

## Dock *Rumex* spp.

There are 15 species of *Rumex* listed in Texas. Most of these are perennial herbs with a basal rosette of leaves. The stalk is upright and has alternate, mostly entire (edges have no notches or indentations) leaves.

The small, greenish flowers are arranged in dense clusters on elongated stems. The mature flowering stalk and the three-sided fruit are usually brown at maturity. Each fruiting body contains a single black or brown seed.

#### **Distribution and habit**

At least one species of dock can be found in each vegetational area of Texas. It is among the most common weed across the United States and southern Canada. Dock grows most often on disturbed soil, and most Texas species are found in seasonally wet areas. Regions: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

#### **Toxic agent**

Dock contains soluble oxalates, and the concentration tends to increase as the plant matures. Poisoning is uncommon, but occurs most frequently in ruminants. At a low level of intake, the rumen microorganisms adapt over a period of several days and are able to use oxalates to produce energy. Toxicity can occur when nonadapted animals consume a large amount of oxalate. In oxalate poisoning, calcium oxalate crystals are deposited in the kidneys and in blood vessel walls.

### Livestock signs

Clinical signs of poisoned animals may include:

- Anorexia
- Incoordination
- Depression
- Prostration
- Convulsions
- Death

Severely poisoned animals that live for several days can die from kidney failure.

# Integrated management strategies

Good pasture or range management can prevent the sudden intake of the large amount of dock necessary to produce poisoning. Most cases of poisoning occur when these unpalatable plants are treated with a herbicide such as 2,4-D without removing the animals from the pasture. This treatment makes the plant more palatable and may also increase its oxalate content.

