



By Paul Pilon

## *Athyrium nipponicum* 'Pictum'

This Japanese painted fern is one of the easiest ferns to grow, both for the landscape and in containers.

**A**thyrium nipponicum 'Pictum' has great landscape appeal, with its silvery-gray, almost metallic looking, fronds. The delicate tri-color fronds have maroon midribs that intensify its landscape appeal. Despite the fragile appearance of the Japanese painted fern, it is actually one of the easiest ferns to grow, both in

the landscape and when produced in containers. It survives to temperatures of -32° F, giving it hardiness in USDA Zones 4-8.

Plants have a great landscape habit, reaching 12-18 inches tall and wide. Clumps of Pictum will spread slightly each year by means of underground rhizomes but remain clumplike and non-invasive. Japanese ferns have great texture and can be used in group plantings

as garden accents or in combination pots with other shade perennials such as astilbe, heuchera or hosta.

With so many landscape uses, ease of production and wide availability, it is no wonder this Japanese fern is gaining popularity and receiving national recognition. Pictum was the recipient of the 2002 Growers' Choice Award by the Michigan Nursery and Landscape Association and most recently selected by the Perennial Plant Association as the 2004 Perennial Plant of the Year.

### PROPAGATION

Pictum can be propagated by spores or division. Spore propagation is time consuming and is best left to the experts. Not to mention, Pictum propagated from spores are often not true to type — frond coloration may vary.

This Japanese painted fern is best propagated by clump division. The crown can easily be split into halves, quarters or even further if it has enough growing points.

Plants are best divided in early spring as they begin to emerge. Some growers divide in the fall after the foliage has died back, but I prefer to divide in the spring to ensure plant establishment. If necessary, plants can be divided during the growing season, but making the divisions without damaging too many fronds will be difficult.

### PRODUCTION

Growers usually transplant small liners such as 72-count

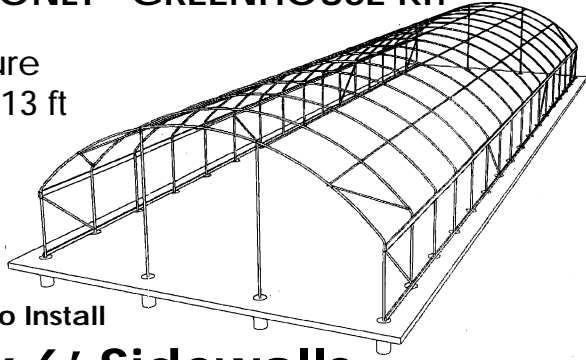


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plugs into 4-inch to 1-gal. containers. Pictum can be planted in any good soil-less medium or perennial mix, preferably one with good water-holding capacity. Pay particular attention to your watering practices when producing ferns. They like to be kept moist at all times. If they are allowed to dry too much, damage will most likely result and possibly even plant death. Conversely, ferns do not tolerate excessive moisture; when left in standing puddles of water, they will get root rot. To prevent potential foliar problems, it is best to water early in the day to allow foliage time to dry before night.

Ferns being produced in 1-gal. pots for spring sales (between April and June), must be planted during the previous summer to allow an adequate amount of time for bulking or filling up the container. Pictum grown in 4-inch pots will finish in 8-10 weeks when grown at an average temperature of 68° F.

I find it beneficial to apply a preventative fungicide drench of Cleary's 3336, OHP 6672 or FungoFlo after planting. To prevent the fronds from becoming sun scorched during the summer months, Pictum should be grown under at least 50-percent shade in the North and up to 70-percent shade in the South. Growers should filter out excessive light levels from the production area, as ferns only require 1,000-2,000 foot-candles.

Pictum requires a relatively small amount of fertilizer in comparison to most perennials. In fact, high salts may cause the roots to be injured, leading to potential problems with plant pathogens such as Pythium and Phytophthora. The pH should be kept within the range of 5.5-6.5. Most growers prefer to use water-soluble fertilizers at low concentrations, such as 50-75 ppm nitrates, to deliver nutrients to their fern crops. A few growers, including myself, deliver nutrients to ferns by incorporating a low rate of controlled-release fertilizer into the media at planting.

The rate of time-release fertilizer to incorporate should be half of that used for most perennials. For Japanese painted ferns, incorporate no more than one-half pound of elemental nitrogen per yard into the growing media. Historically, the main concern with using controlled release fertilizers on ferns was the fertilizers' tendency to continue releasing during the winter months, causing salts to build up and leading to plant injury or even loss. Today, there are still some suppliers whose formulations behave in this manner, but there are many formulations and technologies that do completely shut down during the winter months and do not release nutrients. Check with your fertilizer distributor about their technology and release patterns.

Pictum does not have many major insect or disease problems. Aphids may occasionally feed on them, but their presence is extremely rare. Slugs and snails are the most common pest to ferns and can be easily



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controlled using baits such as Deadline or Sluggo. Botrytis is the main foliar plant pathogen and can usually be controlled by providing adequate spacing, air circulation and shade. Diseases affecting the roots, such as Pythium, can usually be prevented by managing the moisture and fertility levels of the growing medium. Allowing ferns to become overly dry or excessively wet will most likely lead to root injury and ultimately root rot.

Successful over-wintering of Japanese painted ferns is easy, provided a few simple steps are followed. Growers usually over-winter containerized ferns in coldframe structures. In the fall, let plants go completely dormant; they are deciduous, and the fronds will completely die back. Group the pots in a pot-to-pot configuration, and cover with a thermal blanket to help provide additional insulation. Before spring forcing, the dead foliage can easily be removed from the top of the pots. The old fronds should be removed to reduce the likelihood of diseases when active growth resumes.

### AVAILABILITY

*Athyrium nipponicum* Pictum is widely produced as both a plug liner and finished container. Contact your local perennial producer or plant broker for availability of this variety.

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