Identification of prickle bushes

Prickly acacia (*Vachellia nilotica*), Mesquite (*Prosopis* spp.), Parkinsonia (*Parkinsonia aculeata*), Mimosa bush (*Vachellia farnesiana*)

Four prickly leguminous bushes or trees are woody weeds of western Queensland. Because two or more are often present in the same area, land managers should correctly identify them before considering control measures.

With practice, mature plants of the four species can often be recognised from a distance by their overall shape and sometimes their foliage colour.

However, because many trees are not the ‘standard’ shape or colour, quick visual identifications from afar are not always correct. All four species produce thorns, yellow flowers and bean-like seed pods. For positive identification a plant must be examined closely.
Description

Prickly acacia

Restricted category 3 invasive plant

Prickly acacia (*Vachellia nilotica*) is a thorny tree growing to 10 m high but usually only to about 4–5 m. It has ferny type leaves, as does mimosa bush and mesquite. Prickly acacia is usually single stemmed unless damaged by fire or frost, when it becomes multi-stemmed at the base. The flowers are ball-shaped, golden yellow and about 1 cm across.

The pods are usually 10–15 cm, flattish, have constrictions between the seeds and are greyish when ripe. Young plants are very thorny but older plants tend to lose most thorns. The thorns are in pairs along the stem and are usually 1–5 cm long.

Mesquite (other common name: Algaroba)

Prohibited and restricted category 3 invasive plant

Mesquites (*Prosopis* spp.) are the most variable in size, shape and foliage colour of the four woody weeds described in this fact sheet. This is because more than one species is covered by the common name of mesquite: *Prosopis pallida*, *Prosopis glandulosa*, *Prosopis velutina* and a hybrid mesquite (*Prosopis* spp. hybrid).

Mesquites are thorny, usually spreading trees growing to 15 m tall. They were favoured historically as shade trees and are often found around homesteads and stockyards. Depending on the species, they can have a multi-stemmed shrubby habit with branches drooping to ground level or are single stemmed trees with spreading canopies.

The foliage is usually green but can vary to blue-green. The twigs are smooth, often with dark red or green bark, and zigzagged with straight, stout pairs of thorns usually 1–3 cm long. Overall, trees appear rather untidy with individual zigzagged twigs protruding beyond the main canopy. They are not as neat in appearance as prickly acacia.

The greenish-cream flower is 5–8 cm long, and cylindrical (described as ‘lamb’s tail’). The pods are 10–20 cm long, straight to slightly curved, smooth, with slight constrictions between the seeds, and straw coloured when ripe. In some species the pods may be purplish.

Parkinsonia (other common names: Jerusalem thorn, jelly bean tree)

Restricted category 3 invasive plant

Parkinsonia (*Parkinsonia aculeata*) is a thorny shrub or small tree which can grow to 10 m tall. It can be either single or multi-stemmed. The leaves are different to the ferny leaves of prickly acacia, mimosa bush and mesquite. They consist of a flattened leaf stalk up to 30 cm long with tiny oblong leaflets in rows along each side. Sharp, recurved thorns up to 1 cm long are found on the stem at the base of each leaf.

Mimosa bush

Invasive plant

Mimosa bush (*Vachellia farnesiana*) is a rounded shrub growing to 3 m tall; it occasionally grows into trees up to 5 m tall. It has ferny type leaves, which are sometimes more of a yellowish green than the pure green of prickly acacia. The plant is nearly always multi-stemmed. The flowers are identical to those of prickly acacia except that they are sometimes more orange in colour.

The pods grow up to 6 cm long, are cigar shaped, slightly curved, and brown to black when ripe. The thorns are similar to those of prickly acacia.

Distinguishing characteristics

Fortunately, the four prickly bushes or trees can be easily distinguished, as follows:

- Parkinsonia has leaves that are a flattened green leaf stalk with small leaflets moderately spaced along each side. The other three weeds all have ferny type leaves
- Mesquites are easily distinguished from prickly acacia and mimosa bush by the flowers—‘lamb’s tail’ for mesquite versus small round flowers for the other two
- Prickly acacia and mimosa bush are easily distinguished by their seed pods—constrictions between the seeds for prickly acacia versus a cylindrical pod for mimosa bush.

