

Antimicrobial Actions of Brazilian & Peruvian Peppertrees *Schinus molle* & *Schinus terebinthifolius*

- Ribeiro, A., et al. "Pink pepper essential oil (*Schinus terebinthifolius* Raddi): chemical composition, antimicrobial activity against foodborne pathogens, microencapsulation, biopreservation and sensorial acceptance in Minas Frescal cheese." *J. Food Sci. Technol.* 2025 Nov; 62(11): 2155-2164.
- Hoang, L., et al. "New protostane triterpenoids and their bioactivities from the fruits of *Schinus terebinthifolius*." *J. Nat. Med.* 2025 Nov; 79(6): 1273-1287.
- Cadena Viteri, C., et al. "In vitro evaluation of the effectiveness of *Schinus molle* essential oil against *Candida albicans*: resistant and sensitive strains." *Rev. Cient. Odontol.* (Lima). 2025 Aug; 13(3): e248.
- Oses, R., et al. "Exploring the bioactive potential and chemical profile of *Schinus molle* essential oil: an integrated *in silico* and *in vitro* evaluation." *Plants* (Basel). 2025 Aug; 14(15): 2449.
- Tabti, S., et al. "Antibacterial and QS inhibition by *Schinus molle* essential oil: chemical profiling and docking against *S. aureus*." *Clin. Lab.* 2025 Aug; 71(8).
- Roeschlin, R., et al. "Botanical-based strategies for controlling *Xanthomonas spp.* in cotton and citrus: *in vitro* and *in vivo* evaluation." *Plants* (Basel). 2025 Mar; 14(6): 957.
- Figueiredo Filho, C., et al. "Intravenous meropenem and intraperitoneal use of 10% aqueous extract of *Schinus terebinthifolius* Raddi (Anacardiaceae) in elderly rats after induction of autogenous fecal peritonitis." *Acta Cir. Bras.* 2025 Jan; 40: e400325.
- Figueiredo Filho, C., et al. "Peritoneal histopathological changes and cultures after autogenous fecal peritonitis induced in elderly rat model: response to intravenous use of meropenem and intra-abdominal inoculation of 10% aqueous extract of *Schinus terebinthifolius* Raddi (Anacardiaceae)." *Acta Cir. Bras.* 2024 Dec; 40: e400125.
- Pereira, J. et al. "Exploring the antiparasitic and antimicrobial potential of *Schinus terebinthifolius* Raddi essential oil against fish and shrimp pathogens." *J. Fish Dis.* 2024 Nov; 47(11): e14010.
- da Silva, A., et al. "Antileishmanial and antifungal activities of volatile oils from *Cinnamomum cassia* bark and *Schinus molle* leaves." *Chem. Biodivers.* 2024 Sep; 21(9): e202401076.
- Lima, M., et al. "Use of cerrado plants as an alternative in the control of bacterial contamination in the alcoholic fermentation process." *Braz. J. Biol.* 2024 Apr; 84: e281448.
- Oliveira, K., et al. "Essential oil from the leaves, fruits and twigs of *Schinus terebinthifolius*: chemical composition, antioxidant and antibacterial potential." *Molecules.* 2024 Jan; 29(2): 469.
- İlgün, S., et al. "Assessment of phenolic composition, antioxidant potential, antimicrobial properties, and antidiabetic activity in extracts obtained from *Schinus molle* L. leaves and fruits." *Front. Biosci.* 2023 Dec; 28(12): 353.

İlgün, S., et al. "Assessment of phenolic composition, antioxidant potential, antimicrobial properties, and antidiabetic activity in extracts obtained from *Schinus molle* L. leaves and fruits." *Front. Biosci.* 2023 Dec; 28(12): 353.

Nyambo, K., et al. "In-silico and in-vitro assessments of some Fabaceae, Rhamnaceae, Apocynaceae, and Anacardiaceae species against *Mycobacterium tuberculosis* H37Rv and triple-negative breast cancer cells." *BMC Complement. Med. Ther.* 2023 Jul; 23(1): 219.

Costa da Silva, M., et al. "Antibiotic-potentiating activity of the *Schinus terebinthifolius* Raddi essential oil against MDR bacterial strains." *Plants* (Basel). 2023 Apr; 12(8): 1587.

