

26.08.2024

## Glyphosat – Literatur

- Anonym (2024): Active Substance Glyphosate. EU Pesticides database. Online <https://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/start/screen/active-substances/details/811>, abgerufen am 22.08.2024.
- Anonym (2024): pesticide properties database – glyphosate and AMPA. University of Hertfordshire, online <http://sitem.herts.ac.uk/aeru/ppdb/en/Reports/373.htm>, abgerufen am 22.08.2024.
- Anonym (2017): Final review report for the active substance glyphosate. European Commission, Directorate-General for Health and Food Safety, SANTE/10441/2017 Rev 2, 13 p.
- Anonym (2023): Peer review of the pesticide risk assessment of the active substance glyphosate. EFSA Journal 2023;21(7):8164, [www.efsa.europa.eu/efsa/journal](http://www.efsa.europa.eu/efsa/journal), pp. 52.
- Andert, S., F. de Mol, B. Gerowitz (2022): Weed response in winter wheat fields on a gradient of glyphosate use in the recent past. Agriculture, Ecosystems & Environment, Volume 333, pp. 10, <https://doi.org/10.1016/j.agee.2022.107977>
- Antier, C., et al (2020): Glyphosate Use in the European Agricultural Sector and a Framework for Its Further Monitoring. Sustainability 2020, 12(14), 5682; <https://doi.org/10.3390/su12145682>
- Augustin, B., K. Gehring (2020): Erste Glyphosat-Resistenz in Deutschland. 29. Deutsche Arbeitsbesprechung über Fragen der Unkrautbiologie und –bekämpfung. Julius-Kühn-Archiv, 464, 339-343.
- Beckie, H. J., K. C. Flower, M. B. Ashworth (2020): Farming without Glyphosate? Review. Plants 2020, 9, 96, <http://doi:10.3390/plants9010096>, pp. 15.
- Benbrook, C.M. (2016): Trends in glyphosate herbicide use in the United States and globally. Environmental Sciences Europe, 28(3), online <https://doi.org/10.1186/s12302-016-0070-0>, 15 p.
- Benbrook, C.M. (2019): How did the US EPA and IARC reach diametrically opposed conclusions on the genotoxicity of glyphosate-based herbicides? Environ Sci Eur (2019) 31:2; <https://doi.org/10.1186/s12302-018-0184-7>, pp. 16.
- Brookes, G., P. Barfoot (2006): Global Impact of Biotech Crops – Socio-Economic and Environmental Effects in the First Ten Years of Commercial Use. AgBioForum, 9(3), p. 139-151.
- Brovini, E.M., et al (2021): Glyphosate concentrations in global freshwaters: are aquatic organisms at risk? Environmental Science and Pollution Research (2021) 28, p. 60635–60648, <https://doi.org/10.1007/s11356-021-14609-8>
- Chen, Y. et al (2022): Insights into the microbial degradation and resistance mechanisms of glyphosate. Environmental Research 215 (2022), <https://doi.org/10.1016/j.envres.2022.114153>

- Clapp, J. (2021): Explaining Growing Glyphosate Use: The Political Economy of Herbicide-Dependent Agriculture. *Global Environmental Change* 67 (2021), <https://doi.org/10.1016/j.gloenvcha.2021.102239>, pp. 11.
- Connolly, A., M. A. Coggins, and H. M. Koch (2020): Human Biomonitoring of Glyphosate Exposures: State-of-the-Art and Future Research Challenges. *Toxics* 2020, 8, 60; <https://doi:10.3390/toxics8030060>, pp. 18.
- Dicke, D., R. Dittrich, K. Gehring, R. Götz, K. Hüsgen, G. Klingenhagen, M. Landschreiber, C. Tümmeler, D. Wolber, R. Forster, H. Kehlenbeck, H. Nordmeyer, J. Schwarz, L. Ulber, P. Zwerger (2017): Handlungsempfehlungen der Bund-Länder-Expertengruppe zur Anwendung von Glyphosat im Ackerbau und der Grünlandbewirtschaftung. Berichte aus dem Julius Kühn-Institut, 187, 11 S.
