

Perilla mint *Perilla frutescens*



Annual herb, 0.2 to 0.6 m tall; stems four-sided and freely branched. Leaves opposite, purple or green, ovate, 5 to 13 cm long, 4 to 10 cm wide, coarsely serrate, with a strong pungent odor when crushed (also true of stems). Flowers small, white to purple, with a ring of hairs in the throat of the five-lobed corolla; borne in terminal panicles or singly in the axils of leaves. Found throughout the South; mostly in pastures and fields, along roadsides, about homesites, and in waste places. [Inset: portion of four-sided stem]

Toxicity

This toxic plant contains “perilla ketone,” which produces pulmonary edema and pleural effusion in a variety of animals. Toxic cases are seen sporadically, usually in the late summer or fall after grazing of the plant, most often in cattle and horses. May account for birth defects in calves when hay containing perilla mint is fed to cows early in the gestation period.

Symptoms

Affected animals exhibit respiratory distress. They have difficulty breathing especially when exhaling. They may grunt when exhaling and may have a nasal discharge and an elevated temperature; friction sounds occur through the chest wall.

Postmortem examination reveals pulmonary emphysema and edema. The perilla mint seeds are often found in the rumen of the cow.

Treatment

Once symptoms of severe pulmonary edema and emphysema occur, treatment is usually ineffective. Try injections of antihistamines, steroids, and antibiotics. Handle cattle quietly to prevent further respiratory complication and subsequent death.