Inácio Silveira, D., et al. "Natural products for the treatment of denture stomatitis: A systematic review." *J. Prosthet. Dent.* 2023 Mar; 129(3): 413-424.

Almeida-Silva, F., et al. "In vitro activity of *Schinus terebinthifolius* extract and fractions against *Sporothrix brasiliensis*." *Mem. Inst. Oswaldo Cruz.* 2022 Sep; 117: e220063.

Salles, T., et al. "Chemical composition and anti-Mayaro virus activity of *Schinus terebinthifolius* fruits." *Virusdisease.* 2021 Sep; 32(3): 526-534.

Loyola, D., et al. "Ethanol extract of *Schinus molle* L. (Molle) and *Erythroxylum coca* Lam (Coca): Antibacterial properties at different concentrations against *Streptococcus mutans*: An in vitro study." *J. Int. Soc. Prev. Community Dent.* 2020 Sep; 10(5): 579-584.

Linden, M., et al. "Effects of structural differences on the antibacterial activity of biflavonoids from fruits of the Brazilian peppertree (*Schinus terebinthifolius* Raddi)." *Food Res. Int.* 2020 Jul; 133: 109134.

Oliveira, M., et al. "*Schinus terebinthifolius* Raddi extracts: From sunscreen activity toward protection of the placenta to Zika virus infection, new uses for a well-known medicinal plant." *Ind. Crops Prod.* 2020 Sep; 152: 112503.

Turchetti, G., et al. "Antimicrobial testing of *Schinus molle* (L.) leaf extracts and fractions followed by GC-MS investigation of biological active fractions." *Molecules.* 2020 Apr; 25(8): 1977.

do Prado, A., et al. "*Schinus molle* essential oil as a potential source of bioactive compounds: antifungal and antibacterial properties." *J. Appl. Microbiol.* 2019 Feb; 126(2): 516-522.

Dos Santos da Rocha, P., et al. "Microbiological quality, chemical profile as well as antioxidant and antidiabetic activities of *Schinus terebinthifolius* Raddi." *Comp. Biochem. Physiol. C. Toxicol. Pharmacol.* 2019 Jun; 220: 36-46.

Arpini, C., et al. "*Purpuricillium lilacinum* infection in captive loggerhead sea turtle hatchlings." *Med. Mycol. Case Rep.* 2018 Oct; 23: 8-11.

Mummed, B., et al. "In vitro antibacterial activity of selected medicinal plants in the traditional treatment of skin and wound infections in eastern Ethiopia." *Biomed. Res. Int.* 2018 Jul; 2018: 1862401.

Salem, M., et al. "Antibacterial activity of extracted bioactive molecules of *Schinus terebinthifolius* ripened fruits against some pathogenic bacteria." *Microb. Pathog.* 2018 Jul; 120:

119-127.

Ennigrou, A., et al. "Assessing the fatty acid, essential oil composition, their radical scavenging and antibacterial activities of *Schinus terebinthifolius* Raddi leaves and twigs." *J. Food Sci. Technol.* 2018 Apr; 55(4): 1582-1590.

da Silva, J., et al. "Anti-*Escherichia coli* activity of extracts from *Schinus terebinthifolius* fruits and leaves." *Nat. Prod. Res.* 2018 Jun; 32(11): 1365-1368.

Cairo, P., et al. "Effects of dietary supplementation of red pepper (*Schinus terebinthifolius* Raddi) essential oil on performance, small intestinal morphology and microbial counts of weanling pigs." *J. Sci. Food Agric.* 2018 Jan; 98(2): 541-548.

Torres, K., et al. "Activity of the aqueous extract of *Schinus terebinthifolius* Raddi on strains of the *Candida* genus." *Rev. Bras. Ginecol. Obstet.* 2016 Dec; 38(12): 593-599.

Pellegrini, M., et al. "Antimicrobial activity, and mode of action of essential oils against *Paenibacillus* larvae, etiological agent of American foulbrood on *Apis mellifera*." *Chem. Biodivers.* 2017 Apr; 14(4).

