

# Common Fennel

(*Foeniculum vulgare*)

**Description:** Common Fennel (*Foeniculum vulgare*) is a very large perennial herb native to the Mediterranean that grows from 4 to 10 feet tall. It has feathery dark green to bronzy leaves and flat topped umbrella shaped clusters of yellow flowers.

Common fennel blooms from July to September, producing large numbers of seeds. The seed, foliage, stems and roots all have a strong licorice scent. It is often used for culinary purposes since the flavor is similar to anise.

**Impacts:** Common Fennel readily escapes cultivation. A single one year old plant can produce thousands of seeds in its first year, and over 100,000 seeds on mature plants. The seeds can remain viable in the soil for many years. The large, woody tap root can grow to 10 feet long. It forms dense infestations, crowding and shading out plants that are critical for native wildlife habitat. It has escaped cultivation and become a weed in disturbed waste areas, roadsides and embankments. Fennel seeds, can be spread by water, machinery, animals and agricultural products. Seeds lie dormant in the soil for several years. It can also reproduce from pieces of the root crown, which can be spread during cultivation and by water. Once it is well established, fennel tends to dominate a site, excluding other vegetation.

Bulbing fennel, *F. vulgare* var. *azoricum*, (also known as Florence fennel) does not pose a threat and is not an invasive problem or listed as a noxious weed in Washington state or Thurston County.

**Control Options:** Thurston County's Integrated Pest Management emphasizes cultural, biological, and manual control methods to keep pests and vegetation problems low enough to prevent damage. The goal of Thurston County's pesticide use policy is to minimize the use of pesticides by utilizing and providing information about the most effective control options that are available and practical.



Plant bulbing fennel as an alternative to common fennel



Common fennel



Bronze fennel

## ► Cultural / Habitat

Purchase only non-invasive, annual varieties of fennel. Also, be very careful when removing plants that have mature seed. Clip and bag the seed heads before you cut the plants, otherwise, you could accidentally make the problem worse by spreading seed into other areas. Always replant whenever soil is disturbed. Fennel germination in bare earth areas will be rapid if the plants were allowed to seed in past seasons. Always follow-up manual removal efforts with a rigorous monitoring plan to remove any newly emerged seedlings.

## ► Manual / Mechanical Techniques

Small seedlings can be hand pulled or dug when soil is soft or loose. Use tools like a trowel or hoe to uproot small plants. Mature fennel plants are difficult to remove due to the large taproot. Dig out individual plants with shovels or picks when the soil is moist. If the root breaks remove the upper portion of the roots (3-6"). Cutting the root before the plant sets seeds reduces the number of re-sprouts. Cutting will not control common fennel unless it is done numerous times throughout the growing season prior to seed set and for at least 4 successive seasons. Mowing too early encourages numerous sprouts as well.

## ► Biological

There are currently no biological control methods available for controlling Common Fennel.



## ► Chemical

Spot spraying an herbicide containing the active ingredient glyphosate (example: Roundup Pro®, Glyfos®, etc.) can be effective in controlling Common Fennel. Currently, products containing the active ingredient glyphosate are the only herbicides for the control of Common Fennel that are considered “low in hazard” by Thurston County’s pesticide review process for the potential for chemical mobility and persistence.

***Thurston County has observed that most ready-to-use, pre-mixed products do not contain sufficient active ingredients to be as effective as concentrated products that are then mixed with water to create a specific finished concentration. The following instructions are for products containing 41% glyphosate which will be mixed down to a specified dilution rate. Be sure to read your label carefully, and make adjustments to rates accordingly.***

The Roundup Pro® label recommends mixing a 1–2% solution for hand-held or spot applications for control of perennial weeds, the rate depending on size, species and conditions. Because of the extensive tap roots and woody stalks, the higher (2%) solution is the most appropriate. Spraying with a lower percentage solution may not kill the plants, which can contribute to herbicide resistance.

### **Foliar applications of glyphosate (ROUNDUP PRO™):**

- Spot applications with glyphosate products are effective. Spot application means the herbicide is applied only to the plants and not on the surrounding plants or soil. Spray each plant thoroughly on the stems and leaves enough to be wet but not dripping.
- Glyphosate is non-selective, and will injure any plants that it comes in contact with, including grass.
- Keep people and pets off treated areas until spray solution has dried.

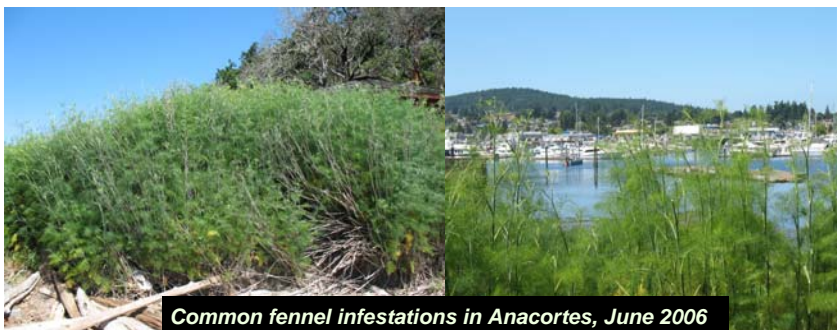


Foeniculum vulgare Mill.  
Image processed by Thomas Schoepke  
www.plant-pictures.de

To 1 gallon of water add:	2.66 oz. Roundup Pro® (for a 2% product spray solution)
1 fluid ounce = 2 Tablespoons	

**Timing:** Spot applications are most effective when plants are actively growing and before they develop blooming stalks, usually before June.

**READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS.** Obey all label precautions and safety measures. Always use personal protective equipment that includes coveralls, waterproof gloves,



Common fennel infestations in Anacortes, June 2006

shoes plus socks, and protective eyewear. Use of brand names does not connote endorsement and is for reference only; other formulations of the same herbicides may be available under other names. Information provided is current as of the date of the fact sheet. Pesticide product registration is renewed annually and product names and formulations may vary from year to year.

### **REFERENCES:**

Written Findings of the Washington State Noxious Weed Control Board,

[http://www.nwcb.wa.gov/documents/2007\\_listings/Foeniculum%20vulgare,%20final.pdf](http://www.nwcb.wa.gov/documents/2007_listings/Foeniculum%20vulgare,%20final.pdf)

The Weed Workers' Handbook, The Watershed Project and California Invasive Plant Council, 2004.

California Invasive Plant Council, Invasive Plants of California's Wildland <http://www.cal-ipc.org/ip/management/ipcw/pages/detailreport.cfm@usernumber=51&surveynumber=182.php>



Thurston County Public Health & Social Services  
2000 Lakeridge Drive SW  
Olympia WA 98502  
Phone: 360-754-4111  
T.D.D. 360-754-2933  
[www.co.thurston.wa.us](http://www.co.thurston.wa.us)

Thurston County Noxious Weed Control  
11834 Tilley Road S.  
Olympia, WA 9812  
Phone: 360-786-5576  
T.D.D. 360-754-2933  
[tcweeds@co.thurston.wa.us](mailto:tcweeds@co.thurston.wa.us)