



## Stinging nettle

(*Urtica dioica*)

### Description:

Stinging nettle is a native perennial that is widely known for its unpleasant stinging hairs on the stems and lower leaf surface. It reproduces by wind-dispersed seeds and creeping underground rhizomes and grows in dense clumps, often forming large colonies.

**Root system** - Extensive underground network of rhizomes can spread 5 feet or more in a season. Fibrous roots are produced along the rhizomes. New plants are often established from rhizome fragments that have been spread by machinery.

**Stems** - Stems are slender and erect, mostly unbranched, growing 3 to 6 1/2 feet tall. They can be covered with bristly stinging hairs or have a few soft hairs (fewer in the upper part of the stem).

**Leaves** - The green leaves have saw-toothed margins, a smooth surface on the top, and stinging hairs on the underside. Leaves are broadly to narrowly egg-shaped (2 to 6 inches long, 1 to 2 inches wide), with a rounded or heart-shaped base and a pointed tip.

**Flowers** - Tiny, greenish-white wind-pollinated flowers are produced between May and October. They are arranged in clusters on slender, branched spikes formed in the leaf axils. Male and female flower clusters are produced on the same plant. Female flowers produce small, dry, oval-shaped, yellow to grayish-tan, single-seeded fruit that are clustered along drooping flower spikes. One plant can produce over 20,000 seeds that are immediately viable and remain viable ten or more years in the soil.



Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org

### Impacts:

Stinging nettle spreads slowly by rhizomes, allowing it to form dense colonies that can exclude other species. It thrives in damp, nutrient-rich soil and tolerates partial shade, but does not grow well where soil nutrients are low. Nettles can be found in pastures, orchards, neglected yards, waste places, roadsides, stream banks and ditches, as well as along the edges of fields and wooded areas. If these sites occur along hiking trails or other areas frequented by people, plants can be a nuisance or even a health hazard. It can also be a problem for farmers when large stands block irrigation waterways or encroach on pastures or other areas where livestock is handled.



Stinging hairs on the stem and leaves inject toxins into the skin, causing localized pain, reddish swelling, itching and numbness. The symptoms caused by these toxins can last for a few minutes to a few hours. Most animals, particularly those with short hair or areas of exposed skin, can be affected by stinging nettles in the same manner as humans. Airborne pollen, which is shed in large amounts when stinging nettle is in flower, is an important contributor to hay fever.

Conversely, stinging nettles are also a very important part of our native ecosystem. Stinging nettles are utilized by many beneficial insects as a source of food and shelter and are a critical host plant to many species of butterflies.

When handled carefully, they have many uses as food, fertilizer, fiber and herbal remedies. Young plants can be harvested in the spring and cooked like spinach. They are very nutritious, high in protein, vitamin C, calcium, iron and magnesium. Soaking nettles in a lidded bucket full water for a week or two produces an all purpose liquid plant fertilizer of high quality. Watered down 10 to 1 it can benefit the entire garden, particularly tomatoes, which have a high mineral requirement. Be sure to wear gloves and other protective clothing whenever handling or working near stinging nettles.

### 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 IPM is to minimize the use of pesticides by utilizing and providing information about the most effective control options that are available and practical.

#### ► Biological

There are currently no biological control methods available for stinging nettle.

### ► Cultural / Habitat

While stinging nettle does take advantage of newly disturbed sites to become established, it does not tolerate frequent, repeated cultivation. It also does not compete well with grass. Once an infested area has been treated or tilled, it should be planted with desirable grasses and mowed frequently to prevent nettles from re-establishing. Be careful to clean equipment and tools after working in a nettle infested area in order to prevent spreading seed or root fragments to new areas.

### ► Manual / Mechanical

Hoeing or hand pulling seedlings is effective in gardens and flower beds, however, eradicating an established colony is difficult due to the perennial root system. Frequent cultivation (removing plants each month) does reduce nettle stands in time, and frequent mowing will reduce vigor and prevent seed production. Periodic cutting (cutting once or twice in a season) will do very little to control stinging nettles and nothing toward eradication of a colony.

### ► Chemical

Nettles produce new shoots from their roots so it is important to use a systemic herbicide such as [glyphosate](#) that will move into the root system and kill the entire plant. Applications using a hand-held or backpack sprayer with a 2% glyphosate concentration are effective in nettle control. Spray the plants until they are wet but not dripping and follow label directions to mix herbicide to the desired concentration. Thurston County rates glyphosate products high in hazard for carcinogenic potential. The risk from spot spraying stinging nettle is considered low provided the applicator wears a long sleeved shirt, pants and chemically resistant gloves. Glyphosate is non-selective and will injure any plant that it comes in contact with.



Many glyphosate products have an initial glyphosate concentration of 41% (example: Roundup Pro®, Glyfos®, etc.), they are recommended to be diluted to a 2% solution for spraying nettles. Pre-mixed, ready-to-use glyphosate products do not contain enough active ingredient to control stinging nettles.

Herbicides containing the active ingredient [imazapyr](#), (Habitat® or Arsenal®) are also effective. Imazapyr is considered “moderate in hazard” by Thurston County due to its persistence and mobility and is the County’s second choice for herbicide control. Imazapyr products are non-selective (can damage all plants) and require a licensed applicators to use them.



Otto Wilhelm Thomé: Flora von Deutschland, Österreich und der Schweiz (1885) -Permission granted to use under GFDL by Kurt Stueber.

Herbicide spraying within 50 feet of a water body requires the use of an herbicide formulated for aquatic settings. Stinging nettle is often found growing near water bodies, and aquatic formulations of [glyphosate](#) (Aquamaster®, Rodeo®) and imazapyr (Habitat®) are recommended. However, aquatic herbicides are restricted for use in Washington State to licensed applicators only.

### Timing:

Stinging nettles can be treated at any time they are actively growing, though applications made when plants are still young and tender are somewhat more effective. Treating plants while they are still short can reduce the amount of herbicide necessary to cover an area, and may also reduce the risk of off target damage.

### Pollinator Protection:

To minimize negative impacts to bees and other pollinators, treatment prior to blooming is recommended. Removal of flowers before treating can be an option. If treatment must occur during blooming period, try to spray early or late in the day or on cloudy cool days.

**READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS.** Obey all label precautions, safety measures, and wear all recommended personal protective equipment. Use of brand names does not connote endorsement and is for reference only; other products with the same active ingredients may be available under other names. Pesticide product registration is renewed annually and product names and formulations may vary from year to year.

### REFERENCES:

Weeds of the West, 9th Edition, 2001, pg. 584-585  
Ohio State University Extension Agricultural Research and Development Center Perennial & Biennial Weed Guide Stinging Nettle (*Urtica dioica*)  
<http://www.oardc.ohio-state.edu/weedguide/singlerecord.asp?id=210>  
Pojar & MacKinnon. Plants of the Pacific Northwest Coast. 1994. ISBN 1-55105-040-4  
Kozloff, Eugene N. Plants and Animals of the Pacific Northwest. 1976. ISBN 0-295-95597-X165-167.



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