



# African Rue

*Peganum harmala*

A member of the caltrop family, African rue is a bright green, succulent, perennial herb growing from a woody base. It is bushy, many branched and about 1 foot tall when fully grown.

The leaves are alternate, hairless and divided into narrow segments. The flowers consist of five white petals and are present from April to September, with seed pods developing in May to October.

## Distribution and habitat

African rue is native to the deserts of Africa and southern Asia. First recognized in the United States in 1935 on a section of land near Deming, NM, it has since spread onto dry rangelands in Arizona, southern New Mexico and western Texas. Regions: 7, 8, 10.

## Toxic agent

African rue, which contains at least four poisonous alkaloids, is toxic to cattle, sheep and probably horses.

The seeds and fruit of the plant are the most toxic; a lethal dose is 0.15 percent of the animal's body weight. Young leaves are somewhat less toxic than seeds, with a lethal dose of about 1.0 percent of the animal's weight, while mature leaves are less toxic. Dry leaves are apparently nontoxic.

## Livestock signs

Signs of chronic poisoning include:

- Loss of appetite
- Listlessness
- Weakness of the hind legs
- Knuckling of the fetlock joints

Acute conditions produce these signs:

- Stiffness
- Trembling
- Incoordination
- Frequent urination

The body temperature of poisoned animals is usually subnormal. They salivate excessively, wetting the lower jaw and muzzle. Postmortem examination may reveal hemorrhages on the heart or liver. Acute poisoning usually is caused by eating seeds.

## Integrated management strategies

African rue is extremely unpalatable. Animals eat it only if they are starved or suffering from severe mineral deficiencies.

If poisoning occurs, it is usually in spring and summer. When possible, avoid pastures infested with African rue during these times. Remove livestock known to be grazing young leaves or seeds of African rue from the area. If given good-quality feed and water,

chronic poisoning cases generally recover.

Chemical control treatments for African rue should target problem areas such as roadsides, livestock pens and traps, and areas around oil fields.

