

HARDY FERNS

ATHYRIUM (a-thi-ree-um)

Possibly from the Greek *athyros*, doorless, referring to the late opening indusium.

Dryopteridaceae Family

Athyrium filix-femina (fi-likes fem-mi-na) referring to the delicate fronds

Common Name: Lady Fern

Northern Hemisphere

Zones: 4 – 8

Height: 18 – 24”

Spacing: 18”



The Lady Fern has lacy lime green fronds with reddish stems. One of the most popular ferns during the Victorian era, very dainty and delicate looking, this fern is quite hardy. As a pioneer species, Lady Fern has been known to grow in cracks and crevices between rocks. The fronds, however, are brittle and will snap off if mishandled. Growing to 18-24 inches high, they will grow into a deciduous asymmetric clump formed by short-creeping rhizomes. The Lady Fern continues to send up fronds all during the growing season. In water retentive soils, this fern will handle quite a bit of sun. It prefers light to full shade in average soils. Lady Fern is found in nature in meadows, open thickets, moist woodlands, ravines, and swamps.

Native Americans used *Athyrium filix-femina* for a variety of reasons. A tea made from the roots acted as a diuretic and a tea made from the stems was used to ease labor pains. It was also used to treat many gynecological related ailments including cancer of the womb and childbirth. New shoots and the rhizomes were roasted, peeled, and the centers eaten. The leaves were used to clean eels and fish after being caught and to cover camas while baking. Fronds were used to separate food layers in steaming pits. They were also used to cover berry baskets. According to some folklore, finding this fern growing wild was considered to be a sign that water was nearby.

Cultivars:

A. filix-femina ‘Lady in Red’

This selection has vibrant burgundy colored stems (stipe). John Lynch, a member of The New England Wildflower Society, found this fern growing in a population in Vermont in 1998. The best color will be apparent after the second year of growth. Just as hardy and attractive as the straight species, this fern brings another color element to the shady garden.

***A. filix-femina* 'Frizelliae' (Tatting Fern)**

The Tatting Fern is a very unique lady fern from Europe. It was found in 1857 by Mrs. Frizell in her Ireland garden. It has narrow fronds **12-18"** long with a green fan shaped pinnae flared out on either side of the stem. It forms a deciduous clump and prefers light shade.



Delicate but Strong.

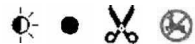
Popular since the Victorian era, the Lady Ferns are dainty-looking but very hardy. While walking through a shaded forest with a lush growth of ferns under the deciduous trees, a delicate lacy lime green fern was spotted. Upon close inspection it was noted that the reproductive structures were borne inconspicuously along the leaf margin and concealed in a manner deemed "female". It was given the common name of "Lady Fern". Also noted were the 'hairy' scales on the stipe (stem). Another way to remember this fern it is to think of it as being a "delicate lady with hairy legs".

DENNSTAEDTIA (den-stet-ee-a)

After August Wilhelm Dennstedt (1776-1826), German botanist.
Dennstaedtiaceae Family

D. punctilobula (punk-tee-lob-ew-la) meaning with dotted lobules.

Common Name: Eastern Hayscented Fern Eastern North America
Zones: 3 – 8 Height: 3' Spacing: 18"



A rapidly growing lime green deciduous native fern with a lacy texture, it spreads from rhizomes and is useful as a ground cover. It grows to 3' and its fronds smell like fresh-cut hay if crushed or bruised.

DRYOPTERIS (*dree-op-te-ris*)

From the Greek *drys*, oak, and *pteris*, a fern.

Dryopteridaceae Family

D. x australis

Common Name: Dixie Wood Fern

Southeastern United States

Zones: 5 – 9

Height: 4 – 5'

Spacing: 18"



This cross between the Log Fern and the Southern Wood Fern is rich in color and is semi-evergreen with large, erect, tall fronds at 4-5' when fully grown. This is a particularly big, strong fern for the woodland garden.

D. marginalis

Common Name: Evergreen Wood Fern

Eastern North America

Zones: 2 – 8

Height: 2 – 3'

Spacing: 18"



Also commonly called the Leatherwood Fern or Marginal Shield Fern, this native clump-grower has dark green, upright fronds between 2-3' in length, and handles shade or part shade.

D. celsa

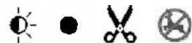
Common Name: Log Fern

Eastern United States

Zones: 5 – 9

Height: 3 – 4'

Spacing: 18"



Semi-evergreen, fast growing, and a tough native wood fern; its upright stems reach 36-48". Hardly surprising it's a Dryopteris!

MATTEUCIA (*ma-too-see-a*)

Named after Carlo Matteucci (1811-1863), a physicist at the University of Florence, Italy and later a politician.

