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# Black Walnut Tree Toxic#N12

Black walnuts (*Juglans nigra* L.) make beautiful shade trees and a pleasant tasting, if messy, hard to crack, edible nut. They're also valued for the lumber they produce. But black walnut trees are not always good companions for other plants.

## *Why are Black Walnuts Bad for Other Plants?*

Black walnuts contain a chemical called "juglone" which can be [allelopathic](#) to other plants. According to Purdue University Cooperative Extension, "Juglone has experimentally been shown to be a respiration inhibitor which deprives sensitive plants of needed energy for metabolic activity." What that means to the gardeners is that many plants growing in the vicinity of a black walnut tree will either be killed or will struggle to live, with yellowing, wilting leaves.

## *What Part of the Black Walnut Tree is the Problem?*

Juglone is found in all parts of the black walnut tree, but it is most concentrated in the flower buds, nut hulls and roots. Unfortunately the roots of a black walnut can extend 3-4 times the diameter of the tree's canopy, so the area affected is quite wide. Toxicity is further dependent on the soil's texture and drainage.

# The Walnut Tree: Tolerant Plants

## Tolerant trees and shrubs

*Acer negundo*, Box elder  
*Acer nigrum*, Black maple  
*Acer palmatum*, Japanese maple 'Dissectum'  
cutleaf Japanese maple  
*Acer saccharum*, Sugar maple  
*Asimina triloba*, Pawpaw  
*Betula nigra* 'Heritage', Heritage river birch  
*Cercis canadensis*, Eastern Redbud  
*Clematis terniflora*, (syn. *C. maximowicziana*) Sweet autumn clematis  
*Clematis* 'Red Cardinal'  
*Cornus florida*, Flowering dogwood  
*Daphne mezereum*, February daphne  
*Euonymus europaea*, European spindle tree  
*Euonymus hamiltoni*, Hamilton euonymus  
*Forsythia suspensa*, Weeping Forsythia  
*Gleditsia triacanthos f. inermis*, Thornless honeylocust  
*Halesia carolina*, Carolina silverbell  
*Hibiscus syriacus*, Rose of Sharon  
*Ilex opaca*, American holly  
*Juniperus chinensis* 'Pfitzeriana', Pfitzer Chinese juniper  
*Juniperus virginiana*, Eastern redcedar  
*Kerria japonica*, Kerria  
*Kerria japonica* 'Pleniflora', Double-flower kerria  
*Lonicera maackia*, Amur honeysuckle  
*Lonicera tatarica*, Tatarian honeysuckle  
*Lonicera xylosteum*, European fly honeysuckle  
*Morus alba*, White mulberry  
*Parthenocissus quinquefolia*, Virginia creeper  
*Picea abies*, Norway spruce  
*Philadelphus coronarius*, Mock orange  
*Pinus jeffreyi*, Jeffrey pine  
*Platanus occidentalis*, Sycamore  
*Populus* sp., Poplar  
*Prunus cistena*, Purple leaf sandcherry  
*Prunus serotina*, Black cherry  
*Pyrus calleryana*, Callery pear  
*Quercus alba*, White oak  
*Quercus imbricaria*, Shingle oak

*Quercus rubra*, Northern red oak  
*Rosa multiflora*, Multiflora rose  
*Sambucus canadensis*, American elderberry  
*Syringa* sp.  
*Thuja occidentalis*, American arborvitae  
*Tilia platyphyllos*, Bigleaf linden  
*Tsuga canadensis*, Canadian hemlock  
*Viburnum lantana*, Wayfaring-tree viburnum  
*Viburnum carlesii*, Koreanspice viburnum

## Tolerant Perennials

*Ajuga reptans*, Bugleweed  
*Alcea rosea*, Hollyhock  
*Anemone quinquefolia*, American Wood Anemone  
*Arisaema triphyllum*, Jack-in-the-Pulpit  
*Asarum europaeum*, European wild ginger  
*Astilbe* species  
*Athyrium*, Lady Fern  
*Campanula carpatia*  
*Campanula latifolia*, Bellflower  
*Chelone*, Turtlehead  
*Chrysanthemum* species, hardy chrysanthemum  
*Concalloria majalis*, Lily-of-the-Valley  
*Dicentra cucullaria*, Dutchman's Breeches  
*Dicentra spectabilis*, Bleeding Heart  
*Doronicum* species, Leopard's bane  
*Dryopteris cristata*, Crested wood fern  
*Echiantheae purpurea*, Coneflower  
*Galium odoratum*, Sweet woodruff  
*Geranium robertianum*, Herb Robert G. sanguineum, Cranesbill  
*Helianthus tuberosus*, Jerusalem artichoke  
*Helenium*, Sneezewort  
*Hemerocallis* species, Common daylily  
*Hesperis matronalis*  
*Heuchera x brizoides* 'Pluie de Feu', Coral bells  
*Hosta fortunei* 'Glaucd', Plantain lily  
*H. lancifolia*  
*H. marginata*  
*H. undulata* 'V. ariegata'  
*Iris siberica*, Siberian iris  
*Monarda didyma*, Bee balm  
*M. fistulosa*, Wild bergamot  
*Oenothera fruticosa*, Sundrops  
*Onoclea sensibilis*, Sensitive fern

*Osmunda cinnomea*, Cinnamon fern  
*Paeonia* sp., Garden Peony  
*Phlox paniculata*, Summer phlox  
*Phlox subulata*, Creeping phlox  
*Podophyllum peltatum*, Mayapple  
*Polemonium reptans*, Jacob's ladder  
*Polygonatum commutatum*, Great Solomon's seal  
*Primula x polyantha*, Polyanthus primrose  
*Pulmonaria* species, Lungwort  
*Sanguinaria canadensis*, Bloodroot  
*Sedum acre*, Gold moss  
*S. spectabile*, Showy sedum  
*Stachys byzantina*, Lamb's ear  
*Tradescantia virginiana*, Spiderwort  
*Trillium cernuum*, Nodding trillium  
*T. grandiflorum*, Wide wake-rob  
*Vinca minor*, Periwinkle  
*Viola canadensis*, Canada violet

## Vegetables:

Allium

Beans

Carrots

Com

Melons

Squash

## Fruits:

*Prunus* species, Peach, Nectarine,

Cherry, Plum

*Pyrus* species, Pear

*Rubus occidentalis*, Black Raspberry

## Herbaceous Annuals:

*Begonia*, fibrous cultivars and tuberous cultivar 'Nonstop'

*Calendula officinalis*, Pot marigold

*Ipomoea* 'Heavenly Blue', Morning glory

*Viola cornuta*, Horned violet

*Viola tricolor*, Johnny jump up

*Viola wittrockiana*, Pansy