If there are no flowers, pods alone can be used to distinguish mesquites, prickly acacia and mimosa bush.

- If there are no flowers or pods, bark colour can be used, with some expertise.
- Parkinsonia plants of all ages have green bark.
- The young bark of mesquite is often green and/or dark red.
- The young bark of prickly acacia has a tinge of orange or green.
- In mimosa bush, the young bark is grey with white spots.

Further information

Further information is available from your local government office, or by contacting Biosecurity Queensland on 13 25 23 or visit biosecurity.qld.gov.au.
Table 1. Some characteristics to distinguish between the prickle bushes

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Prickly acacia</th>
<th>Mesquite</th>
<th>Parkinsonia</th>
<th>Mimosa bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pod shape</td>
<td>Up to 23 cm long with constrictions between seeds</td>
<td>Up to 20 cm long, slight constrictions between seeds; straight or slightly curved</td>
<td>Up to 10 cm long, long thin constrictions between seeds; straight</td>
<td>Cigar-shaped, up to 6 cm long and slightly curved</td>
</tr>
<tr>
<td>Flowers</td>
<td>Ball-shaped, golden yellow, about 1 cm across</td>
<td>Greenish-cream flower spike 5–8 cm long and cylindrical in shape</td>
<td>Five petals mainly yellow except one which has an orange spot</td>
<td>Ball-shaped, golden yellow, about 1 cm across</td>
</tr>
<tr>
<td>Pod colour, hairiness</td>
<td>Blue-grey, fine hairs</td>
<td>Straw coloured, sometimes purple; no hairs</td>
<td>Straw coloured pod; no hairs</td>
<td>Brown to black; no hairs</td>
</tr>
<tr>
<td>Leaves</td>
<td>Leaves fern-like; 4 to 10 pairs of leaves, often overlapping</td>
<td>Leaves fern-like; 1 to 3 pairs of leaves, often with a gap between leaves</td>
<td>Leaves with long flattened leaf stalk with tiny oblong leaflets along each side</td>
<td>Leaves fern-like; 2 to 4 pairs of leaves with a gap between leaves</td>
</tr>
<tr>
<td>Leaflets</td>
<td>10 to 25 pairs or leaflets</td>
<td>10 to 14 pairs or leaflets</td>
<td>8 to 18 pairs of leaflets</td>
<td></td>
</tr>
<tr>
<td>Tree shape</td>
<td>Spreading tree to 10 m tall</td>
<td>Variable shape, usually a spreading tree to 15 m tall</td>
<td>Small tree or shrub usually to 5 m tall</td>
<td>Usually rounded shrub to 3 m tall</td>
</tr>
<tr>
<td>Bark</td>
<td>Bark on saplings has tinge of orange and/or green. Mature trees have dark rough bark</td>
<td>Bark rough, grey; smooth dark red or green on small branches</td>
<td>Bark smooth and green, straw coloured and lightly textured at base of older trees</td>
<td>Bark grey with prominent white spots</td>
</tr>
<tr>
<td>Branch shape</td>
<td>Branches more or less straight</td>
<td>Branches zigzag shaped</td>
<td>Branches slightly zigzagged</td>
<td>Branches zigzag shaped</td>
</tr>
</tbody>
</table>
Identification of prickle bushes – flowers

Prickly acacia

Mesquite

Parkinsonia

Mimosa bush

Identification of prickle bushes – pods

Prickly acacia

Mesquite

Parkinsonia

Mimosa bush

This fact sheet is developed with funding support from the Land Protection Fund.

Fact sheets are available from Department of Agriculture and Fisheries (DAF) service centres and our Customer Service Centre (telephone 13 25 23). Check our website at biosecurity.qld.gov.au to ensure you have the latest version of this fact sheet. The control methods referred to in this fact sheet should be used in accordance with the restrictions (federal and state legislation, and local government laws) directly or indirectly related to each control method. These restrictions may prevent the use of one or more of the methods referred to, depending on individual circumstances. While every care is taken to ensure the accuracy of this information, DAF does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.