



Threadleaf Groundsel, Senecio

Senecio douglasii

Threadleaf groundsel is a many-stemmed evergreen composite. The stems and leaves are gray-green. The leaves are divided into three to seven segments and may be hairy or nearly smooth. The stems are herbaceous, although somewhat woody at the base, and may have variable hairiness.

Showy yellow flowers emerge from March through November.

Distribution and habitat

Threadleaf groundsel is a common range plant in Colorado and Utah, and south to Texas and Mexico. It is common in the grassland areas of western Texas. Disturbance and overgrazing cause it to increase in abundance. Regions: 6, 7, 8, 9, 10.

Toxic agent

Threadleaf groundsel owes its toxicity to pyrrolizidine alkaloids. Stress from lack of water causes the plant to increase in alkaloid content.

Cattle and horses are about equally sensitive to this plant. Sheep and goats are more resistant, generally requiring up to 10 times the amount for the same effect as in cattle and horses.

Generally for acute poisoning, cattle and horses must eat a dose of 1 to 5 percent of their weight in

threadleaf groundsel over a few days. This type of poisoning is rare under range conditions.

Most losses are from chronic poisoning, which occurs when cattle and horses consume as little as 0.25 percent of their body weight.

Livestock signs

Often up to 6 months elapse between consumption of this plant and the appearance of chronic signs. During this period, animals may even gain weight and appear thrifty.

The first signs of poisoning include:

- Standing apart from other animals
- Depression and sluggishness
- Lacking appetite
- Weight loss

Signs of the advanced stage:

- Continuous walking, sometimes without avoiding objects
- Sudden nervous appearance upon disturbance
- Frequent voiding of small amounts of urine
- Bile-stained (yellow) feces
- Rectal prolapse (cattle)
- Skin swollen with excessive fluid and possibly emitting a sweetish, unpleasant odor
- Conversely, death occurring quickly or quietly after a period of depression

In the advanced stage, the animals may remain relatively quiet or become agitated and dangerously aggressive.

Examination after death may reveal a hardened liver (possibly with mottled coloration). The gall bladder may be distended, frequently to an enormous size.

Integrated management strategies

There is no treatment for pyrrolizidine alkaloid poisoning because the liver damage is severe, progressive and permanent.

Management practices that improve range condition will reduce losses to threadleaf groundsel. Proper mineral supplementation, especially with phosphorus, also helps.

Treat individual plants by applying Grazon P+D® (2 percent solution in water) directly to the leaves. For widespread populations, aerial or ground broadcast applications of 0.94 pound a.i./acre of Grazon P+D® or 0.25 ounce a.i./acre of Escort® have given good results.

