



# Russian Thistle, Tumbleweed

*Salsola iberica*

Tumbleweed is a many-branched, annual herb growing to 2 to 6 feet tall. At maturity, the plant is stiff, prickly, round and bushy. The spine-tipped leaves are oval. The stems have distinctive dark purplish striations (parallel to the stem) when the plant is young and growing.

Tumbleweed is a member of the goosefoot family.

## Distribution and habitat

Tumbleweed is found in every region of Texas except the Piney Woods and Post Oak Savannah. It is most abundant along roads, in irrigated fields and in disturbed areas. Regions: 2, 4, 5, 6, 7, 8, 9, 10.

## Toxic agent

Nitrate is the toxic agent. All ruminants are susceptible to nitrate poisoning, with cattle poisoned most often. Plants with more than 1.0 percent nitrate are dangerous; animals may die if they have consumed as little as 0.075 percent of their weight in nitrate.

Environmental factors often influence nitrate. For example, nitrate poisoning is more likely if the plant grows in soils high in nitrogen, such as in livestock pens or fertilized areas. Excessive shade, lack of water, and stress or physical damage may also increase nitrate levels.

## Livestock signs

Animals with acute nitrate poisoning are often found dead with no previous history of illness. Less acute nitrate poisoning signs occur in this order:

- Weakness
- Unsteady gait
- Collapse
- Shallow and rapid breathing
- Rapid pulse
- Dilated pupils
- Recovery
- Delayed abortion, or
- Coma
- Sudden death

Unpigmented parts of the body such as the whites of the eye, the tongue and lips may have a blue-brown discoloration; the blood may be a chocolate brown color.

## Integrated management strategies

Avoid areas infested with this plant during drought, after a period of extended cool, cloudy weather, or after a heavy application of nitrogen fertilizer. Rations high in carbohydrates also help reduce losses from nitrate poisoning.

Keep poisoned animals quiet, and administer methylene blue intravenously. Generally, use a 1 to 4 percent solution containing 5 percent dextrose at a rate of 1

gram of methylene blue per 250 pounds of animal weight. Be certain of the diagnosis of nitrate poisoning before treating with methylene blue.



↖ Seedling

Stem ↗

Whole plant ↓

