



# Castor-bean

*Ricinus communis*

Castor-bean is a coarse, hairless, annual herb growing from 3 to 15 feet tall with a single stem below and numerous ascending branches above. The large, alternate, stemmed leaves are up to 20 inches long and have seven to nine deeply toothed, palmlike lobes.

Some ornamental varieties are showy with purplish stems and leaves. The flowers lack petals but the centers are reddish. Mottled seeds are encased in three-celled capsules in terminal spikes.

## Distribution and habitat

Castor-bean has been cultivated as an oilseed crop and grown as an ornamental in many areas of the state. It has become established as an escapee in some areas and can be found in fields, gardens and along some rivers in central and west Texas. Regions: 1, 2, 3, 4, 5, 6, 7.

## Toxic agent

The seeds contain ricin, one of the most toxic compounds known. Fortunately, this compound is not readily absorbed through the wall of the intestinal tract. It is a protein and can be denatured (its properties can be changed) by heat.

Whole or poorly masticated seeds are not very toxic, but toxicity increases as the seed is finely ground. Horses are poisoned by

about 0.01 percent of their weight in seeds; cattle, sheep and pigs must consume about 0.25 percent of their body weight. Animals have been poisoned by grain contaminated with castor-bean seeds.

## Livestock signs

There is often a delay of several hours to days between consumption of castor-bean seeds and onset of clinical signs, which are related to severe gastric inflammation and upset. Signs can include:

- Anorexia
- Depression
- Depressed rumen function
- Abdominal pain
- Colic in horses
- Diarrhea
- Weakness

## Integrated management strategies

Castor-bean poisoning is rare in North America. Animals seldom consume seeds from mature plants, even though they are available and other forage is scarce. Remove seed clusters from ornamental plants before they are mature to prevent consumption and poisoning by pets.

Feed containing castor-bean seeds should not be fed to livestock.

