



Pacific Pests, Pathogens & Weeds - Fact Sheets

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Fireworks (445)

Relates to: **Weeds**



Photo 1. A small thicket of young fireworks trees, *Clerodendrum quadriloculare*.



Photo 2. The beginnings of a stand of fireworks, *Clerodendrum chinense*, in an abandoned coconut plantation.



Photo 3. Fireworks, *Clerodendrum chinense*, roadside with opened flowers.



Photo 4. Leaves, *Clerodendrum quadriloculare*.



Photo 5. Leaves, *Clerodendrum quadriloculare*, showing the dark purple of the lower side.



Photo 6. Unopened flowers, *Clerodendrum quadriloculare*.



Photo 7. Opened flowers, *Clerodendrum chinense*.

Common Name

Fireworks; it is also known as firecracker, Philippine glory-bower, or starburst bush. CABI prefers the name bronze-leaved clerodendrum.

Scientific Name

Clerodendrum quadriloculare. It is a member of the Lamiaceae.

Distribution

Restricted. Asia, North America (restricted), the Caribbean (restricted), Oceania. It is recorded from American Samoa, Federated States of Micronesia, Fiji, French Polynesia, Guam, Marshall Islands, Northern Mariana Islands, Palau, Papua New Guinea, and Samoa.

It is a native to Papua New Guinea and the Philippines.

Invasiveness & Habitat

An important invasive weed. It is an attractive ornamental cultivated in backyards and gardens. However, it is very aggressive, growing rapidly, producing large amounts of viable seed, and root suckers prolifically, forming dense thickets along roadsides, waste grounds, abandoned plantations, and disturbed areas (Photos 1&2). Tolerant of shade.

Description

A perennial shrub up to 5 m high (Photo 2). The stems are almost quadrangular (four-sided) in section. Leaves are in pairs, oblong, 15-20 cm long, with pointed tips, rounded base and wavy margins (Photo 3). The upper surface is green, and the lower surface dark-purple (Photo 4). There are many flowers in showy large flat-topped clusters, each a narrow pink tube, 5-8 cm long, ending in five-curved white petals about 1.5 cm long (Photos 5-7). Fruits are ellipsoid (earth-shaped), 1-1.5 cm long, containing four seeds.

Spread

Spread over short distances is by root suckers. Over both short and long distances, spread is by seeds eaten by birds and other animals. Seeds, pieces of root and cuttings are also dispersed in soil, sand, and gravel.

Impact

After introduction as an ornamental to southwest Pacific countries, fireworks has rapidly becoming an invasive weed; the same has happened in Guam in the north Pacific and in Puerto Rico in the Caribbean. In all these places, it has been planted in gardens and then escaped into cultivated and natural areas with the result that native vegetation has been displaced. Its potential to invade relatively intact native forest makes this weed potentially very important. For instance, in Pohnpei, Federated States of Micronesia, it occurs in full shade under forest canopy as a dense understory.

Uses

It is used as a hedge, a specimen plant in gardens, and in median strips along roads. It is also used in traditional Philippine medicine to treat wounds and ulcers.

Management

BIOSECURITY

There is a high risk of introduction of fireworks because of its showy flowers make it appealing as an ornamental. Countries not yet infested should consider all likely pathways for entry, and apply quarantine measures accordingly. Special consideration should be given to the part played by the domestic and international trade in ornamental plants, as well as traditional medicines, in the spread of this invasive weed.

BIOLOGICAL CONTROL

No information available.

CULTURAL CONTROL

- Physical & Mechanical
 - Hand weed or dig out the plants, but reports that if left too long plants are difficult to remove manually.

CHEMICAL CONTROL

There are no herbicides registered for this weed in Australia. In Fiji, glyphosate. The following are also suggested from the chemical control of *Clerodendrum chinense* (Honolulu rose) (see **Fact Sheet no. 443**):

- Foliar applications: picloram; triclopyr; 2,4-D; metsulfuron-methyl. There are products which combine picloram + triclopyr; picloram + 2,4-D; dicamba + 2,4-D.
- Cut-stump applications of the same herbicides. (See **Fact Sheet no. 442 for methods**).
- Soil applications: fluroxypyr.

For foliar applications, it is recommended that the plants are slashed, and the new growth is then sprayed.

In the EU, approval to use glyphosate ends in December 2022.

When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval. Recommendations will vary with the crop and system of cultivation. Expert advice on the most appropriate herbicides to use should always be sought from local agricultural authorities.

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Information from CABI (2019) *Clerodendrum quadriloculare* (bronzed-leaved clerodendrum). Invasive Species Compendium. (<https://www.cabi.org/isc/datasheet/14334>); and from Pacific Island Ecosystems at Risk (2013) *Clerodendrum quadriloculare*. (http://www.hear.org/pier/species/clerodendrum_quadriloculare.htm). Photos 1-4 Forest and Kim Star, Star Environmental, Bugwood.org

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