



White Snakeroot

Eupatorium rugosum

White snakeroot is an erect, **opposite**-branching, herbaceous perennial growing to 1 to 4 feet tall. It arises from a fibrous root crown that may have short rhizomes. The slender, round stems tend to be purplish, especially when growing in the open.

The opposite leaves have three distinct veins and coarsely toothed margins. Small clusters of white flowers are produced at the ends of the branches.

Distribution and habitat

White snakeroot is most frequently found in wooded areas, but may persist after clearing.

Dense populations are found on the floors, slopes and walls of Hill Country canyons with northern exposures. These plants are found in east, southeast and north central Texas. Regions: 1, 2, 3, 4, 7.

Toxic agent

The toxic agent of white snake-root is tremetone, which affects all animals, including humans. It is efficiently passed into the milk, which protects the lactating female but poisons the young.

Most white snakeroot poisonings in Texas occur in sheep and especially in goats, where the **lethal dose** is only about 0.5 percent of an animal's body weight.

Tremetone degrades as the plants dry, so plants in hay are less hazardous than the green plant.

Animals raised in pastures with the plant avoid it and are seldom poisoned. Introducing naive goats to the plant in the spring has caused death losses of more than 90 percent.

Livestock signs

Clinical signs of snakeroot poisoning, although similar, vary with the species affected. Signs in sheep and goats are predominately those of liver failure:

- Depression
 - Weakness
 - Head pressing
 - Slight muscle tremors after exercise
 - Coma
 - Death in 1 to 5 days
- In cattle, the signs include:
- Listlessness
 - Stiff movements
 - Severe muscle tremors after exercise
 - Coma
 - Death in 3 to 21 days

Horses show clinical signs similar to those of cattle except that there are also some signs related to disrupted cardiac function (abnormal heart rate, jugular

distension and ventral **edema**), and death can occur in 1 to 2 days.

Integrated management strategies

Goats naive to white snakeroot should never be allowed access to it except in midwinter when there are no green plants.

Cattle and horses should not be forced to consume the plant because of poor range condition. Many cattle showing signs of tremors will recover if they are moved from contaminated pastures and allowed to remain quiet with as little disturbance as possible. Do not expose horses to the growing plants.



Leaf ↗

Flower ↘

↙ Whole plant

