

358. *VANILLA PLANIFOLIA* Andr. (ORCHIDACEAE) — Vanilla

Pods the source of commercial vanilla. Vanilla is said to alleviate the sweet tooth of obese people fearing dental caries, the vanilla extract cutting back on the sugar requirement for fresh fruit salads in reducing diets, the catechin said to curb caries. Vanilla extract is used to flavor beverages, cakes, chocolates, confections, custards, ice creams, and puddings, and in perfumes, sachet powders, and soap. Highest maximum use level is nearly 10,000 ppm for vanilla in baked goods.²⁹ Vanilla has served in poison baits for fruitflies, grasshoppers, and melon beetles.¹

Reported to be aphrodisiac, carminative, stimulant, and vulnerary. Venezuelans use the pods against fevers and spasms. Yucatanese use vanilla extract (pod steeped in alcohol) as aphrodisiac and stimulant; Argentinians as an antispasmodic, aphrodisiac, or emmenagogue.⁴² In Palau, vanilla is used for dysmenorrhea, fever, and hysteria.¹⁶ Vanillin is choleric.³³ Vanilla is said to inhibit caries, probably because of the catechin.

Per 100 g, the beans are reported to contain 25.9 to 30.9 g H₂O, 2.6 to 4.9 g protein, 4.7 to 6.7 g fat, 30.5 to 32.9 g N-free extract, 7.1 to 9.1 g sugar, 15.3 to 19.6 g fiber, 4.5 to 9.7 g ash. Purseglove et al. dedicate more than four pages of tabulations to the chemistry of vanilla.⁶⁴ Cured pods contain anisic acid, anisaldehyde, glucovanillin, vanillic acid, and vanillin.⁴² *Hager's Handbook* adds vanillyl alcohol, protocatechualdehyde, protocatechuic acid, *p*-hydroxybenzaldehyde, piperonal, anisalcohol, balsam, sugar (15% glucose and fructose, 35% saccharose) enzyme, fatty oil (glycerides of oleic-, palmitic-, and stearic-acid), tannin, resin, mucilage, essential oil, citric-, malic-, oxalic-, and tartaric-acids.³³ The aroma compounds include *p*-hydroxybenzylalcohol, acetaldehyde, diacetyl, furfural, 2.5-methylfurfural, benzaldehyde, acetophenone, acetic acid, isobutyric-, caproic-, isovalerianic-, benzoic-, and anisic-acid, guaiacol, *p*-cresol, *n*-capric acid, *n*-caprylic acid, benzyl benzoate, etc.³³

Toxicity — The calcium oxalate crystals in the plant may cause dermatitis.¹ Workers with vanilla may exhibit dermatitis, headache, and insomnia, all symptoms of vanillism.⁶⁴ Several toxic compounds are present in minor quantity. GRAS § 182.10, 182.20, and 169.3.²⁹