

Home Garden Fiddlehead

VEGETABLE CROPS PRODUCTION GUIDE

FOR THE ATLANTIC PROVINCES

Prepared by the ADVISORY COMMITTEE ON VEGETABLE CROPS

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Introduction

Fiddleheads are the coiled croziers of the ostrich fern, *Matteuccia struthiopteris*, which is found in an almost continuous belt in the north temperature zone around the world. However, it is only in New Brunswick, Nova Scotia and the state of Maine that its use as a spring delicacy has developed and thrived. While the native habitats of the ostrich fern are the lightly shaded woodlands, on the fertile alluvial soils along rivers, the plant will readily adapt to the home garden. Fiddleheads can be grown in vegetable gardens or incorporated as part of your landscaping in shaded areas.

The fronds of the ostrich fern can range from 0.5.m to over 2.0m in height depending on the site (soil, moisture, light) and the genetic makeup of the plant itself. These large foliage fronds emerge in May and June, and may be followed by the emergence, in July, of much smaller, modified spore-bearing fronds. The foliage fronds emerge as tightly coiled croziers (fiddleheads) as soon as temperatures permit in the spring. The ostrich fern plant has a perennial crown which grows 1-2 cm in height each year. New roots are produced annually from the base of the current year's fronds.

New plants (crowns) are produced regularly from underground rhizomes. While the plant produces an abundance of spores, very few new plants are ever produced in this way.

Soil and Site Preparation

The ostrich fern is adaptable to a wide range of soil types, but performs best in a well-drained, sandy loam soil with abundant organic matter. Contrary to popular belief, the ostrich fern will not survive in a poorly drained (wet) soil! In droughty soils, fiddleheads will respond to regular irrigation. Sites should be protected from prevailing summer winds.

Fiddleheads prefer partial shade. Growth will be suppressed in full sunlight or in excessively shaded areas.

Soils should be well prepared prior to planting. The addition of organic matter is recommended. A pH in the range of 5.5 to 6.5 is adequate. Addition of organic matter such as peat moss or compost may be beneficial. Improvement to drainage should be made if necessary and sand can be added to clay soils. Incorporate a complete fertilizer such as 6-12-12 at a rate of 7 kg/100m² prior to planting.

Plant Material

At present there are few local sources of nursery grown crowns for transplanting. However, crowns from the wild transplant readily, if dug while dormant during the spring or fall seasons.

When gathering wild crowns, select from areas which you know produce vigorous plants, select only young crowns, and do not remove more than half the crowns present at any site.

Planting

Fiddleheads can be planted as a solid bed or in rows. For beds, crowns should be planted 50 cm on center. In rows, crowns should be planted 50 cm apart with rows 1.5 m apart. Dormant crowns of the ostrich fern can be planted before crozier emergence in the spring and after first frost in September or October. When planting, crowns should be set so that the soil just covers the top of the dormant crown (Figure 1). This is done to encourage new root growth above the previous root mat.

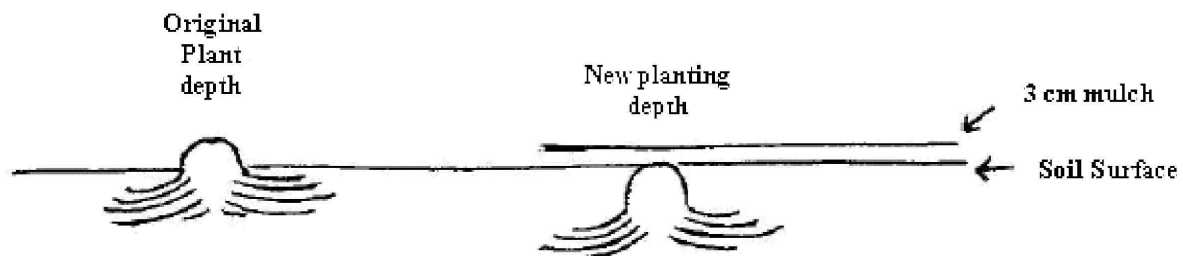


Figure 1. Illustration of desired planting method for ostrich fern

Following planting, the beds or rows should be mulched with 2 cm of any organic mulch such as leaf compost, peat moss, decomposed sawdust, etc.

Establishment and Maintenance

Once planted, the number of crowns should double each year due to rhizome growth. A plant population of 30 crowns per m² is desirable. To encourage rapid establishment, a 2 cm mulch should be applied each fall for the first 4 years. Once the desired population has been achieved, mulching can be reduced to one every 2 to 3 years.

Fertilization with a 10-10-10 fertilizer at 5 to 7 kg/100 m² should be carried out each spring. Weeds must be controlled during the establishment period. Once the ostrich fern develops its

own leaf canopy, it will shade out most new weeds.

Harvesting and Handling

No fiddleheads should be harvested for the first two years. By the third season, the original crowns can be harvested, and by the fourth year, all crowns one or more years of age may be harvested.

There are two rules to follow when harvesting in order to prevent a loss of crown vigor:

For those crowns producing less than 6 croziers in the first flush of growth, do not harvest more than 6 croziers total per crown.

For those crowns exceeding 6 croziers in the first flush, harvest only the first flush. Harvest will vary from 6 to 12 fiddleheads per crown depending on crown vigor.

To maximize your harvest, at least 15 cm of stem can be harvested with the fiddlehead without sacrificing quality. To minimize cleaning, harvest when fiddleheads are dry and flick the brown scale from the heads prior to breaking or cutting the stem.

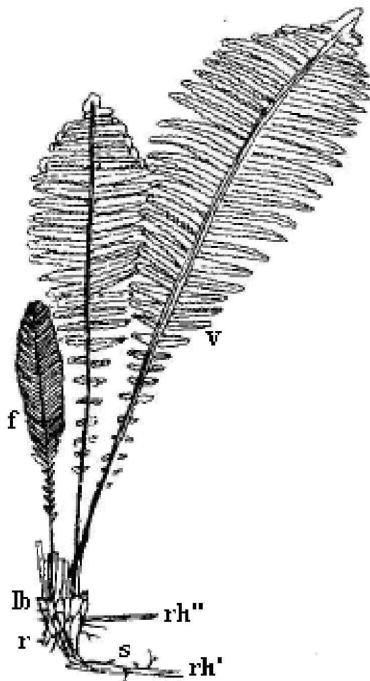


Figure 2. Drawing of a mature sporophyte of *Matteuccia struthiopteris*. The 3 types of leaves are scale or cataphyll (s), fertile (f), and vegetative (v). The scale leaves are restricted to the underground runner (rh'), and secondary runners (rh'') developed from the crown. Both the leaf bases (lb) of the previous year's growth and the wiry black roots (r) are evident (modified Bower, 1928).

Storage and Conditioning

Harvested fiddleheads should be immediately cleaned in cold water, drained, and refrigerated in a container that will conserve moisture. Guides for cooking and freezing can be found in the publications recommended below.

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