

Tobacco in Australia

Facts & Issues

Relevant news and research

10.15 The environmental impact of tobacco production

Last updated November 2024

Research:	1
10.15.1 Land clearing and deforestation	4
10.15.2 Pesticides	4
10.15.3 Genetically modified tobacco leaf	4
10.15.4 Tobacco production and climate change	4
News reports:	4
10.15.4 Tobacco production and climate change	6

Research:

Ahmed, MJ, & Hameed, BH. (2024). Recent progress on tobacco wastes-derived adsorbents for the remediation of aquatic pollutants: A review. *Environ Res*, 247, 118203. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38237752>

Blanco Marquizo, A, Bianco, E, Paraje, G, Gouda, HN, Birckmayer, J, Welding, K et al. (2022). Moving forward in the Americas: tobacco control fosters sustainable development. *Rev Panam Salud Publica*, 46, e139. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36211242>

Craig, LV, Chung-Hall, J, Meng, G, & Fong, GT. (2022). Calculating the potential environmental impact of a menthol cigarette ban in the USA. *Tob Control*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36224044>

tobaccoinaustralia.org.au

Bialous, SA. (2022). Using MPOWER policies to address tobacco impact on the environment. *Rev Panam Salud Publica*, 46, e184. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36211246>

Raina, S. (2022). Tobacco control, climate change, public health, primary care-the name of the game is "conflict of interest". *BMJ*, 379, o2408. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36207028>

Urbaniak, M, Chinthakindi, S, Martinez, A, Hornbuckle, KC, & Kannan, K. (2022). Occurrence of primary aromatic amines and nicotine in sediments collected from the United States. *Sci Total Environ*, 851(Pt 1), 158102. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/35987249>

Sogi, GM. (2022). World No Tobacco Day 2022; Tobacco: Threat to our Environment - One More Reason to Quit. *Contemp Clin Dent*, 13(2), 99-100. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/35846583>

Hammerich, A, El-Awa, F, Latif, NA, El-Gohary, S, & Borrero, MDL. (2022). Tobacco is a threat to the environment and human health. *East Mediterr Health J*, 28(5), 319-320. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/35670435>

Wang, D, Li, J, Yao, X, Wu, Q, Zhang, J, Ye, J et al. (2022). Tobacco Waste Liquid-Based Organic Fertilizer Particle for Controlled-Release Fulvic Acid and Immobilization of Heavy Metals in Soil. *Nanomaterials (Basel)*, 12(12). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/35745398>

Taylor, L. (2022). Tobacco industry is "talking trash" on environmental harms of production, say WHO and watchdog. *BMJ*, 377, o1211. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/35562113>

Hao, TB, Balamurugan, S, Zhang, ZH, Liu, SF, Wang, X, Li, DW et al. (2021). Effective bioremediation of tobacco wastewater by microalgae at acidic pH for synergistic biomass and lipid accumulation. *J Hazard Mater*, 127820. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/34865896>

Di, H, Wang, R, Ren, X, Deng, J, Deng, X, & Bu, G. (2021). Co-composting of fresh tobacco leaves and soil: an exploration on the utilization of fresh tobacco waste in farmland. *Environ Sci Pollut Res Int*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/34482470>

Zou, X, Bk, A, Abu-Izneid, T, Aziz, A, Devnath, P, Rauf, A et al. (2021). Current advances of functional phytochemicals in Nicotiana plant and related potential value of tobacco processing waste: A review. *Biomed Pharmacother*, 143, 112191. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/34562769>

Hopkinson, NS, Arnott, D, & Voulvoulis, N. (2019). Environmental consequences of tobacco production and consumption. *Lancet*, 394(10203), 1007-1008. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31544743>

Araujo, MCB, & Costa, MF. (2019). From Plant to Waste: The Long and Diverse Impact Chain Caused by Tobacco Smoking. *Int J Environ Res Public Health*, 16(15). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31357681>

Hendlin, YH, & Bialous, SA. (2019). The environmental externalities of tobacco manufacturing: A review of tobacco industry reporting. *Ambio*. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30852780>

Zafeiridou, M, Hopkinson, NS, Voulvoulis, N. Cigarette Smoking: An Assessment of Tobacco's Global Environmental Footprint Across Its Entire Supply Chain. *Environ Sci Technol*, Jul 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29968460>

Gong M, Khurshid S, and Poppendieck D. What's in a butt? Environmental contamination from airborne cigarette butt emissions. *Integr Environ Assess Manag*, 2017; 13(3):549–51. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28440933>

de Granda-Orive JI, Jimenez-Ruiz CA, and Solano-Reina S. World Health Organization positioning. The impact of Tobacco in the environment: Cultivation, curing, manufacturing, transport, and third and fourth-hand smoking. *Arch Bronconeumol*, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29102336>

Novotny TE, Bialous SA, Burt L, Curtis C, Luiza da Costa V, et al. The environmental and health impacts of tobacco agriculture, cigarette manufacture and consumption. *Bulletin of the World Health Organization*, 2015; 93(12):877–80. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26668440>