Dryopteridaceae Family

M. struthiopteris (*stoo-thee-op-te-ris*) (*syn. M. pensylvanica*)

From Greek, struthokamelos, an ostrich, and pteris, a fern, as the fronds resemble ostrich feathers. (*pensylvanica* of or from Pennsylvania, United States.)

Dryopteridaceae Family

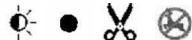
Common Name: Ostrich Fern

Northeast & Central U.S., Canada

Zones 2 – 8

Height: 3 – 4'

Spacing: 18"



This bold, vase-shaped fern has two different types of fronds (leaves). The large deciduous sterile feathery fronds are deeply cut into lobes and will grow to be 3-4 feet tall and 24 inches wide. They form a vase-like crown around the fertile, dark glossy green, deciduous fronds that emerge later. Stiffly erect in the center the fertile fronds will emerge in July-August. They will turn brown and remain upright and ornamental throughout the winter. The fertile fronds are useful in holiday decorations and will last for years. Moving Ostrich Ferns can be difficult when they reach mature height as they are somewhat brittle and may break off easily. Transplanting should be done when they are dormant or before excessive new growth. Ostrich Ferns grow best in average to moist or wet humus rich (high in organic material) soil, keeping consistently moist. Do not allow them to dry out between watering, and with sufficient moisture they will grow to over 6 feet; planted next to a streambed is an ideal location. Requiring partial to full shade, they are intolerant of drought and drying winds as this will cause the fronds to scorch. This fern will tolerate sun if grown in swampy areas. During drought conditions, Ostrich Ferns can be cut back and they will flush out again. Ostrich Ferns grow from stem-like rhizomes and the stolons can be quite vigorous and cover large areas and may also provide erosion control. Keep this fern away from your dainty and expensive plants. Deer do not like to eat ferns in general.

Ostrich Ferns make quite a statement when used in moist woodlands, ponds or stream edges. They grow natively in swampy areas where it can reach 6 feet or taller. The architectural form of this fern can be used as a backdrop for statuary, to block an unsightly view, to direct foot traffic, as a focal point, or in mass. Use the cut fronds (sterile) in cut flower bouquets, and the dried fronds (fertile) in dried flower arrangements and holiday decorations.

Tasty Feathers

Ostrich Fern fiddleheads are edible and are the only fern available for sale to the public in this stage. The flavor has been compared to asparagus. Ostrich Fern fiddleheads were a regular part of the diet of Canadian settlers by the early 1700's. Today they can be found canned, frozen, or fresh. Many restaurants serve them when they become available in the spring. The state of Maine produces a great amount of canned fiddleheads each year. One company reported that they process an average of 25-30 tons of fiddleheads each year.

The young fiddleheads (young coiled sterile fronds) are collected in the early spring by several canning companies. Do not consume any wild gathered plant without consulting an expert in the field. Fiddleheads are usually boiled for 15 minutes or steamed for 10-12 minutes before eating to be safe. The edible fiddlehead is the state vegetable of Vermont.

ONOCLEA (on-oh-klee-uh)

From the Greek *ono,s* meaning vessel, and *kleio*, to close, refers to the closely rolled fertile fronds.

Dryopteridaceae Family

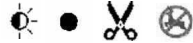
O. sensibilis (sen-si-bi-lis) from the Latin, sensitive.

Common Name: Sensitive Fern Eastern & Central North America

Zones: 2 – 10

Height: 18”

Spacing: 18”



The fronds of the Sensitive Fern are very coarsely textured, having one of the broadest leaves found in the mid-Atlantic region. The deciduous, 18 inches high, sterile fronds are light green and leathery, and very distinctive. The edges of the margins are wavy, not toothed like most ferns. The fertile fronds are brown and shorter than the sterile fronds. The fertile fronds are produced in August thru September and persist into the next year, creating winter interest. The fertile fronds are hardy enough to be used in dried and holiday arrangements. The sterile fronds turn brown and die back to the ground with the first frost, earning its common name of Sensitive Fern. *Onoclea sensibilis* grows from a root system of creeping rhizomes near the surface of the soil. The roots are extensively branched and spread quickly.

Sensitive Fern is found growing in wet meadows, thickets, woods, banks of streams and river, swamps, and in bogs. Sometimes these ferns are found growing along dried up streambeds and drainage ditches that will fill up with water when heavy rains fall. This fern tolerates the toughest of conditions and is considered a low maintenance plant for moist sites. *Onocolea sensibilis* will want to have shade or part shade, but will tolerate sun with adequate moisture. Average garden soil on the acidic side with extra moisture will provide this fern with what it needs to grow well. Sensitive fern will tolerate wet soils and is very useful planted near water. Caution: this fern may cause poisoning and in some cases death in older horses.

Prehistoric and Still Popular.

