

Guajillo

Acacia berlandieri

Guajillo is a nearly thornless shrub to small tree in the legume family. The plant height varies greatly, ranging up to 15 feet tall. The leaves are arranged like those of mesquite, but are smaller.

The sweet-scented, white to yellow flowers are clustered in dense groups. The plant produces a typical, flattened, bean-type legume fruit that is four to six times longer than it is wide.

Distribution and habitat

Guajillo grows on a variety of soil types but is most prolific on ridges and shallow soils. Found mainly in the Rio Grande Plains and southwest Texas, it is less common in the southern Edwards Plateau and Trans-Pecos regions. It also grows extensively in northern Mexico. Regions: 2, 6, 7, 10.

Toxic agent

Guajillo poisons sheep, goats and possibly cattle. The leaves contain excitatory amines, principally N-methyl- β -phenethylamine and tyramine. Overconsumption may cause a condition in sheep and goats known as guajillo wobbles, which may be followed by death.

The lethal dose of plant material for sheep and goats has not been determined. The toxic dosage is 15 times the animal's

weight in leaves and fruit consumed over several months.

Livestock signs

Signs of guajillo poisoning include:

- Guajillo wobbles or limber leg in sheep and goats, an uncoordinated, rubbery action, usually in the rear legs
- Downed animals remain alert with normal appetite
- Death

At first, leg dysfunction appears only when animals are forced to move, but after several days the animal becomes unable to rise and may die. These signs are generally not apparent unless the animal has eaten guajillo almost exclusively for at least 9 months.

Research in sheep, goats and cattle has shown that the amine compounds can cause excessive release of stress hormones. As a result, certain reproductive functions (such as normal release of reproductive hormones, estrus, ovulation and testicular development) can be suppressed. Reduced pregnancy rates have been reported in nannies.

Integrated management strategies

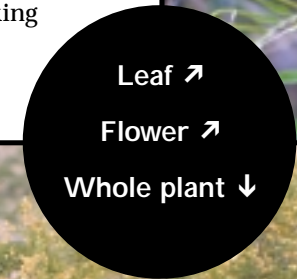
Historically, guajillo has been considered a valuable browse

plant that should not be grazed to the exclusion of other range forage. Recent evidence suggests that the plant has been overrated as a forage, because much of its nitrogen is of nonprotein origin and is poorly digested.

Supplemental feeding and reduced stocking rates lower the incidence of poisonings.

At the first signs of illness, move the animals to a pasture with more varied browse and especially herbaceous forage. Animals placed on an adequate ration may recover.

Managers should give animals alternatives to shrub foliage and avoid overstocking pastures.



Leaf ↗

Flower ↗

Whole plant ↓