- Dickeduisberg, M., H.-H. Steinmann, L. Theuvsen (2012): Erhebungen zum Einsatz von Glyphosat im deutschen Ackerbau. 25. Deutsche Arbeitsbesprechung über Fragen der Unkrautbiologie und –bekämpfung, Julius-Kühn-Archiv, 434, S. 459-462.
- Dragus, A., D. Ristoiu (2015): The Impact of the Herbicide Glyphosate on Water Sources – Review. *Studia UBB Ambientum*, LX, 1-2, p. 49-56.
- Fairclough, B., P. Mal, S. Kersting (2017): Die wirtschaftliche Bedeutung von Glyphosat in Deutschland. Kleffmann Group, Lüdinghausen, 39 S.
- Finger, R., N. Möhring, P. Kudsk (2023): Glyphosate ban will have economic impacts on European agriculture but effects are heterogenous and uncertain. *Communications Earth & Environment*, 4:286, pp. 9, <https://doi.org/10.1038/s43247-023-00951-x>
- Fogliatto, S., A. Ferrero, F. Vidotto (2020): Current and future scenarios of glyphosate use in Europe: Are there alternatives? *Advances in Agronomy*, 163, 2020, <https://doi.org/10.1016/bs.agron.2020.05.005> p. 219-278.
- Gaines, T.A., et al (2021) Investigating the origins and evolution of a glyphosate-resistant weed invasion in South America. *Molecular Ecology*. 2021;30, p. 5360–5372, <https://doi.org/10.1111/mec.16221>
- Gehring, K., T. Festner, E. Meinlschmidt, S. Thyssen, C. Tümmeler, H. Weeber (2016): Bedeutung von Glyphosat für die chemische Unkrautregulierung im Maisanbau im Direktsaatverfahren. Julius-Kühn-Archiv, 454, S. 364-365.
- Gehring, K. (2014): Vermeidung von Herbizidasträgen durch Abschwemmung und Erosion. *Getreide-magazin*, 20(6), S. 8-12.
- Gianessi, L.P. (2005): Economic and herbicide use impacts of glyphosate-resistant crops. *Pest Management Science*, 61, p. 241–245.
- Gillezeau, C., M. van Gerwen, R.M. Shaffer, I. Rana, L. Zhang (2019): The evidence of human exposure to glyphosate: a review. *Environmental Health*, 18:2, <https://doi.org/10.1186/s12940-018-0435-5>
- Gillezeau, C., W. Lieberman-Cribbin and E. Taioli (2020): Update on human exposure to glyphosate, with a complete review of exposure in children. *Environmental Health* (2020) 19:115, <https://doi.org/10.1186/s12940-020-00673-z>, pp. 8.
- Guadalupe, J., C.P. Bautista, A.M. Rojano-Delgado, R. De Prado, J. Menéndez (2020): The First Case of Glyphosate Resistance in Johnsongrass (*Sorghum halepense* (L.) Pers.) in Europe. *Plants*, 9(3): 313. Online <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahU-KEwjAnf6KmZjqAhUvDGMBHaKIAwQQF-jAAegQIBRAB&url=https%3A%2F%2Fwww.ncbi.nlm.nih.gov%2Fpmc%2Farticles%2FPMC7154863%2F&usg=AOvVaw1TH-VldCGi9jPOebqMKS>, abgerufen am 23.06.2020.

- Heap, I. (2020): Weeds Resistant to Glyphosate, 323 cases by species and country. The international survey of herbicide resistant weeds, online <http://weedscience.org/Pages/filter.aspx>, abgerufen am 24.05.2020.
- Helander, M., I. Saloniemi, K. Saikkonen (2012): Glyphosate in northern ecosystems. Trends in Plant Science, 17(10), p. 569-574.
