



Garboncillo, Wooton Locoweed

Astragalus wootonii

Garboncillo is a much-branched annual legume with erect, hairy stems 3 to 12 inches long. The leaves are composed of nine to 19 leaflets, hairy beneath and smooth above.

The flowers are pink or purplish to white emerging in March to June. The most conspicuous part of the plant is the fruit, a large, one-celled, inflated pod.

Distribution and habitat

In Texas, garboncillo is generally restricted to the Trans-Pecos region. It is common in southern New Mexico, eastern Arizona and northern Mexico.

Garboncillo is most abundant in valleys receiving runoff water from the surrounding hills, as well as in bar ditches, along trails and around earthen tanks. Regions: 9, 10.

Toxic agent

The toxic principle is an alkaloid called swainsonine. Horses are particularly susceptible to garboncillo, although cattle, sheep and goats are also poisoned. Consumption of about 90 percent of the animal's body weight in garboncillo is required before cattle show signs of poisoning. As much as 200 to 350 percent of their body weight of the plant, eaten over a period of several months, may be required to kill cattle, sheep and goats.

Horses eating about 30 percent of their body weight in the plant show clinical signs, and consumption of about 75 percent of their body weight may be fatal.

Both dry and green garboncillo are toxic. Livestock readily eat the dead stems remaining after die-back at frost.

Livestock signs

Clinical signs develop from the involvement of sensory and motor functions. In cattle, general signs include:

- Carrying the head a little lower than normal
- A vacant stare
- Trembling of the head
- Difficulty eating and drinking
- Abortion

Swainsonine passes into the milk, possibly explaining the unthriftiness of some suckling calves.

The period from onset of signs to death is much shorter in horses than cattle. The horse is listless, but on being stimulated becomes excessively excited, even to the point of inflicting a fatal injury to itself. Horses with chronic locoweed rarely recover and are dangerous to ride because of unpredictable and permanent behavioral changes.

Integrated management strategies

Because garboncillo is an annual, mechanically removing the plant around tanks, along roadways and in other hazardous sites is often effective. Proper stocking rates and grazing management practices can help reduce consumption. Sound range management practices can prevent garboncillo poisoning.

Livestock should receive proper supplementation of energy, protein, minerals and vitamins.

For small problem areas, treat individual plants with a 2 percent solution of Grazon P+ D® applied directly to the leaves of the plant. For a large area, aerial or ground broadcast applications of 0.94 pounds a.i./acre of Grazon P+ D® (3 pints) have given good results.

