

188. *JUNIPERUS COMMUNIS* L. (CUPRESSACEAE) — Common Juniper

Berries of *J. communis* contain 0.2 to 3.42% volatile oil, the principle flavoring agent in gin. Those who prefer the taste of gin (but the price of vodka) might upgrade cheap vodka by steeping a berry or two. The berries are also used in alcoholic bitters. Extracts and oils are used in most food categories, including alcoholic and nonalcoholic beverages, frozen dairy desserts, candy, baked goods, gelatins, puddings, meat, and meat products. Highest average maximum use level reported for the oils is 0.006% in alcoholic beverages and 0.01% for the extract in alcoholic and nonalcoholic beverages.²⁹ The oil is a fragrance component in soaps, detergents, creams, lotions, and perfumes (maximum use level 0.8%). Swedes make a “wholesome” beer from cedar. In hot climates, the incised tree yields a gum or varnish.² With some hyperbole, Kloss states that juniper berries are excellent as a spray or fumigation in a room in which there has been a patient with an infectious disease, “as it thoroughly destroys all fungi.”⁴⁴ Deer and moose graze the plant. Sheep readily eat the fruit.² Used as a spice in pickled fish, kraut, and gravies.

Berries, wood, and oil are used in folk remedies for cancer, indurations, polyps, swellings, tumors, and warts.⁴ Reported to be carminative, cephalic, deobstruent, depurative, diaphoretic, digestive, diuretic, emmenagogue, stimulant, and sudorific, juniper is a folk remedy for arteriosclerosis, arthritis, blenorhea, bronchitis, cancer, cholecystosis, colic, dropsy, dysentery, dyspepsia, dyspnea, gastroenterosis, gleet, gonorrhoea, gout, gravel, hysteria, leucorrhoea, lumbago, lungs, nephrosis, pyelitis, renal calculus, rheumatism, rhinitis, scrofula, skin, snakebite, tenesmus, tuberculosis, tumors, worms, and urogenital and venereal diseases.^{2 28,32} If juniper really does prevent uric acid build-up, and red wine is really bad for gout, perhaps gout sufferers might try juniper tea (or maybe even a martini) in lieu of red wine! Remember, though, that all alcohol is bad for gout.

Berries contain 0.2 to 3.42% (usually 1 to 2%) volatile oil, depending on the geographic location, altitude, degree of ripeness, and other factors; sugars (glucose and fructose); glucuronic acid; L-ascorbic acid; resin (circa 10%); gallotannins; geijerone (a C₁₂ terpenoid); 1,4-dimethyl-3-cyclohexen-1-yl methyl ketone; diterpene acids (myrceocommunic, *cis*- and *trans*-communic, sandaracopimaric, isopimaric, torulosic acids, etc.); beta-elemen-7 alpha-ol; and others. The volatile oil is composed mainly of monoterpenes (circa 58%) which include alpha-pinene, myrcene, and sabinene as the major components, with limonene, *p*-cymene, gamma-terpinene, beta-pinene, alpha-thujene, camphene, and others also present in minor amounts; small amounts of sesquiterpenes; 1,4-cineole; terpinen-4-ol; esters; and others.²⁹ Dry seeds contain 30.9% protein and 53.9% fat.²¹

Toxicity — The diuretic principle is 4-terpineol or terpinen-4-ol, excessive doses of which may produce kidney irritation. Juniper and extracts should not be used by expectant mothers because they increase intestinal movements and uterine contractions. “This drug is no longer recommended for various kidney disorders by the medical profession. Since much safer and more effective diuretic and carminative drugs exist, the use of juniper in folk medicine should also be abandoned.”³⁷ Symptoms of external poisoning caused by the essential oil on the skin include burning, redness, inflammation with blisters, and swelling. Internally, symptoms are from overdose, pain in or near the kidney, strong diuresis, albuminuria, hematuria, purplish urine, accelerated heartbeat and blood pressure, and, rarely, convulsive apparitions, metrorrhagia, and, more rarely, abortion.³³