- Hudek, L., A. Enez and L. Bräu (2021): Comparative Analyses of Glyphosate Alternative Weed Management Strategies on Plant Coverage, Soil and Soil Biota. Sustainability 2021, 13, pp. 24, <https://doi.org/10.3390/su132011454>
- Kehlenbeck, H., J. Saltzmann, J. Schwarz, P. Zwerger, H. Nordmeyer, D. Rossberg, I. Karpinski, J. Strassmeyer, B. Golla, B. Freier (2015): Folgenabschätzung für die Landwirtschaft zum teilweisen oder vollständigen Verzicht auf die Anwendung von glyphosathaltigen Herbiziden in Deutschland. Julius-Kühn-Archiv, 451, S. 1-156.
- Kim, R., W. Ruster, H. Eggeling (2017): The Cumulative agronomic and economic impact of glyphosate in Europe. StewardRedQueen, top-level EU28 results and country chapters, 26 p.
- Krimsky, S. (2021): Can Glyphosate-Based Herbicides Contribute to Sustainable Agriculture? Sustainability 2021, 13, pp. 15, <https://doi.org/10.3390/su13042337>
- Landau, C., et al (2023): The silver bullet that wasn't: Rapid agronomic weed adaptations to glyphosate in North America. PNAS Nexus, 2023, Vol. 2, No. 12, p. 1-12, <https://doi.org/10.1093/pnasnexus/pgad338>
- Machulla, G., O. Nitzsche, W. Schmidt (2007): Minimierung des Stoffaustrages durch pfluglose Bodenbearbeitung. Neue Landwirtschaft, 11, S. 58-59.
- Mal, P., J.W. Hesse, M. Schmitz, H. Garvert (2013): Konservierende Bodenbearbeitung in Deutschland als Lösungsbeitrag gegen Bodenerosion. Journal für Kulturpflanzen, 67 (9), S. 310–319.
- Malkomes, H.-P. (2007): Einfluss unterschiedlich formulierter Glyphosat-Herbizide und eines herbiziden Vergleichsmittels auf mikrobielle Aktivitäten im Boden. Nachrichtenblatt des deutschen Pflanzenschutzdienstes, 59 (6), S. 124-132.
- Martins-Gomes, C., T. L. Silva, T. Andreani, A. M. Silva (2022): Glyphosate vs. Glyphosate-Based Herbicides Exposure: A Review on Their Toxicity. J. Xenobiot. 2022, 12, 21–40; <https://doi.org/10.3390/jox12010003>, pp. 20.
- Matousek, T., H. Mitter, B. Kropf, E. Schmid und S. Vogel (2022): Farmers' Intended Weed Management after a Potential Glyphosate Ban in Austria. Environmental Management (2022) 69, p. 871–886, <https://doi.org/10.1007/s00267-022-01611-0>
- Meftaul, I. Md., et al. (2020): Controversies over human health and ecological impacts of glyphosate: Is it to be banned in modern agriculture? Environmental Pollution, Volume 263, Part A, 2020, <https://doi.org/10.1016/j.envpol.2020.114372>, pp. 18.
- Montgomery, C. L.-M., J.A. Spackman, K.L. Schroeder and A.T. Adjesiwor (2024): Efficacy, crop response, and economics of alternatives to glyphosate for pre-plant weed control in small grains. Agrosystems, Geosciences & Environment, Volume 7, Issue 3, pp. 9, <https://doi.org/10.1002/agg2.20551>
- Müller, B. (2020): Glyphosate—A love story. Ordinary thoughtlessness and response-ability in industrial farming. J Agrar Change. 2021;21, <https://doi.org/10.1111/joac.12374> p. 160 -179.
- Munoz, J. P., T. C. Bleak, G. M. Calaf (2021) Glyphosate and the key characteristics of an endocrine disruptor: A review. Chemosphere, 270, <https://doi.org/10.1016/j.chemosphere.2020.128619>, pp. 15.
