

possesses insecticidal and insect repellent properties, effective against house flies and mosquitoes.<sup>221</sup> In the Mediterranean region, basil was grown on unscreened windows to repel flies. Laid over tomatoes, basil is said to repel fruit flies. Basil is used in hair pomades by the Africans.<sup>1</sup> It is bactericidal against *Salmonella typhosa*. Chinese recommended basil plantings to keep down odors of manure; perhaps basil should be considered as an intercrop with tomatoes on farms fertilized with sewage sludge.<sup>41</sup>

Reported to be antispasmodic, alexiteric, anodyne, aphrodisiac, carminative, cyanogenetic, demulcent, diaphoretic, digestive, diuretic, expectorant, lactagogue, laxative, pectoral, refrigerant, sedative, stimulant, stomachic, and sudorific, basil is a folk remedy for alcoholism, anasarca, boredom, catarrh, cephalalgia, childbirth, cholera, colic, collapse, constipation, convulsion, cough, cramps, croup, deafness, delirium, depression, diarrhea, dropsy, dysentery, earache, enteritis, epilepsy, fever, flu, frigidity, gastroenteritis, gonorrhea, gout, gravel, halitosis, headache, hemiplegia, hiccup, hysteria, infection, inflammation, insanity, insect bites, labor, migraine, nausea, nephrosis, nerves, piles, paralysis, polyps, ringworm, snakebite, sinusitis, sores, sore throat, spasm, stings, stomach, throat, toothache, tumors, urinary ailments, wart, whooping cough, and worms.<sup>32</sup> An infusion of the plant is taken for halitosis, headache, and gout. Leaf juice allays irritation of the throat. It is applied to ringworm and snuffed for earache. In the Philippines, the leaves are poulticed onto fungal infections. Poultices of the seeds are applied to sores and sinuses.<sup>127</sup> Aqueous extracts of the seeds are active against Gram-positive bacteria and mycobacteria. In Salvador, placed in the ears to cure deafness.<sup>9</sup> Used in India as a nasal douche in myosis.<sup>5</sup> Leaves are used as a cataplasm for tumors. Hot baths with twigs are said to cure cancer of the stomach. The decoction from the whole plant is said to remedy nasal polyps.<sup>4</sup> A handful of leaves steeped in wine yields a digestive tonic. Seeds considered aphrodisiac, demulcent, diaphoretic, diuretic, refrigerant, and stimulant. Seeds given internally for constipation and piles, and used in poultices for sores and sinuses. In Malaya the leaf decoction may be administered after childbirth, and the juice may be taken if the menses are delayed. Expressed use of leaves said to expel worms and cure ringworm (a fungus). Seeds in water are administered to kidney ailments in India.

Contains eucalyptol, estragol, 1,8-cineol, eugenol, borneol, ocimene, geraniol, anethole, 10-cadinols, beta-carophyllene, alpha-terpinole, camphor, 3-octanone, methyl eugenol, safrol, sesquithujene, 1-epibicyclosequiphellandrine, linalool, and methyl chavicol.<sup>29 33</sup> Basil seeds yield a mucilage which on hydrolysis yields uronic acid, glucose, xylose, and rhamnose. Methylcinnamate may dominate the oil of some chemovars. The drying oil of the seed contains 7.0% palmitic, 0.2% stearic, 11.0% oleic, 60.0% linoleic, and 21% linolenic acids. The unsaponifiable fraction is said to contain beta-sitosterol, oleonolic, and ursolic acid. Per 100 g, the leaves are reported to contain 43 calories, 86.5 g H<sub>2</sub>O, 3.3 g protein, 1.2 g fat, 7.0 g total carbohydrate, 2.0 g fiber, 2.0 g ash, 320 mg Ca, 38 mg P, 4.8 mg Fe, 12 mg Na, 429 mg K, 4500 µg β-carotene equivalent, 0.08 mg thiamine, 0.35 mg riboflavin, 0.80 mg niacin, and 27 mg ascorbic acid. Bowers and Nishida<sup>222</sup> isolated and identified two agents, juvocimene 1 and juvocimene 2, from the oil, with highly potent insect juvenile hormone activity. The compounds resulted in a dose-dependent inhibition of metamorphosis in *Oncopeltus fasciatus*. Per 100 g, ground basil is reported to contain 250 calories, 6.4 g H<sub>2</sub>O, 14.4 g protein, 4.0 g fat, 61.0 g total carbohydrate, 17.8 g fiber, 14.3 g ash, 2113 mg Ca, 490 mg P, 42 mg Fe, 422 mg Mg, 34 mg Na, 3433 mg K, 5.8 mg Zn, 9375 IU vitamin A, 0.15 mg thiamine, 0.32 mg riboflavin, 6.9 mg niacin, and 61.2 mg ascorbic acid; of the amino acids, there are 211 mg tryptophan, 588 threonine, 588 isoleucine, 1078 leucine, 618 lysine, 202 methionine, 159 cystine, 733 phenylalanine, 432 tyrosine, 717 valine, 622 arginine, 287 histidine, 747 alanine, 1696 aspartic acid, 1565 glutamic acid, 690 glycine, 588 proline, and 561 mg serine.<sup>39</sup> There are 106 mg phytosterols.

**Toxicity** — Leaf juice said to be slightly narcotic.<sup>1</sup> Two carcinogens, saffrole and estragole (methyl chavicol), are reported in some sweet basil oils.<sup>29</sup>