. Resistance of Indian hawthorn to Entomosporium leaf spot. Proc. Southern Nurs. Assoc. Res. Conf. 40:216-218.
8. Holcomb, G.E. 1998. First report of fire blight on Indian hawthorn cultivar Olivia in Louisiana. Plant Dis. 82(2):1402. doi: [10.1094/PDIS.1998.82.12.1402D](https://doi.org/10.1094/PDIS.1998.82.12.1402D)
9. Holcomb, G.E., and A.D. Owings. 1997. Reaction Indian hawthorn cultivars to Entomosporium leaf spot, 1996. B&C Tests 12:62.
10. Holcomb, G.E., and A.D. Owings. 1998. Reaction Indian hawthorn cultivars to Entomosporium leaf spot, 1997. B&C Tests 13:59.
11. Ruter, J.M. 2004. Resistance of *Rhaphiolepis* selections to Entomosporium leaf spot. Acta Hort. 630:43-45. doi: [10.17660/ActaHortic.2004.630.3](https://doi.org/10.17660/ActaHortic.2004.630.3)
12. Ruter, J.M. 2018. 'RutRhaph1' Southern Moon® Indian hawthorn. HortScience 53(8):1230-1231. doi: [10.21273/HORTSCI13224-18](https://doi.org/10.21273/HORTSCI13224-18)
13. Schubert, T.S., and L.G. Brown. 1987. Entomosporium leaf spot of *Raphiolepis* sp. Florida Dept. Agric. & Consumer Service, Plant Pathol. Cir. 295. freshfromflorida.com/content/download/11301/144097/pp295.pdf

OTHER RESOURCES

“Missouri Botanical Garden.” missouribotanicalgarden.org



Cornell Cooperative Extension

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