- Nessel, J. (2019): Konflikte zwischen Naturschutz und Landwirtschaft am Beispiel Glyphosat. Hochschule Neubrandenburg, Masterarbeit, Urn:nbn:de:gbv:519-thesis2019-0504-5, 168 S.

- Neve, P. et al (2024): Current and future glyphosate use in European agriculture. *Weed Research*. 2024;64, <https://doi.org/10.1111/wre.12624>, p. 181–196.
- Nunes Rezende, E.C., F.M. Carneiro, J.B. de Moraes and I.J. Wastowski (2021): Trends in science on glyphosate toxicity: a scientometric study. *Environmental Science and Pollution Research* (2021) 28, p. 56432–56448, <https://doi.org/10.1007/s11356-021-14556-4>
- Petersen, J. (2018): Konsequenzen des Glyphosateinsatzes im Ackerbau für Anbausysteme, Umwelt und Gesellschaft. Technische Hochschule Bingen, 38 S.
- Powles, S., D.F. Lorraine-Colwill, J.J. Dellow, C. Preston (1998) Evolved resistance to glyphosate in rigid ryegrass (*Lolium rigidum*) in Australia. *Weed Science*, 46(5), p. 604-607.
- Powles, S., C. Preston (2006): Evolved Glyphosate Resistance in Plants – Biochemical and Genetic Basis of Resistance. *Weed Technology*, 20, p. 282-289.
- Puigbo, P., et al. (2022): Does Glyphosate Affect the Human Microbiota? *Life* 2022, 12, pp. 8, <https://doi.org/10.3390/life12050707>
- Quaglia, G., et al. (2024): Mitigating glyphosate levels in surface waters: Long-term assessment in an agricultural catchment in Belgium. *Journal of Environmental Management*, Volume 359, pp. 13, <https://doi.org/10.1016/j.jenvman.2024.121046>
- Reaves, E. (2020): Glyphosate - Interim Registration Review Decision, Case Number 0178. US Environmental Protection Agency, Docket Number EPA-HQ-OPP-2009-0361, 36 p.
- Relyea R.A. (2005): The impact of insecticides and herbicides on the biodiversity and productivity of aquatic communities. *Impact in Ecological Applications*, 15, p. 618–627.
- Rivas-Garcia, T., A. Espinosa-Calderon, B. Hernandez-Vazquez and R. Schwentesius-Rindermann (2022): Overview of Environmental and Health Effects Related to Glyphosate Usage. *Sustainability* 2022, 14, pp. 14, <https://doi.org/10.3390/su14116868>
- Sang, Y., J.-C. Mejuto, J. Xiao and J. Simal-Gandara (2021): Assessment of Glyphosate Impact on the Agrofood Ecosystem. *Plants* 2021, 10(2), <https://doi.org/10.3390/plants10020405>, pp. 22.
- Sammons, R.D., D.C. Heering, N. Dinicola, H. Glick, A. Elmore (2007): Sustainability and Stewardship of Glyphosate and Glyphosate-Resistant Crops. *Weed Technology*, 21, p. 347-354.
- Scheithauer, M., M. Gierig, G. Straus, S. Simon-O'Malley, J. Fripan, I. Schlößer, T. Scheel, A. Maetze, M. Sengl, K. Gehring, J. Huber, J. Maier, W. Heller, S. Anstötz, M. Arndt, M. Jezussek (2018): Entwicklung der PSM-Belastung in bayerischen Gewässern – Bilanz nach 30 Jahren PSM-Monitoring. Bayerische Landesanstalt für Umwelt, Augsburg, 141 S.
- Schulte, M., L. Theuvsen, A. Wiese, H.H. Steinmann (2016): Die ökonomische Bewertung von Glyphosat im deutschen Ackerbau. 56. Jahrestagung der GEWISOLA „Agrar- und Ernährungswirtschaft: Regional vernetzt und global erfolgreich“, online <https://ageconsearch.umn.edu/record/244761/files/Schulte.pdf>, abgerufen 07.03.2017.
