



Peavine, Emory Loco

Astragalus emoryanus

Peavine is an annual legume with a slender taproot and stems growing close to the ground. The stems usually branch at the base and bear an odd number of sharp-tipped leaflets. The hairless, two-celled seed pods contain about a dozen seeds. Flowers are purplish, appearing from March to June.

Peavine is closely related to and can be found growing with other *Astragalus* species such as woolly loco and garboncillo. It is especially similar to the nontoxic *Astragalus nuttallianus* (Nuttall milkvetch).

Distribution and habitat

Peavine (*A. emoryanus*) is most abundant and causes the greatest threat in the limestone mountains of the Trans-Pecos region. It is also found in the red sandy soils of the Edwards Plateau and South Texas. Regions: 6, 7, 10.

Toxic agent

The toxic agents produced by peavine are miserotoxin and 3-nitro-1-propanol. It has recently been shown that some ruminal microorganisms detoxify these compounds, and the organisms' populations are increased if the animal receives small doses of toxin while on a high-protein diet.

Peavine is toxic to cattle, sheep and goats. Signs of peavine poi-

soning were produced in sheep by feeding 1 to 2 percent of the body weight of peavine over 2 days.

Livestock signs

Under range conditions, signs resulting from **chronic** consumption of the plant are caused by loss of nerve function and may include:

- Momentary knuckling over of fetlocks
- Weakness in hindquarters
- Striking or rubbing rear hooves together
- Progressive hind-end incoordination
- Impaired vision
- Labored breathing, sometimes with a rasping voice

Integrated management strategies

Because peavine normally is short-lived, the usual management practice is to remove animals from pastures with severe infestations. Peavine is not a problem every year. During problem years, use of peavine-free pastures may be an alternative. Lightly stocking infested pastures may also limit poisoning.

At the first signs of poisoning, remove livestock from peavine pastures and place them in shaded pens with feed and water. Handle

livestock suspected of consuming peavine quietly with as little stress as possible.

Herbicide applications are not usually economical. As with most annuals, mechanical soil disturbance may make the problem worse.