Nocchi, S., et al. "*In vitro* cytotoxicity and anti-*Herpes simplex* virus type 1 activity of hydroethanolic extract, fractions, and isolated compounds from stem bark of *Schinus terebinthifolius* Raddi." *Pharmacogn. Mag.* 2016 Apr-Jun; 12(46): 160-4.

Biasi-Garbin, R., et al. "Antifungal potential of plant species from Brazilian caatinga against dermatophytes." *Rev. Inst. Med. Trop. Sao Paulo.* 2016; 58: 18.

Elshafie, H., et al. "An *in vitro* attempt for controlling severe phytopathogens and human pathogens using essential oils from Mediterranean plants of genus *Schinus*." *J. Med. Food.* 2016 Mar; 19(3): 266-73.

Tonial, F., et al. "Influence of culturing conditions on bioprospecting and the antimicrobial potential of endophytic fungi from *Schinus terebinthifolius*." *Curr. Microbiol.* 2016 Feb; 72(2): 173-183.

D'Sousa Costa, C., et al. "Phytochemical screening, antioxidant and antibacterial activities of extracts prepared from different tissues of *Schinus terebinthifolius* Raddi that occurs in the coast of Bahia, Brazil." *Pharmacogn. Mag.* 2015 Jul-Sep; 11(43): 607-14.

Cole, E., et al. "Chemical composition of essential oil from ripe fruit of *Schinus terebinthifolius* Raddi and evaluation of its activity against wild strains of hospital origin." *Braz. J. Microbiol.* 2014 Oct; 45(3): 821-8.

Melo, M., et al. "Alcohol extract of *Schinus terebinthifolius* Raddi (Anacardiaceae) as a local antimicrobial agent in severe autogenously fecal peritonitis in rats." *Acta Cir. Bras.* 2014; 29 Suppl 1: 52-6.

Vieira, D., et al. "Plant species used in dental diseases: ethnopharmacology aspects and antimicrobial activity evaluation." *J. Ethnopharmacol.* 2014 Sep; 155(3): 1441-9.

Barbieri, D., et al. "Antiadherent activity of *Schinus terebinthifolius* and *Croton urucurana* extracts on *in vitro* biofilm formation of *Candida albicans* and *Streptococcus mutans*." *Arch. Oral*

Biol. 2014 Sep; 59(9): 887-96.

Martins, R., et al. "Antioxidant, antimicrobial and toxicological properties of *Schinus molle* L. essential oils." *J. Ethnopharmacol.* 2014; 151(1): 485-92.

Freires Ide, A., et al. "A randomized clinical trial of *Schinus terebinthifolius* mouthwash to treat biofilm-induced gingivitis." *Evid. Based Complement. Alternat. Med.* 2013; 2013: 873907.

Guerra-Boone L., et al. "Chemical compositions and antimicrobial and antioxidant activities of the essential oils from *Magnolia grandiflora*, *Chrysactinia mexicana*, and *Schinus molle* found in northeast Mexico." *Nat. Prod. Commun.* 2013 Jan; 8(1): 135-8.

Alves L., et al. "Effect of *Schinus terebinthifolius* on *Candida albicans* growth kinetics, cell wall formation and micromorphology." *Acta Odontol. Scand.* 2013 May-Jul; 71(3-4): 965-71.

Gomes, F., et al. "Antimicrobial lectin from *Schinus terebinthifolius* leaf." *J. Appl. Microbiol.* 2013 Mar; 114(3): 672-9.

Rocha, P., et al. "Synergistic antibacterial activity of the essential oil of aguaribay (*Schinus molle* L.)." *Molecules.* 2012 Oct 12; 17(10): 12023-36.

Montanari, R., et al. "Exposure to Anacardiaceae volatile oils and their constituents induces lipid peroxidation within food-borne bacteria cells." *Molecules.* 2012 Aug; 17(8): 9728-40.

Moura-Costa, G., et al. "Antimicrobial activity of plants used as medicinals on an indigenous reserve in Rio das Cobras, Paraná, Brazil." *J Ethnopharmacol.* 2012 Sep; 143(2): 631-8.

Leite, S., et al. "Randomized clinical trial comparing the efficacy of the vaginal use of metronidazole with a Brazilian pepper tree (*Schinus*) extract for the treatment of bacterial vaginosis." *Braz. J. Med. Biol Res.* 2011 Mar; 44(3): 245-52.

