

Many alkaloids are reported from this species: 1,2-dehydroaspidospermidine, eburnamenine, eburnamine, eburnamonene, epivincamine, 14-epivincamine, isoburnamine, isovincarnine, methoxyminovincine, 16-methoxy-20-oxo-1-vin-cadiformine, methoxyvincamine, *N*-methylaspidospermidine, minorine, minovincine, minovincine, minovine, perivincine, pubescine, quebrachamine, reserpine, strictamine, vincadiformine, vincadine, vincamidine, vincamine (0.062 to 0.168% in cultivars, 0.033 to 0.073 in wild), vincaminine, vincaminoridine, vincaminorine, vincarorine, vincine, vincinine, vincoridine, vincorine, vinine, vinoxine, and vintsine. The alkaloidal content of the leaves, according to Hungarian analyses, varied from 0.11 to 7.06% (dry matter), and vincamine content from 0.02 to 1.75% (also dry matter). The total alkaloidal content of the roots from different countries varied from 1.24 to 1.98%. Nonalkaloidal constituents include a number of acids, 1-glutamate carboxylase (leaves), 1-bornesitol and the enzyme forming the same, dambonitol, ornil, phenols, rubber (2.0 to 2.2% in the plant; 1.1% in the leaves), ursolic acid (0.24 to 1.34% in the plant; 0.14 to 3.7% in the leaves), beta-sitosterol, saponin, 3-beta-D-glucosyloxy-2-hydroxybenzoic acid (leaves, an amorphous and bitter but odorless glucoside called vincoside, 1%), flavonoid glycosides including robinin (present in the flowers, 0.4%) and delphinidin-3,5-diglycoside.¹ The decoction contains tannin. The leaf ash yields the glucoside C-beta-*d*-glucosyloxy-2-hydroxybenzoic acid as well as ursolic acid. Flowers yield 0.4% robinoside. Leaves contain the anticancer agent beta-sitosterol.

Toxicity — Although clearly a biologically active species belonging to a dangerous family, this periwinkle has been little cited as an allergic or toxic plant!