

61. *BUXUS SEMPERVIRENS* L. (BUXACEAE) — Boxwood

Ornamental hedge, very popular, since Caesar's time, for topiary. Wood hard, heavy, used for musical instruments, pipes, wearing better than many metals. Decoction of leaves and bark once promoted as hair growth stimulant; boiled with lye and used to tint the hair auburn. Boxwood is said to have been used as a substitute for hops in France. Leaves make a good green manure for hops.

Oil from the wood used as a cancer treatment in Belgium.⁴ Contains the alkaloid cycloprotobuxine, which shows antitumor activity in PS-145 and WA tumor systems.¹⁰ Leaves sometimes used to adulterate uva-ursi.⁸ Wood considered cholagogue, depurative, diaphoretic, diuretic, febrifuge, laxative, narcotic, sedative, and vermifuge, given in decoction as an alterative for gout, malaria, rheumatism, and secondary syphilis. Used as a substitute for guaiacum in treating venereal diseases where sudorifics are advisable. Narcotic and sedative in full doses, emeto-cathartic, possibly fatally so, and convulsant in overdoses.² Tincture once used for leprosy and malaria. Volatile oil from the wood used for epilepsy, hemorrhoids, and toothache. Leaves alterative, cathartic, sudorific, and vermifuge, powdered leaves have been applied to botworms in horses; though the mixture is poisonous, it is said to improve the horse's coat.

Contains a butyraceous volatile oil and the alkaloids buxine (similar to berberine), cycloprotobuxine, parabuxine, and parabuxonidine (active in the PS and WA tumor systems).¹⁰ Other alkaloids reported include bebeerine, bebuxine, buxalphine, buxamine, buxaminol, buxandrine, buxanine, buxarine, buxatine, buxazidine, buxazine, buxdeltine, buxenine, buxenone, buxeridine, buxetine, buxidene, buxomegine, buxpiine, buxpsiine, buxtauine, cyclobuxine, cyclobuxonine, cyclovirobuxine, dihydrocyclobuxine, dimethylcyclobuxine, dimethylcyclovirobuxine, isochondodendrine, methylcycloprotobuxine, norbuxamine, parabuxine, and parabusonidine.

Toxicity — Leaves said to have caused fatalities in grazing animals.¹ Toxic symptoms include collapse, cramps, diarrhea, nausea, shakes, and vertigo.³³

To the physician — For poisonings, Hardin and Arena³⁴ suggest gastric lavage or emesis and symptomatic treatment. Acute facial dermatitis has followed application to the scalp to treat baldness. Juice of the plants can cause irritation and itch.⁶ The alkaloid buxine can contribute to respiratory failure in humans.¹¹