From the Dinosaur era to the modern world of today, Sensitive Fern continues as it was growing several million years ago. Fossils of this fern have been found dating back more than 60 million years and look remarkably similar to today's Sensitive Fern. This and other ferns have been popular in gardens for many years as well. Evolution gardens, or 'Jurassic' gardens can turn a shady corner into a prehistoric wonderland. By using *Gymnosperms* (conifers) and seedless plants such as ferns, and *Selaginellas* you can replicate the plant culture that early man might have recognized.

OSMUNDA (os-mun-da)

Derivation obscure.

Osmundaceae Family



O. cinnamomea (sin-a-mo-mee-a) meaning brown, from the Latin “cinnamon”.

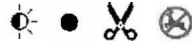
Common Name: Cinnamon Fern

Eastern United States

Zones: 2 – 10

Height: 3 – 4’

Spacing: 18”



The Cinnamon Fern is identified by the fuzzy cinnamon fertile fronds that appear in the center of the green sterile fronds in the early spring. Sometimes confused with the Ostrich Fern, this fern is somewhat shorter at 3-5 feet with the sterile brown fronds disappearing in mid summer while the fertile fronds of the Ostrich Fern are just starting to turn brown. Small tufts at the base of each leaflet of the Cinnamon Fern are another identifying feature. This slow growing fern has a coarse texture and is one of the first ferns to emerge in the spring.

This woodland fern will enjoy constant moisture in an acidic soil. It will handle wet, swampy land and some direct sun if kept moist. *Osmunda cinnamomea* natively grows in bogs, peat lands, thickets, wet woods, swamps, ditches, and streambeds. The fiddleheads are eaten by Ruffed Grouse. These ferns also provide seasonal coverage for birds and other wildlife. Hummingbirds sometime use the fuzz on young fronds to line their nests. Fossil records indicate that members of the Osmundaceae family are among the oldest of ferns.

Cinnamon Ferns have a light, feathery look to them, are easy to grow and very showy. Plant them at a streamside, in a damp woodland garden, shade border, containers, or in a collection of ferns. Combine with other ferns, bold textured, or use as a specimen. Cinnamon fern will naturalize well in wet woodlands and is useful as a background for smaller, colorful ferns and perennials.

Pretty and Useful.

During the early years of Orchid collecting, a rooting medium was needed to keep the Orchids alive and thriving. Sphagnum moss was used initially and then *Osmunda* fiber was introduced. At the time *Osmunda* were readily available and reasonably priced. The *Osmunda* fiber came from the roots and rhizomes of ferns in the Osmundaceae Family. *Osmunda* roots were harvested from old fern colonies where the roots accumulated in extensive mats. The fibers were tough and springy, giving the roots plenty of air and with the process of decaying would furnish all the nutrients the orchids needed. The demand for *Osmunda* fibers increased causing them to become scarce and expensive. Today there are many alternatives to the *Osmunda* fiber and Sphagnum moss, saving the depletion of these natural resources

OSUMNDA regalis (ray-gah-lis) meaning royal.

Common Name: Royal Fern Eastern & Central North America

Zones: 2 – 10 Height: 3 – 4' Spacing: 18"



The Osmundaceae Family of ferns are the most widespread ferns and grow on all continents except Antarctica. Royal Ferns are the only vascular plant reported to grow on all the continents except Australia. *Osmunda regalis* is a handsome fern that does not really look fern-like. The fronds resemble the leaves of the Locust Tree, (*Robinia pseudoacacia*), and the habit is almost shrub like. This fern is also made up of fertile and sterile fronds. The sterile fronds will grow to 3-4' tall and sometimes, in damp sheltered places, this fern will grow to be 8-10' high. The fertile fronds will develop in April. Stiff and upright, this fern makes a formal statement in the shady garden. Grow in moist to wet soils, full shade to part shade. *Osmundas* are frequently referred to as a flowering fern due to the appearance of the fertile fronds.

Legends in Their Own Time.

Many legends exist of the origination of Royal Fern. One legend in Great Britain is of a wife and daughter of Osmunder, a waterman of Loch Tyne, who took refuge among Osmunda (the fern) during an invasion of the Danes. Another legend describes Osmunda as the Saxon equivalent of the Norse god Thor. In Europe, Royal Fern became known as St. Christopher's herb as Christianity spread. The legend states that travelers, including the Christ-child were carried safely over rivers by the saint as a test of faith. St. Christopher is the patron saint of waterman, seafarers, boatmen and all other travelers. According to Slavic mythology, the sporangia (the fertile frond) of Royal Fern, called "Perun's flowers", had assorted magical powers including giving their holders the ability to defeat demons, fulfill wishes, unlock secrets, and understand the language of trees.

POLYSTICHUM (po-lis-ti-kum)

From the Greek *polys*, many and *stichos*, row. The sori are in many rows. Polypodiaceae Family

P. acrostichoides (a-kro-sti-koi-deez) meaning resembling the Acrostichum fern, a tropical genus, where the sori completely cover the undersurface.