- Schulte, M., J. Thiel, L. Theuvsen (2016): Der Einsatz von Glyphosat im deutschen Sonderkulturbau – Eine qualitative Erhebung und ökonomische Bewertung. *Thünen Report*, 44, S. 135-157.
- Singh, R., et al. (2024): Systemic Analysis of Glyphosate Impact on Environment and Human Health. *ACS Omega* 2024, 9, p. 6165–6183, <https://doi.org/10.1021/acso mega.3c08080?urlappend=%3Fref%3DPDF&jav=VoR&rel=cite-as>
- Steinmann, H.-H. (2013): Glyphosat – ein Herbizid in der Diskussion und die Suche nach dem „Notwendigen Maß“. *Gesunde Pflanzen*, 65, 47–56.
- Steinmann, H.-H., M. Dickeyuisberg, L. Theuvsen (2012): Uses and benefits of glyphosate in German arable farming. *Crop Protection*, 42, p. 164-169.

- Stemmerich, K. (2018): Glyphosat – die Mischung macht's. Toxicology & Applied Pharmacology, 85(3), S. 105-109.
- Sullivan, T.P., D.S. Sullivan (2003): Vegetation management and ecosystem disturbance: impact of glyphosate herbicide on plant and animal diversity in terrestrial systems. Environmental Review, (11), p. 3-59.
- Sutherland, C., S. Gleim and S.J. Smyth (2021): Correlating Genetically Modified Crops, Glyphosate Use and Increased Carbon Sequestration. Sustainability 2021, 13, pp. 15, <https://doi.org/10.3390/su132111679>
- Schwientek, M., et al (2024): Glyphosate contamination in European rivers not from herbicide application. Water Research, Volume 263, pp. 10, <https://doi.org/10.1016/j.watres.2024.122140>
- Wiese, A. M. Schulte, L. Theuvsen, H.-H. Steinmann (2016a): Verwendung von Glyphosat im deutschen Ackerbau – herbologische und ackerbauliche Aspekte. 27. Deutsche Arbeitsbesprechung über Fragen der Unkrautbiologie und –bekämpfung, Julius-Kühn Archiv, 452, S. 249-254.
- Wiese, A. M. Schulte, L. Theuvsen, H.-H. Steinmann (2016b): Anwendungen von Glyphosat im deutschen Ackerbau – betriebliche Aspekte. 27. Deutsche Arbeitsbesprechung über Fragen der Unkrautbiologie und –bekämpfung, Julius-Kühn Archiv, 452, S. 255-262.
- Wiese, A. (2018): Analysen zur Glyphosatanwendung im Ackerbau – Ertragseffekte, Anwendungsmuster und Bestimmungsfaktoren. Georg-August-Universität Göttingen, Dissertation, 153 S.
- Wynn, S., E. Webb (2022) Impact assessment of the loss of glyphosate within the EU: a literature review. Environmental Sciences Europe (2022) 34:91, <https://doi.org/10.1186/s12302-022-00667-3>
- Wolber, D.M., H. Romundt, G. Warnecke-Busch (2016): Effektive Unkrautkontrolle im Verfahren Streifenfrässaat bei Mais – Brauchen wir Glyphosat? Landwirtschaft ohne Pflug, 5, S. 20-22.
- Ye, Z., F. Wu and D.A. Hennessy (2021): Environmental and economic concerns surrounding restrictions on glyphosate use in corn. PNAS 2021 Vol. 118 No. 18, pp. 9, <https://doi.org/10.1073/pnas.2017470118>
- Zhang L., I. Rana, R.M. Shaffer, E. Taioli, L. Sheppard (2019): Exposure to Glyphosate-Based Herbicides and Risk for Non-Hodgkin Lymphoma: A Meta-Analysis and Supporting Evidence. Mutation Research-Reviews in Mutation Research, <https://doi.org/10.1016/j.mrrev.2019.02.001>