

Adiantum spp.: Maidenhair Fern¹

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<https://ffl.ifas.ufl.edu/>

This document is part of a series originally authored by Edward Gilman.

Introduction

Maidenhair fern is an extremely fine-textured, delicate, herbaceous perennial, with light gray-green, soft foliage (Figure 1). It can reach a height and spread of 1 to 3 feet, depending upon the species (Figure 2, Table 1). This plant thrives in shaded, moist outdoor landscapes or bright, indirect light locations indoors. It is best planted in mass on 2- to 3-foot centers but may also be used as a specimen plant or edging in a small garden area. This plant makes an excellent groundcover, spreading easily on creeping stems. Maidenhair fern is also fitting for use in hanging baskets, containers, or as a houseplant. Southern maidenhair fern and brittle maidenhair fern are species native to Florida. A third species, fragrant maidenhair fern, is native to Florida, but endangered.



Figure 2. Full Form—*Adiantum capillis-vernus*: southern maidenhair fern.

Credit: Ryan Fessenden



Figure 1. Leaf—*Adiantum capillus-veneris*.: southern maidenhair fern.

Credit: Ryan Fessenden

General Information

Scientific name: *Adiantum* spp.

Pronunciation: ad-ee-AN-tum species

Common name(s): maidenhair fern

Family: *Pteridaceae*

Plant type: perennial; herbaceous

USDA hardiness zones: 9A through 11B (Figures 3 and 4)

USDA Hardiness Zones 9A-11A

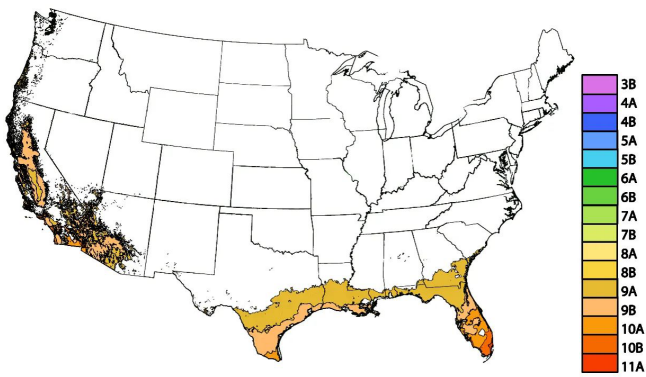


Figure 3. Shaded area represents potential planting zone—USDA Hardiness Zones 9A-11A; 11B within planting zone but not pictured on map.

Credit: This map is based on the 2023 USDA Plant Hardiness Zone Map. Visit <https://planthardiness.ars.usda.gov/> for specific zone information.

USDA Hardiness Zones 9A-11A

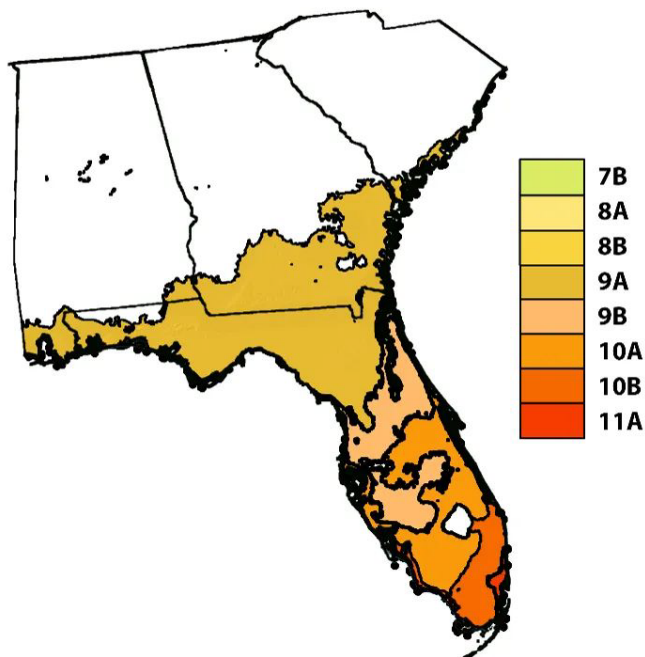


Figure 4. Shaded area represents potential planting zone in the SE Region—USDA Hardiness Zones 9A-11; 11B within planting zone but not pictured on map.

Credit: This map is based on the 2023 USDA Plant Hardiness Zone Map. Visit <https://planthardiness.ars.usda.gov/> for specific zone information.