Common Name: Christmas Fern North America

Zones: 3 – 9 Height: 2' Spacing: 18"



This hardy evergreen fern is similar in looks to the indoor Boston Fern Santa's boots. Some sources suggest that the common name comes from the fact that this fern is still green at Christmas time. Christmas Fern grows well in rocky

soil in shade, but will tolerate some sun if it stays moist. Extremely drought tolerant, this fern will do well in dry shade. It prefers sandy and loamy moist soils in full to semi-shade in a variety of pH levels. The 2 feet tall fronds are dark green, shiny, and evergreen, creating winter interest. A characteristic of the genus *Polystichum* is the bent-over-backwards tassel-like form of the unfurling fronds. This rhizomatous fern will increase its fountain-like asymmetric clumps but will not spread. Christmas Fern can be found growing natively on forest shady floors, and rocky slopes. It is also found growing on banks of streams, through out the woods, and along trails in the woods. During the winter, Christmas Fern stands out against the brown leaves on the forest floor. Use this popular fern in woodland gardens, shade gardens, on the edges of shady areas, in deep shade, as cut greens in arrangements, and in containers. Old fronds should be removed in the spring to improve the appearance of the plant and to remove potential areas that may harbor fungal diseases.

Native Americans used this fern to treat a variety of complaints. A tea from the roots was used as a blood purifier, emetic, and febrifuge and in the treatment of chills, fevers, pneumonia, stomach or bowel complaints and rheumatism. The root was also used as a poultice or decoction in the treatment of rheumatism. The Cherokee used the fiddleheads for food.

Christmas all Year Long.

As early settlers moved from the east coast to Kansas and Texas they would keep seeing this remarkable fern in the woods and along the shady pathways. Evergreen in the winter, it was sometimes the only plant that was still green. From their Native American friends, they learned to use this plant for medicine and food. Settlers from New England carried their holiday traditions to their new homes, including using this fern for decorations.

THELYPTERIS (thel-ip-ter-is)

Thelypteridaceae Family

T. noveboracensis

Common Name: New York Fern

Eastern North America

Zones: 4 – 8

Height: 1 – 2'

Spacing: 18"

Looks like Hayscented Fern but has fronds that taper at both ends, unlike Hayscented that are triangular shaped. Native to moist woodlands and pastures, ravines, bogs, swamps, and field margins of Eastern deciduous forests. New York Fern grows in a variety of soils, on banks of streams, forming large colonies. It has a moderate growth rate and spreads easily. New York and Hayscented are the most sun-tolerant of the native ferns.

ORNAMENTAL GRASSES

CAREX (*kah-reks*)

From the Greek *keiro* meaning to cut, referring to the sharp edge of the leaf margins.

Cyperaceae Family

C. flacca (glauca) *glauca* referring to glaucous leaves (covered with a thin waxy covering that rubs off easily) or usually appears blue-gray and the term may be used to refer to such a color.

Common Name: Blue Sedge Northeastern United States, Canada

Zones: 5 - 9

Height: 6 – 8”

Spacing: 18”



According to some sources this Sedge is native to the United States while others say that it has been naturalized or introduced. Concentrated in the states of New York and Michigan, *Carex glauca* is a cool season grass. It will start to grow early in the spring and look its best when the weather is cool. In the spring brown or winter injured foliage should be trimmed off. There is no need to cut the whole plant back. The arching shape of this blue leaved *Carex* lends itself to many design possibilities. Blue Sedge is also known as Carnation Grass because of its narrow, evergreen, blue leaves that grow 6-8 inches high with a 3/16 inch width. During the year the leaf blades can be green to blue. The flowers that appear in late spring are relatively insignificant and can be purple-black in color. Very rhizomatous, this *Carex* will spread slowly but steadily. A fine textured mass; it will work well as a ground cover or as a lawn substitute and is adaptable to a wide range of soils. *Carex flacca (glauca)* prefers moist soil but is drought tolerant when established. It can also be lightly walked on and carries some salt tolerance. Use in full sun to partial shade.

Native to grasslands, sand dunes and marshes, Blue Sedge is very effective with bold textured plants. It serves well as a fill in plant and is great for edging and borders, massing, low maintenance gardens, containers, rock gardens, shaded areas near ponds or streams, ground cover, and for erosion control on shore banks. Blue sedge can also grow 2 inches below the surface of the water, making them useful in a bog or water feature.

Good to have Around.

Carex glauca helps to keep flower borders neat and tidy as it weaves around plants, forms a nice groundcover, spreads around stepping stones, and separates flowers that would otherwise compete with foliage or flower color. When they intrude into the surrounding plants, simply scoop clumps up from around the edges and move them around to spread them out.