

# Greasewood

*Sarcobatus vermiculatus*

**Other Common Names:** seepwood, saltbush

**Species Affected:** sheep, cattle

**Description:** Greasewood is an erect, spiny, woody perennial shrub that typically grows 3 to 5 feet tall, with some plants reaching heights up to 10 feet. Flowers are small and light green to white in color. It has many thorns with narrow, succulent green leaves on rigid branches. Its bark is smooth and white.

**Growing Location and Timing:** Greasewood is well adapted to arid and semi-arid areas with heavy saline and alkaline soils. It starts growing in early spring and leaves remain succulent throughout the summer until drying and dropping off in the fall. Buds remain on the plants for most of the year.

**Toxin:** Greasewood's toxicity is caused by soluble sodium and potassium oxalates (oxalic acids) which concentrate in the leaves. The concentration of these toxins increases throughout the growing season, and so the plant becomes more toxic later in the summer and into the fall. The amount of toxin varies considerably (from 10-22% of plant dry weight) in the different areas where it grows. These chemicals endanger the kidneys.

**Toxic Plant Parts:** All parts are toxic, but toxins are most concentrated in the leaves. Deaths usually occur in fall and winter when livestock eat large concentrated quantities of leaves that have fallen to the ground. Losses can also occur in the early spring when livestock feed on new growth. The plant is moderately to highly palatable.

**Possible Effects on Livestock:** Possible symptoms include depression, weakness or reluctance to move, shallow/rapid breathing, drooling, coma, kidney effects such as uremia and hypocalcemia, renal tubular necrosis, crystalluria (crystals in the urine). Death can occur within a few days or in as little as two hours. The toxic dose for a sheep may be as low as 2 pounds, and that for a cow as low as 3 pounds.

**Preventative Measures:** Livestock can safely eat greasewood in moderation when plenty of other forage is available in their diet. They can also build up a slight tolerance to the oxalates if introduced to low doses of greasewood over a period of several days; in conditioned animals the lethal dose is 30-50% higher than otherwise. Make sure plenty of other forage and water are available.

*Resources:* [Greasewood \(Sarcobatus vermiculatus\) : USDA ARS](#)

[Species: Sarcobatus vermiculatus \(usda.gov\)](#)



Greasewood is an erect, spiny, woody perennial shrub that grows 2 to 5 feet tall. Flowers are small and light green to whitish.

^Photo Credit: USDA



^Photo Credit: WSU