

266. *PHYTOLACCA AMERICANA L. (PHYTOLACCACEAE)* — *Poke, Pokeweed, Scoke*

Young shoots, 15 to 20 cm tall, used for greens or potherbs when thoroughly cooked and the water discarded. Plant becomes poisonous as it matures. Roots, leaves, and berries are poisonous. Poultry eat the berries; large quantities give the flesh an unpleasant flavor causing it to become purgative when eaten. Poke greens, called "poke salet", are commercially canned in northern Kentucky and southern Ohio. Pennsylvania Dutch use berries for ink and to color wines (the latter practice has been discontinued because of poisonous effects). Indians used the powdered root to treat cancer and early settlers applied the berry juice to cancerous skin ulcers. The juice, as an unguent, is said to alleviate cancer. The root, used in an ointment or decoction, is used to treat cancer and tumors. An ointment or a cataplasm derived from the leaf is said to aid cancer.⁴ Leaf juice with gunpowder was one old cancer nostrum.⁴⁶ Pamunkey Indians drank tea of the berries for rheumatism.¹¹ Medicinally, poke root is sliced and dried, and considered by some a valuable remedy for catarrh, dysmenorrhea, dyspepsia, granular conjunctivitis, laryngitis, mumps, rheumatism, ringworm, scabies, syphilis, tonsillitis, and ulcers. Berries have a milder action and are relatively nonpoisonous except for children. In Appalachia dried fruits used as poultice on sores. Morton⁴⁶ reports dangerous treatments for hemorrhoids, topical application of macerated leaves, or repeated enemas with a strong leaf injection. Poke is alterative, cathartic, emetic, laxative, slightly narcotic, nervine, and stimulant. It is also a slow-acting emetic and purgative. In Spain a pomade made of roots is used to treat skin eruptions, skin rash, and ringworms. Decoction of roots used for drenching cattle. Often used to adulterate belladonna; said to help various types of headaches. I think Tyler's hyperbole might help spare another pokeweed incident. "Pokeweed is not therapeutically useful for anything."³⁷

Hager's Handbook lists caryophyllene, phytolaccanin (betanine, which hydrolyzes to betanidine and isobetanidine), isobetanine, isoprebetanine, and prebetanine; salts of phytolaccic acid. Phytolaccin is the active principle in all parts of the plant. A sapogenin, phytolaccagenin acts as a powerful molluscicide and parasiticide. Per 100 g, the shoots are reported to contain 23 calories, 91.6 g H₂O, 2.6 g protein, 0.4 g fat, 3.7 g total carbohydrate, 1.7 g ash, 53 mg Ca, 44 mg P, 1.7 mg Fe, 5220 µg β-carotene equivalent, 0.08 mg thiamine, 0.33 mg riboflavin, 1.2 mg niacin, and 136 mg ascorbic acid. Gums, resins, tannins, and waxes are also reported.²⁷ The seed oils contain 12.5% saturated acids, 49% mono-acids, and 37.5% di-acids.

Toxicity — The FDA⁶² classifies this as an herb of undefined safety, adding that it "contains an acidic steroid saponin. Emetic action is slow but of long duration. Narcotic effects have been observed." It has been employed internally in chronic rheumatism but is not therapeutically useful and is no longer prescribed. Overdoses have sometimes been fatal. Because poke is mitogenic, handlers should wear gloves.¹¹ The proteinaceous mitogen PWM may produce blood cell abnormalities when absorbed.³² Dust of the dried root irritates the eye and induces sneezing.⁶ The roots and seeds are especially toxic, due to triterpene saponins (especially phytolaccigenin).¹¹ Tierra says, "Poke root contains toxic mitogenic substances and therefore must be used in small quantities, not to exceed about one gram per day."²⁸ I think 1 g is too much! Hardin and Arena³⁴ recall attending to a 5-year-old girl who died from ingesting poke berries, crushed and added to water to simulate grape juice.

To the physician — For poisoning, they recommend gastric lavage or emesis and symptomatic and supportive treatment. "Children have died and adults have been hospitalized from the gastroenteritis, hypotension, and diminished respiration caused by eating pokeweed or the berries or leaves . . ."³⁷ In 1981¹⁴⁴ there was a mass poisoning of New Jersey campers from eating the young leaves, picked, boiled, drained, and reboiled, "a method that reputedly ensures the plant's edibility." Sixteen (31%) of the 51 interviewed met the case definition (vomiting accompanied by any three of the following: nausea, diarrhea, stomach cramps,