Geist HJ, Chang K-t, Etges V, and Abdallah JM. Tobacco growers at the crossroads: Towards a comparison of diversification and ecosystem impacts. *Land Use Policy*, 2009; 26(4):1066–79. Available from: www.science-direct.com/science/journal/02648377

Rabinoff M, Caskey N, Fissling A, and Park C. Pharmacological and chemical effects of cigarette additives. *American Journal of Public Health*, 2007; 97(11):1981–91. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/17666709>

Mishra G. The effect of tobacco consumption on blood cholinesterase levels among workers exposed to organophosphorus pesticides. *Toxicology and Industrial Health*, 2007; 22(9):399–403. Available from: <http://tih.sagepub.com/cgi/reprint/22/9/399>

Khanjani N, English D, and Sim M. An ecological study of organochlorine pesticides and breast cancer in rural Victoria, Australia. *Archives of Environmental Contamination and Toxicology*, 2006; 50(3):452–61. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/16489419>

McDaniel P, Solomon G, and Malone R. The tobacco industry and pesticide regulations: Case studies from tobacco industry archives. *Environmental Health Perspectives*, 2005; 113(12):1659–65. Available from: <http://www.ehponline.org/members/2005/7452/7452.pdf>

Ezzati M and Lopez AD. Regional, disease specific patterns of smoking-attributable mortality in 2000. *Tobacco Control*, 2004; 13(4):388–95. Available from: <http://tc.bmjjournals.com/cgi/content/abstract/13/4/388>

Dunsby J and Bero L. A nicotine delivery device without the nicotine? Tobacco industry development of low nicotine cigarettes. *Tobacco Control*, 2004; 13(4):362–9. Available from: <http://tobaccocontrol.bmjjournals.com/cgi/reprint/13/4/362.pdf>

Chapman S. 'Keep a low profile': Pesticide residue, additives, and freon use in Australian tobacco manufacturing. *Tobacco Control*, 2003; 12(suppl. 3):iii45–53. Available from: http://tobaccocontrol.bmjjournals.com/cgi/reprint/12/suppl_3/iii45

10.15.1 Land clearing and deforestation

Cultivating tobacco-free farms. (2022). *Bull World Health Organ*, 100(12), 754-755.

10.15.2 Pesticides

Faria, NMX, Meucci, RD, Fiori, NS, Carret, MLV, Mello-da-Silva, CA, & Fassa, AG. (2023). Acute Pesticide Poisoning in Tobacco Farming, According to Different Criteria. *Int J Environ Res Public Health*, 20(4). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36833515>

Lopez Davila, E, Houbraken, M, De Rop, J, Wumbei, A, Du Laing, G, Romero Romero, O, & Spanoghe, P. (2020). Pesticides residues in tobacco smoke: risk assessment study. *Environ Monit Assess*, 192(9), 615. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/32876774>

Zhao GH, Yu YL, Zhou XT, Lu BY, Li ZM, et al. Effects of drying pretreatment and particle size adjustment on the composting process of discarded flue-cured tobacco leaves. *Waste Manag Res*, 2017:734242X17690448. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28190373>

10.15.3 Genetically modified tobacco leaf

10.15.4 Tobacco production and climate change

Wang, F, Jiang, X, Liu, Y, Zhang, G, Zhang, Y, Jin, Y et al. (2024). Tobacco as a promising crop for low-carbon biorefinery. *Innovation (Camb)*, 5(5), 100687. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39285903>

Ben Jebli, M, & Boussaidi, R. (2024). Empirical evidence of emissions discourse related to food, beverage, and tobacco production in leading manufacturing nations. *Environ Sci Pollut Res Int*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38438642>

News reports:

No authors listed. Greenwashing. *Tobacco Tactics*, 2020. May 7, 2020. Retrieved from <https://tobaccotactics.org/wiki/greenwashing/>

Zafeiridou, M. (2018). Cigarette smoking: an assessment of tobacco's global environmental footprint across its entire supply chain, and policy strategies to reduce it. Available from: <http://www.who.int/fctc/publications/WHO-FCTC-Enviroment-Cigarette-smoking.pdf?ua=1&ua=1>

No authors listed. Tobacco control, a 'major component' of environmental protection efforts – UN health official. United Nations News, 2018. Sept 4, 2018. Available from <https://news.un.org/en/story/2018/09/1018302>

No authors listed. Nigeria: Environmental activists have right to information on tobacco incentives, court affirms. EnviroNews Nigeria, 2017. Available from: <http://www.environewsigeria.com/erafoen-right-information-tobacco-incentives-court-affirms/>

No authors listed. Plastic film covering 12% of china's farmland pollutes soil. Bloomberg News, 2017. Available from: <https://www.bloomberg.com/news/articles/2017-09-05/plastic-film-covering-12-of-china-s-farmland-contaminates-soil>