Planting month for zone 9: year-round

Planting month for zones 10 and 11: year-round

Origin: some species native to Florida

Invasive potential: not known to be invasive

Uses: mass planting; container or above-ground planter; ground cover; edging; indoor plant

Availability: grown in small quantities by a small number of nurseries

Description

Height: 1 to 3 feet; dependent upon species

Spread: 1 to 3 feet; dependent upon species

Plant habit: weeping; round

Plant density: moderate

Growth rate: slow

Texture: fine

Foliage

Leaf arrangement: most emerge from the soil, usually without a stem

Leaf type: odd-pinnately compound

Leaf margin: serrate

Leaf shape: orbiculate; ovate

Leaf venation: parallel

Leaf type and persistence: evergreen

Leaf blade length: less than 2 inches

Leaf color: green

Fall color: no fall color change

Fall characteristic: not showy

Flower

Flower color: not applicable

Flower characteristic: not applicable

Fruit

Fruit shape: not applicable

Fruit length: not applicable

Fruit cover: not applicable

Fruit color: not applicable

Fruit characteristic: not applicable

Trunk and Branches

Trunk/bark/branches: not applicable

Current year stem/twig color: not applicable

Current year stem/twig thickness: not applicable

Culture

Light requirement: plant grows in the shade; plant grows in partial shade

Soil tolerances: occasionally wet; acidic; clay; sand; loam

Drought tolerance: poor

Soil salt tolerances: poor

Plant spacing: 18 to 24 inches

Other

Roots: not applicable

Winter interest: evergreen foliage adds winter interest

Pest resistance: long-term health usually not affected by pests

Use and Management

Maidenhair fern grows in partial to full shade on well-drained soils with high organic matter. It does not tolerate dry soil and requires above average humidity. The southern maidenhair and brittle maidenhair ferns grow best in alkaline soils, while other species grow best in acidic soils. These ferns will cascade over the side of a container in a shady garden spot. Maidenhair ferns may also be used as a groundcover, planted in mass, or used as edging.

Propagation is by division of rhizomes or by spores.

Design Considerations




The small size, tiny leaves, and delicate form of the maidenhair fern make it perfect for containers and small-scale special spaces in the landscape. Maidenhair ferns prefer moist sites in a landscape such as near natural water features, ponds, or fountains. Companion plants should have larger, smooth leaves to contrast with the tiny multiple leaves of the fern. Simple forms and dark green or smooth foliage of companion plants will highlight the delicate foliage. The medium green of the fern leaves will work well with different flower colors, but deep or bright

colors will show better than light pastels. Simple small or medium-sized flowers will contrast more with the tiny foliage without adding too much detail.

Pests and Diseases

Pest issues include scale, mites, mealy bugs, snails, and slugs, but are usually not serious. No diseases of major concern. Maidenhair ferns are susceptible to root rot in soil that is kept too wet.

Table 1. Common species of maidenhair fern and their notable traits.

Species	Image	Size (H x W)	Notable Traits
<i>Adiantum aleuticum</i> : western maidenhair fern	 A photograph showing a dense cluster of bright green, finely textured fern fronds. The fronds are pinnately compound and arranged on a horizontal stem.	1-2.5' H x 1-2.5' W	Fronds arranged on a horizontal stem with pinnately compound leaves
<i>Adiantum capillus-veneris</i> : southern maidenhair fern	 A photograph of a southern maidenhair fern frond. The frond is bright green and has a finely textured, fan-like appearance with a weeping growth habit.	0.5-2' H x 0.5-2' W	Finely textured bright green leaves with a weeping growth habit, this species is native to Florida
<i>Adiantum hispidulum</i> : rosy maidenhair fern	 A photograph of a rosy maidenhair fern frond. The frond is a distinct rosy brown color, indicating it is newly emerged.	1-2' H x 1-2' W	Newly emerged fronds are rosy brown in coloration




Species	Image	Size (H x W)	Notable Traits
<i>Adiantum pedatum</i> : northern maidenhair fern		1-2.5' H x 1-2' W	Most popular species grown, pinnately compound leaves
<i>Adiantum tenerum</i> : brittle maidenhair fern		1-1.5' H x 1-3' W	Large leaf segments, up to 2"
<i>Adiantum trapeziforme</i> : diamond maidenhair fern		1-3' H x 1-3' W	Large diamond-shaped leaf segments give this species a unique texture

Photo Credits: *Adiantum aleuticum*: © Bruce Newhouse, some rights reserved (CC BY-NC-ND); *Adiantum capillus-veneris*: *Adiantum capillus-veneris*; *Adiantum hispidulum*: © Johannes Merz, some rights reserved (CC BY-NC-ND); *Adiantum pedatum*: © Joshua Jones, some rights reserved (CC BY-NC-ND); *Adiantum tenerum*: © Lory Córdova, some rights reserved (CC BY-NC-ND); *Adiantum trapeziforme*: sea-kangaroo, some rights reserved (CC BY-NC-ND)

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