Non-Timber Forest Product (NTFP) Highlight: False Unicorn Root



Wild false unicorn root (image credit: adobe)

Other common names: Star Grub Root, Devil's Bit, Starwort, Blazing Star, and Fairy Wand — Latin Name: Chamaelirium luteum Family: Melanthiaceae (Bunchflower family)



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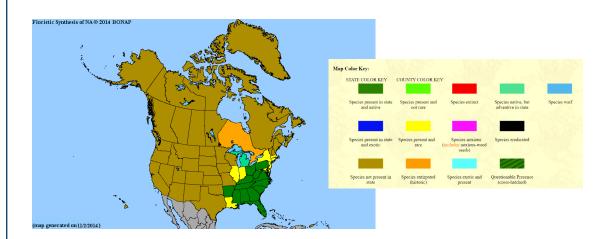
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Range:

False unicorn root is currently found throughout the eastern coastal states of the US. Historically, its range extended up into Canada but has become extinct in the northern regions and is considered rare in the states where it is currently found.



LUCE #23-10(11)-FS003

Description:

False Unicorn Root is a slow-growing, compact plant. It has two- to six-inchlong rosette leaves that grow close to the ground. These plants are dioecious, meaning they produce separate male and female plants. Only female plants produce seeds. The male plants have showy-white flowers while female plant flowers are smaller and yellow in color. False Unicorn Root rhizomes are small, typically a half to two inches long, and anywhere from a light grey to dark brown in color.

Propagation:

There is limited knowledge on how to cultivate false unicorn roots, as most stock is currently sourced from the wild. It is possible to propagate this plant by seed and root cuttings. Growers have had success with both approaches by following a process similar to the propagation of goldenseal.



Female False Unicorn Root – photo by Steven Foster



Male False Unicorn Root Flower
– photo by Steven Foster

By seed: False Unicorn Root seeds have various levels of success with germination. Seed germination happens after a period of cold, followed by warm stratification. Seeds can be planted outdoors in shaded woodland beds or planted in seedling flats in a shade house. If starting plants in a container, use a high organic soil mix of two parts peat moss or coconut coir, one part decomposed pine needles, one part perlite, and one-half part sand. Sow seeds in late fall or early winter, approximately one-eighth of an inch deep. Leave seedlings to grow in the nursery bed or garden flat for at least one year before planting out in forested beds.

By root: To propagate plants via roots, carefully cut rhizomes into at least one-quarter-inch sections and leave pieces to callus overnight before planting. These cuttings should have at least one eye-like growth bud, where new growth will originate. Plant cuttings into a prepared nursery bed or pots for at least one year before transplanting into permanent forest beds. Place young plants six to ten inches apart. Cover beds with a light layer of mulch. Growers have had success with pine needles, bark mulch, or rotted conifer-derived sawdust. Continue

to top-dress beds with mulch as needed throughout the growing seasons. Plant roots should be ready to harvest four to six years after planting.

Pests:

Weed control is critical for the first few years and is best accomplished by hand weeding. Snails and slugs can become pests under moist conditions. Construction of simple beer traps, diatomaceous earth, and copper strips are ways to reduce slug and snail pressure. Deer and armadillos have also been observed eating flower stalks. Fencing and offering other food sources can reduce browse pressure.

Harvest:

Harvest of False Unicorn Roots involves digging up the entire plant. Since destructive harvests are required to collect roots, it is advised to harvest mostly male plants and leave the females, as the females are the only ones to produce seeds. Fresh roots are susceptible to mold, so it is best to keep unwashed roots stored in sphagnum moss until ready to process. Keep roots moist and wash once ready for further processing.

Conservation status:

Endangered. False Unicorn Root is now considered rare in the wild due to both overharvesting and habitat destruction.

Market potential:

Currently, the market for false unicorn root is small. This is mostly due to its rarity and endangered status. Many herbalists and supplement companies have adjusted formulas to include other herbs with similar modes of action in the body. In 2004, buyers paid wild harvesters between \$27.50 and \$45 per dried pound of root. Seeds sold for over \$200 per ounce and dried root sold retail for \$100 per pound. Market studies predict a rising demand for the plant and those with cultivated stock will be in an advantageous position when the market does take off.

References:

Carroll, C. 2011. False Unicorn Cultivation. [Internet]. Rutland (OH): United Plant Savers; [cited 2022 Oct 18]. Available from https://unitedplantsavers.org

Extension Foundation 2022. False Unicorn or Fairy Wand (Chamaelirium luteum). [Internet]. National Cooperative Extension; [cited 2022 Oct 18]. Available from https://forest-farming.extension.org

Filyaw, T.R., editor. 2019. The Forest Farmers Handbook: A Beginners Guide to Growing and Marketing At-Risk Forest Herbs. Rural Action.