

Evidence of Juglone Toxicity in Commonly-Cited Resources

Authors	Date	Title	Source/ Publisher	Evidence of Juglone Toxicity ^a
Resources from Penn State Extension That Support Juglone Toxicity				
1. Salsbury	Update 2023	Working with the Black Walnut	PSE https://extension.psu.edu/working-with-the-black-walnut	a) Cites sources 4 and 5 below, which include no references b) Black Walnut Plant Guide, USDA NRCS (April 2017); cites reference 5 below which includes no references Other references not specific to toxicity: a) Black Walnut, Penn State Extension Forest Resources. (April 2017) No longer available. b) Williams, M. D. (2017). <i>Identifying trees: An all-season guide to eastern North America</i> (2ND ed.). Mechanicsburg: Stackpole Books.
2. Roman & Sellemer	Update 2023	Landscaping and Gardening Around Walnuts and Other Juglone Producing Plants ^b	PSE https://extension.psu.edu/landscaping-and-gardening-around-walnuts-and-other-juglone-producing-plants	None; no references
Resources from Other Extension/State/US Publishers That Support Juglone Toxicity				
3. Joy & Hudelson	Revised 2010	Black Walnut Toxicity ^b	U Wisconsin-Madison Wisconsin Horticulture Division of Extension https://hort.extension.wisc.edu/articles/black-walnut-toxicity/	None; no references
4. None	Update 2011	Walnut Wilt ^b	Cornell Cooperative Extension of Oneida County	None; no references

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			https://s3.amazonaws.com/assets.cce.cornell.edu/attachments/23167/Walnut-Wilt-2012.pdf?1494308441	
5. Dana & Lerner	Revised 1994	Black Walnut Toxicity ^b	Purdue University Cooperative Extension Service, West Lafayette, IN ho-193.pdf (purdue.edu)	None; no reference
6. None	None	Selecting Juglone-Tolerant Plants: Landscaping Near Black Walnut Trees ^b	K-State Research and Extension, Johnson County https://www.johnson.k-state.edu/docs/lawn-and-garden/in-house-publications/trees-shrubs/Landscaping%20Near%20Black%20Walnut%20Trees.pdf	<ul style="list-style-type: none"> a) References 4 and 5 above, which include no references b) Black Walnut Toxicity to Plants, Humans and Horses. Ohio State University Extension Fact Sheet. No longer available. c) Green Tips. Department of Horticulture, Michigan State University. No longer available. d) Plants Tolerant of Black Walnut Toxicity. The Morton Arboretum. No longer available. e) Toxicity of Black Walnuts Towards Other Plants. Yard and Garden Brief. University of Minnesota Extension Service. No longer available. f) Delahaut, Karen. Juglone Tolerant Plants. University of Wisconsin Urban Horticulture. No longer available. g) Leuty, Todd. Walnut Toxicity. Ontario Ministry of Agriculture, Food, and Rural Affairs. No longer available.
7. Funt & Martin	October 2009	Black Walnut Toxicity to Plants, Humans and Horses. Ohio State University Extension Fact Sheet	Ohio State University	No longer available

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8. None	2021	Native Plant Profile: Black Walnut (Juglans nigra)	MD Department of Natural Resources https://news.maryland.gov/dnr/2021/06/21/native-plant-profile-black-walnut-juglans-nigra/	Cites reference 2 above, which includes no references Williams, R. D. 2021. Juglans nigra L. https://www.srs.fs.usda.gov/pubs/misc/ag_654/volume_2/juglans/nigra.htm
9. Hurteau	No date	Plant Guide: Black Walnut	USDA NRCS https://plants.usda.gov/DocumentLibrary/plantguide/pdf/cs_juni.pdf	Cites reference 5 above, which includes no references Other references are not specific to toxicity and are dated 1932 to 2000.
The Myth Debunked				
10. Chalker-Scott	March 2019	Do Black Walnut Trees Have Allelopathic Effects on Other Plants?	Washington State University Extension WSU Extension Publications Do Black Walnut Trees Have Allelopathic Effects on Other Plants? (Home Garden Series)	Provides historical overview of evidence; explains problems and inconsistencies in research findings. Most problematic: “Thus, the entire body of primary evidence for black walnut allelopathy in the landscape is attributed to two dated Extension publications, one that has been withdrawn from circulation and one that doesn’t exist. These are not reliable sources of information and should not be cited as evidence for juglone toxicity, especially in peer-reviewed journal articles.”
11. Andy	October 2023	Black Walnuts	The Poor Prole's Almanac: Restoration Agroecology https://poorprolesalmanac.substack.com/p/black-walnuts	Heavily referenced with citations to evidence-based articles published in peer-reviewed journals. “While testing has been applied around juglone and plant toxicity, it is surprisingly limited. There is substantial circumstantial evidence to suggest that juglone contributes to instances of “walnut wilt”, or plants suffering in proximity to black walnut, but the lack of actual, quantifiable data between laboratory and field studies leaves even this basic hypothesis surprisingly poorly supported...Now this doesn’t mean that juglone is not an issue, but rather that there’s a significant gap in data-backed field evidence to account for the diversity of players in a forest than, say, a laboratory.”

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12. Cupler et al.	August 2010	Black walnut and juglone toxicity: How strong is the evidence for the paradigmatic example of allelopathy?	95th Ecological Society of America Annual Meeting, 2010 (PDF) Black walnut and juglone toxicity: How strong is the evidence for the paradigmatic example of allelopathy? (researchgate.net)	Provides historical overview of evidence. “Although reports of black walnut toxicity are both ancient and abundant, the research linking walnut toxicity to patterns in the field is largely anecdotal and often lacks replication and appropriate control treatments.” “Most plant species interactions are the outcome of a complex interplay between abiotic conditions, resource competition, and various direct and indirect biotic factors, including tolerance to plant secondary compounds.”

^a Scientific evidence (cited studies) that demonstrates toxicity.

^b Includes lists of “tolerant” and “sensitive” plants. The original versions of these lists were published in two articles (Crist and Sherf 1973; Funt and Martin 1993) that were deemed not experimental but simply observational, ie, authors correlated the presence of walnut trees with damage to other species but did not confirm a causative relationship.