

Black Walnut Toxicity

ALLELOPATHY

Some landscape plants such as Juglans and various Carya species are allelopathic; produce a toxic substance that will suppress the growth of some species of plants within the underlying canopy area. The specific substance produced by Juglans nigra (Black Walnut) and related species is called hydrojuglone, which oxidizes into a toxic substance called juglone. This chemical is of concern when trees are encountered in the landscape, as it will limit what may be grown under or near them. Professionals are left with only two solutions to the problem, one being removal of the problem tree and the other, planting Juglone tolerant plants such as those listed below. Mature Juglans and Carya species present dramatic forms in the landscape and every effort should be made to retain healthy trees. Further reading is provided in the Ministry of Agriculture and Food information bulletin entitled Black Walnut Toxicity included in this manual.

JUGLONE TOLERANT PLANTS

HERBACEOUS PERENNIALS

Ajuga reptans	Bugleweed
Alcea rosea	Hollyhock
Arisaema triphyllum	Jack-in-the-Pulpit
Asarum canadense	Wild Ginger
Astilbe X	Garden Astilbe
Athyrium	Lady Fern
Campanula latifolia	Bellflower
Chrysanthemum sp.	Garden Mums
Doronicum sp.	Leopard's Bane
Dryopteris cristata	Shield Fern
Epimedium sp.	Barrenwort
Galium odoratum	Sweet Woodruff
Geranium sp.	Garden Geraniums
Helianthus tuberosus	Jerusalem Artichoke
Helleborus sp.	Garden Hellebore
Hemerocallis sp.	Daylily
Heuchera sp.	Coral Bells
Hosta fortunei 'Glauca'	
Hosta lancifolia	
Hosta marginata	
Hosta undulata 'Variegata'	
Iris siberica	Siberian Iris
Matteuccia struthiopteris	Ostrich Fern
Mertensia virginica	Virginia Bluebells
Monarda didyma	Bee Balm
Myosotis sylvatica	Garden-forget-me-not
Oenothera fruticosa	Common Sundrops
Onoclea sensibilis	Sensitive Fern
Osmunda cinnamomea	Cinnamon Fern
Phlox sp.	Summer Phlox
Poa sp.	Blue Grass
Podophyllum peltatum	Mayapple
Polemonium reptans	Jacobs Ladder
Polygonatum commutatum	Solomon's Seal
Polystichum sp.	Christmas Fern
Primula sp.	Garden Primrose

Pulmonaria sp.	Lungwort
Sanguinaria canadensis	Bloodroot
Sedum sp.	Sedum
Stachys sp.	Lamb's Ears
Tradescantia virginiana	Spiderwort
Trillium sp.	Trillium
Uvularia sp.	Uvularia
Viola sp.	Violets
Vinca minor	Common Periwinkle

BULBS

Chionodoxa lucilliae	Glory of the Snow
Crocus sp.	Garden Crocus
Endymion hispanicus	Spanish Bluebell
Eranthis hyemalis	Winter Aconite
Galanthus sp.	Snowdrops
Hyacinthus sp.	Hyacinthus
Muscari sp.	Grape Hyacinth
Narcissus sp.	Daffodils
Scilla siberica	Siberian Squill
Tulipa sp.	Tulips

TREES

Acer palmatum	Japanese Maple
Carya sp.	Hickories
Catalpa sp.	Catalpa
Juniperus virginiana	Red Cedar
Picea abies	Norway Spruce
Quercus sp.	Oaks
Syringa sp.	Lilac
Tsuga canadensis	Canada Hemlock

VINES AND SHRUBS

Clematis sp.	Clematis
Daphne mezereum	Daphne
Euonymus alatus	Burning Bush
Forsythia sp.	Forsythia
Hibiscus syriacus	Rose of Sharon
Kolkwitzia amabilis	Beauty Bush
Lonicera tatarica	Tatarian Honeysuckle
Parthenocissus quinquefolia	Virginia Creeper
Philadelphus sp.	Mockorange
Rhododendron 'Pinxterbloom'	
	'Gibraltar'
	'Balzac'
Rubus occidentalis	Black Raspberry
Viburnum lantana	Wayfaring Tree

ANNUALS

Begonia sp.	Calendula sp.
Ipomea sp.	Viola sp.

Note: Where a Genus is listed most species are also tolerant of Juglone, additionally; where a species is listed most cultivars of that specific species will be tolerant of Juglone.

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Originally published in 'Trees, Shrubs and Vines of the London Area'