APRIL 2011

weed watch™

YOUR ALERT TO NEW AND EMERGING THREATS.

1. *Habit in summer.* ***2.*** *Relatively broad leaves.* ***3.*** *Dense thicket of Persimmon trees at Rochedale.* ***4.*** *Young fruit with enlarged sepals.*

TREE

Persimmon (*Diospyros kaki*)

Introduced | Not Declared

The Persimmon tree is thought to have originated in the Chang Jiang valley in China, but now has a much wider distribution in China, Taiwan and Japan as a result of spread though deliberate cultivation. It has also become naturalised in other parts of the world.

Distribution

Persimmon is widely grown as a fruit tree in Australia. It has been recorded becoming naturalised on a handful of occasions in recent years in south-eastern Queensland. There are currently five confirmed herbarium records of naturalised specimens from the Moreton and Wide Bay districts. In recent years it has also been noted growing in bushland on the Gold Coast, in the Woodford area, and in Brisbane (e.g. in Toohey Forest and at Rochedale).

Description

This tree usually grows up to 10 m tall, but may occasionally reach up to 25 m in height. Its bark is greyish-brown and relatively smooth on younger trees, but turns blackish and becomes furrowed as the tree matures. Younger branchlets may be densely hairy to hairless and bear relatively large alternately arranged leaves (5-18 cm long and 2.5-9 cm wide). These leaves are borne on short stalks 8-20 mm long and are somewhat hairy when young. They are bright green when young, becoming dark green as they mature, and then turn yellow followed by reddish-orange prior to being shed in autumn.

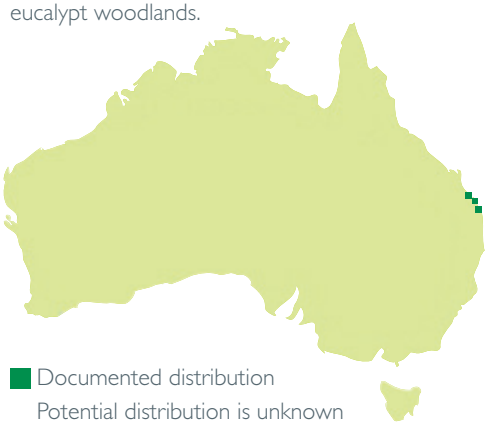
Separate male and female flowers are usually produced on separate plants, but rarely some flowers may have both male and female parts. Female flowers are borne singly in the leaf forks, while male flowers are produced in 3-5 flowered clusters. Male flowers are smaller with four whitish or yellowish petals (6-9 mm long) and 14-24 stamens. Female flowers are larger, with petals 9-16 mm long, an ovary, and numerous partially formed stamens. The greenish sepals of the female flowers become enlarged and partially enclose the developing fruit. These rounded or flattened fruit are large berries (3-9 cm across) that closely resemble a tomato. They turn from green to yellow and then bright orange-red as they mature and contain a fleshy pulp within which may be found several large dark brown seeds (13-16 mm long). Naturalised Persimmon trees often have much smaller fruit than those of cultivated trees.

Quick Facts

- A spreading tree usually growing up to 10 m tall.
- Its leaves turn reddish-orange before being shed in autumn.
- Separate male and flowers are usually produced on different plants.
- Its large tomato-like fruit turn reddish orange when mature.

Habitat

Persimmon may become naturalised in a variety of habitats, but is usually found growing in intact or disturbed bushland under other trees. It has been found growing in moister sites along waterways as well as in rocky sites in drier eucalypt woodlands.



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1. *Comparison of the size difference between the fruit of cultivated (left) and wild (right) Persimmon trees.* ***2.*** *Autumn leaves. (Photograph courtesy of Forest Starr and Kim Starr of USGS)*

Reproduction and Dispersal

This species mainly reproduces by seed, which may be spread by birds, bats and other animals that eat the fruit. This is the reason why it is beginning to appear in the understorey of relatively intact bushland and conservation areas, usually under trees where such animals roost. Persimmon also has the capability to produce suckers and re-shoot from the base of the plant if damaged.

Why is it an Emerging Threat?

While Persimmon is a slow-growing species and takes a relatively long time to reach reproductive maturity, it has weed potential due to the types of habitats that it is capable of invading. It is of concern because it is becoming established in relatively intact bushland away from the margins of conservation areas, and because it is appearing in drier and less fertile sites that other weeds cannot invade.

Control Methods

Small or immature specimens can be removed manually, however care must be taken to ensure that the crown is removed. The use of herbicides for the control of Persimmon is not well known, and none are specifically registered for this species in Australia. However, it is likely to be susceptible to a range of herbicides including Glyphosate, Picloram, Triclopyr and Dicamba when applied using methods such as cut and paint, basal barking and stem injection.

In Queensland, the previously mentioned range of herbicides can be used to control environmental weeds such as Persimmon via the APVMA off-label permit number 11463 (http://permits.apvma.gov.au/PER11463.PDF). Unless otherwise stated in this permit, the use of the product must be in accordance with instructions on its label. Within other state boundaries, it is recommended that all managers consult any relevant permits or government legislation applicable to their region.

Look a-likes

This plant is quite distinctive when in fruit or in the autumn when its leaves turn orange-red. However, it can be relatively difficult to distinguish when not in flower or when young. There are several native *Diospyros* species in Australia, however these plants usually have narrower leaves (1-5 cm wide) and much smaller fruit (1-3 cm across) that often turn brown or black when mature.

Top. *Mature fruit of native Diospyros.*
Bottom. *Narrower leaves of native Diospyros.*
Above photographs courtesy of Rob Whyte

The control methods referred to in Weed Watch™ 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 utilisation 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, Technigro does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.

This information has been developed with the assistance of Dr Sheldon Navie. Photographs are also courtesy of Dr Sheldon Navie, Forest Starr and Kim Starr of USGS and Rob Whyte
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