Johann, S., et al. "Antifungal activity of schinol and a new biphenyl compound isolated from *Schinus terebinthifolius* against the pathogenic fungus *Paracoccidioides brasiliensis*." *Ann. Clin. Microbiol. Antimicrob.* 2010 Oct 12; 9: 30.

Pereira, E., et al. "In vitro antimicrobial activity of Brazilian medicinal plant extracts against pathogenic microorganisms of interest to dentistry." *Planta Med.* 2011 Mar; 77(4): 401-4.

Johann, S., et al. "Antifungal activity of extracts of some plants used in Brazilian traditional medicine against the pathogenic fungus *Paracoccidioides brasiliensis*." *Pharm. Biol.* 2010 Apr; 48(4): 388-96.

Johann, S., et al. "Antifungal activity of schinol and a new biphenyl compound isolated from *Schinus terebinthifolius* against the pathogenic fungus *Paracoccidioides brasiliensis*." *Ann. Clin. Microbiol. Antimicrob.* 2010; 9: 30.

Salazar-Aranda, R., et al. "Antimicrobial and Antioxidant Activities of Plants from Northeast of Mexico" *Evid Based Complement Alternat Med.* 2011; 2011: 536139.

El-Massry, K., et al. "Chemical compositions and antioxidant/antimicrobial activities of various samples prepared from *Schinus terebinthifolius* leaves cultivated in Egypt." *J. Agric. Food Chem.* 2009 Jun; 57(12): 5265-70.

Hayouniel, A., et al. "Tunisian *Salvia officinalis* L. and *Schinus molle* L. essential oils: their

chemical compositions and their preservative effects against *Salmonella* inoculated in minced beef meat." *Int. J. Food Microbiol.* 2008 Jul; 125(3): 242-51.

Molina-Salinas, G., et al. "Evaluation of the flora of Northern Mexico for *in vitro* antimicrobial and antituberculosis activity." *J. Ethnopharmacol.* 2007 Feb; 109(3): 435-41.

de Lima, M., et al. "Anti-bacterial activity of some Brazilian medicinal plants." *J. Ethnopharmacol.* 2006 Apr; 105(1-2): 137-47.

Schmourlo, G., et al. "Screening of antifungal agents using ethanol precipitation and bioautography of medicinal and food plants." *J. Ethnopharmacol.* 2005 Jan; 96(3): 563-8.

de Carvalho, M. C. "Evaluation of mutagenic activity in an extract of pepper tree stem bark (*Schinus terebinthifolius* Raddi)." *Environ. Mol. Mutagen.* 2003; 42(3): 185-91.

de Melo, E., et al. "Medicinal plants in the healing of dry socket in rats: Microbiological and microscopic analysis." *Phytomedicine.* 2002; 9(2): 109-16.

Quiroga, E., et al. "Screening antifungal activities of selected medicinal plants." *J. Ethnopharmacol.* 2001; 74(1): 89-96.

Camano, R. "Essential oil composition with bactericide activity." United States patent 5,635,184; June 3, 1997.

Camano, R. "Method for treating bacterial infections." United States patent 5,512,284; April 30, 1996.

Martinez, M., et al. "Screening of some Cuban medicinal plants for antimicrobial activity." *J. Ethnopharmacol.* 1996; 52(3): 171-74.

Cuella, M., et al. "Two fungal lanostane derivatives as phospholipase A2 inhibitors." *J. Nat. Prod.* 1996; 59(10): 977-79.

Gundidza, M., et al. "Antimicrobial activity of essential oil from *Schinus molle* Linn." *Central African J. Med.* 1993; 39(11): 231-34.

Dikshit, A. "*Schinus molle*: a new source of natural fungitoxicant." *Appl. Environ. Microbiol.* 1986; 51(5): 1085-88.

El-Keltawi, N., et al. "Antimicrobial activity of some Egyptian aromatic plants." *Herba Pol.* 1980; 26(4): 245-50.

Ross, S., et al. "Antimicrobial activity of some Egyptian aromatic plants." *Fitoterapia.* 1980; 51: 201-5.

Simons, J., et al. "Succulent-type as sources of plant virus inhibitors." *Phytopathology.* 1963; 53: 677-83.

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