



Buffalobur

Solanum rostratum

Buffalobur is a prickly annual of the nightshade family typically growing up to 2 feet tall. The leaves, which vary in shape and size, are irregularly rounded and deeply lobed with spiny veins.

The yellow flowers appear from May to October, and the fruit is enclosed by a prickly bur.

Distribution and habitat

Buffalobur is considered a weed nearly everywhere it grows. It is common in old fields, roadsides, overgrazed pastures and disturbed areas and near water tanks throughout Texas.

A native of the Great Plains, it is found growing from North Dakota to Texas, and westward and south into Mexico. Regions: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

Toxic agent

Buffalobur can poison horses, sheep, goats and cattle. However, sheep and goats are more resistant than cattle, and in controlled experiments, goats were not poisoned at all. Its toxic agent is the glycoalkaloid solanine.

The leaves and fruit contain solanine at all stages of growth. In some instances, as little as 0.1 to 0.3 percent of an animal's weight in buffalobur is enough to be toxic.

Species within the genus *Solanum* can also accumulate excess nitrates in soils that are high in nitrogen.

Livestock signs

The glycoalkaloid can cause two types of effects in a poisoned animal. Nervous effects include:

- Incoordination
- Excessive salivation
- Loud, labored breathing
- Trembling
- Progressive weakness or paralysis
- Nasal discharge

Effects of gastrointestinal irritation include:

- Nausea
- Abdominal pain
- Vomiting
- Diarrhea, sometimes with blood

Typical nitrate signs may also be exhibited but are much less common. Plant material may be identified in rumen content of dead animals.

Integrated management strategies

Because buffalobur is unpalatable and mechanically injurious to the mouth, problems occur only in unusual circumstances. Some cases have occurred in cattle grazing very lush wheat pastures (no

roughage) suddenly gaining access to areas infested with mature, dead buffalobur. Others have resulted from extreme overgrazing.

Good range management practices can reduce the incidence of livestock poisoning.

If infestations become severe, apply Grazon P+D® at 0.6 to 0.9 pound a.i./acre as an aerial or ground broadcast treatment in spring when plants begin to flower.

For individual plant treatments, mix Grazon P+D® as a 1 percent solution with surfactant and water, and thoroughly wet the leaves using a hand-held sprayer.

Mechanical control practices that disturb the soil surface may make the plant infestations more severe.