Mandizha T. Timb takes over afforestation fund. News Day, 2017. Available from: <https://www.newsday.co.zw/2017/03/20/timb-takes-afforestation-fund/>

Johnston I. Nicotine-based pesticides harm bees despite corporations' claims, major study finds amid calls for total ban. The Independent, 2017. Available from: <http://www.independent.co.uk/environment/nicotine-based-pesticides-do-harm-bees-major-study-concludes-leading-to-calls-for-complete-ban-a7815371.html>

Hendlin YH. For an earth free of tobacco waste. Action on Smoking and Health, 2017. Available from: <http://ash.org/earth-free-of-tobacco-waste/>

Chaturvedi P. How the use of Tobacco affects the environment. The Wire 2017. Available from: <https://thewire.in/150333/how-the-use-of-tobacco-affects-the-environment/>

Awojulugbe O. Era/foen files legal action against customs over tax incentives given to tobacco companies. The Cable Nigeria 2017. Available from: <https://www.thecable.ng/you-have-rights-to-demand-tax-incentives-given-to-tobacco-companies-court-tells-ngo>

No authors listed. Indian government bans plastic packaging for tobacco. Packaging Gateway, 2016. Available from: <http://www.packaging-gateway.com/news/newsindian-government-bans-plastic-packaging-for-tobacco-5027975>

Mwareya R. Up in smoke: Tobacco industry reaps havoc on zimbabwe forests. Before It's News, 2015. Available from: <http://beforeitsnews.com/alternative/2015/05/up-in-smoke-tobacco-industry-reaps-havoc-on-zimbabwe-forests-3157990.html>

No authors listed. German smokers see cigarette butts recycled into ash trays. NBC News, 2014. Available from: <http://www.nbcnews.com/news/world/german-smokers-see-cigarette-butts-recycled-ash-trays-n207221>

Philip Morris International. Good agricultural practices (gap) New York: Philip Morris International, 2011. Last update: Viewed Available from: http://www.pmi.com/eng/about_us/how_we_operate/pages/good_agricultural_practices.aspx

Philip Morris International. Environmental initiatives. New York: Philip Morris International, 2011. Last update: Viewed Available from: http://www.pmi.com/eng/about_us/how_we_operate/pages/environmental_initiatives.aspx

Imperial Tobacco Group. Environmental impact. Bristol, UK: Imperial Tobacco Group, 2011. Last update: Viewed Available from: <http://www.imperial-tobacco.com/index.asp?page=115>.

Department of Climate Change and Australian Government. Climate change in a nutshell. Canberra: Commonwealth of Australia, 2011. Last update: Viewed Available from: <http://www.climatechange.gov.au/climate-change.aspx>.

Vector Group. 2009 stockholders' Report. Miami, Florida: Vector Group, 2010. Last update: Viewed Available from:
<http://www.annualreports.com/HostedData/AnnualReports/PDFArchive/vgr2009.pdf>.

Madrigal A. Cigarette maker has conducted 33 gm tobacco tests since '05. Wired Science Boone, Indiana: Conde Naste Publications, 2008. Last update: Viewed Available from:
<http://blog.wired.com/wiredscience/2008/03/cigarette-maker.html>.

International Tobacco Growers' Association. Trees and tobacco. Castelo Branco, Portugal: International Tobacco Growers' Association, 2008. Last update: Viewed Available from:
<http://www.tobaccoland.org/conteudos/default.asp?ID=17&IDP=4&P=4>.

Nicotine-free cigarettes? Genetically Engineered Organisms Public Issues Education Project Ithaca, New York: GEO-PIE Project, Cornell University, 2008. Last update: Viewed Available from:
<http://www.geo-pie.cornell.edu/crops/tobacco.html>.

Department of Climate Change and Australian Government. Climate change - what does it mean? Canberra: Commonwealth of Australia, 2007. Last update: Viewed Available from:
<http://www.climatechange.gov.au/>.

Monbiot G. The denial industry. The Guardian, 2006; 19 Sept. Available from:
<http://www.guardian.co.uk/environment/2006/sep/19/ethicalliving.g2/print>

Liggett Vector Brands. Corporate website. Mebane, North Carolina: Vector tobacco, Liggett Vector Brands, 2006. Last update: Viewed Available from: <http://www.liggettvectorbrands.com/>.

Food and Agriculture Organization of the United Nations. Projections of tobacco production, consumption and trade to the year 2010. Rome: FAO, 2003. Available from:
<ftp://ftp.fao.org/docrep/fao/006/y4956e/y4956e00.pdf>.

10.15.4 Tobacco production and climate change

Azizuddin, K. All 'climate benchmarks' must exclude tobacco, controversial weapons and Global Compact violators, say European policymakers. *Responsible Investor*, 2020. July 20, 2020. Retrieved from <https://www.responsible-investor.com/articles/all-climate-benchmarks-must-exclude-tobacco-controversial-weapons-and-global-compact-violators-eu>