

LOCAL NAMES

English (Bahamian holly, Florida holly, christmasberry tree, broadleaf pepper tree, Brazilian pepper tree); French (poivrier du Bresil, faux poivrier); German (Brasilianischer Pfefferbaum); Spanish (pimienta de Brasil, copal)

BOTANIC DESCRIPTION

S. terebinthifolius is a small tree, 3-10 m tall (occasionally up to 15 m) and 10-30 cm diameter (occasionally up to 60 cm). *S. terebinthifolius* may be multi-stemmed with arching, not drooping branches.

Leaves pinnate, up to 40 cm long, with 2-8 pairs of elliptic to lanceolate leaflets and an additional leaflet at the end. Leaflets glabrous, 1.5-7.5 cm long and 7-32 mm wide, the terminal leaflet larger than lateral ones. Leaf margins entire to serrated and glabrous.

Flowers white, in large, terminal panicles. Petals oblong to ovate, 1.2-2.5 mm long.

Fruits globose, bright red drupes, 4-5 mm in diameter.

This is a highly invasive species that has proved to be a serious weed in South Africa, Florida and Hawaii. It is also noted as invasive in other Caribbean and Indian Ocean islands. Rapid growth rate, wide environmental tolerance, prolific seed production, a high germination rate, seedling tolerance of shade, attraction of biotic dispersal agents, possible allelopathy and the ability to form dense thickets all contribute to this species' success in its exotic range.

BIOLOGY

Schinus terebinthifolius is dioecious, has high ecological plasticity, short life cycle and very rapid growth. First seed production may occur at 3 years. The flowers are insect pollinated and seed production is high. Flowering occurs in September to early November. Fruit ripening follows immediately between December and February. Seed dispersal is by animals, particularly birds and mammals including raccoons and possums which account for a major component of dispersal in the USA. Water and gravity are minor dispersal agents.



Tree; taken at: Los Angeles County Arboretum - Arcadia, CA and The National Arboretum - Washington, DC (W. Mark and J. Reimer)



Bark; taken at: Los Angeles County Arboretum - Arcadia, CA and The National Arboretum - Washington, DC (W. Mark and J. Reimer)



Fruit; taken at: Los Angeles County Arboretum - Arcadia, CA and The National Arboretum - Washington, DC (W. Mark and Reimer)

ECOLOGY

Brazilian pepper tree is particularly found on forest borders and river margins. It is associated with damp soils and riparian forest habitats, although it may also appear as a dry savannah plant.

BIOPHYSICAL LIMITS

Altitude: 0-2000 m

Temperature: 12-26°C

- Mean maximum temperature of hottest month: 20-28°C

- Mean minimum temperature of coldest month: 8-24°C

- Absolute minimum temperature: -6-3°C

Rainfall: 950-2200 mm

Soil type: prefers light, medium, heavy, well drained soils; tolerates seasonal water logging and acidity.

DOCUMENTED SPECIES DISTRIBUTION

Native: Argentina, Bolivia, Brazil, Chile, Paraguay, Uruguay

Exotic: Australia, Bahamas, Bermuda, Botswana, Cuba, Israel, Jamaica, Mauritius, Mexico, New Zealand, Puerto Rico, Reunion, South Africa, United States of America, Virgin Islands (US)



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS

Food: The fruits are highly appreciated as a condiment in Europe, where they are used as a substitute for black pepper (*Piper nigrum*).

Timber: the Brazilian pepper tree does not have significant commercial value in Brazil, but is generally used for posts, round wood; stakes; pit props; pulp and short fibre pulp.

Fuel: the wood is also used for fuelwood and charcoal.

Gum or resins: the tree is a source of resins

Tannin or dyestuff: also a source of tannins

Fodder: Brazilian pepper tree produces good quality fodder, especially for goats, but it must be used carefully because of the toxicity of some of the plant parts. The fruits are eaten by birds including American robins, and mammals, both raccoons and possums.

Essential oils: Essential oils extracted from the seeds of *S. terebinthifolius* have pesticidal activity against the housefly (*Musca domestica*) and its antimicrobial properties have also been investigated.

Apiculture: Brazilian pepper honey is highly valued especially in Florida, ensuring high incomes for beekeepers.

Poison: *S. terebinthifolius* may cause allergies in sensitive people even without direct contact with its leaves and fruits. For some birds, the fruit is toxic.

Medicine: *S. terebinthifolius* is well known for its medicinal characteristics

SERVICES

Erosion control: The tree has been used to stabilize sand dunes on the Brazilian Atlantic coast.

Ornamental: *S. terebinthifolius* has an attractive appearance and has therefore been introduced in many areas as an ornamental and street tree.

Boundary or barrier: The tree is also used in hedges.

Reclamation: *S. terebinthifolius* has a high ecological plasticity, a short life cycle and very rapid growth; it is therefore recommended for the restoration of degraded areas and especially gallery forests.

TREE MANAGEMENT

Since Brazilian pepper tree can be invasive if not properly managed, application of appropriate mechanical, chemical and biological measures should be employed to check its wanton spread.

GERMPLASM MANAGEMENT

Seed storage orthodox and seeds can maintain viability for about 5 months.

PESTS AND DISEASES

Common fungal diseases on this plant include armillaria root rot and Eutypa dieback. Pests include whitefly, citrus pyralid, citrus weevil, red-banded thrips, citrus flat mite, reniform nematode and Brazilian peppertree seed chalcid.

FURTHER READNG

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SUGGESTED CITATION

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