

Impacts of Invasive Thistles

- Invasive thistles commonly invade disturbed areas: pasture land, waste areas, roadsides, agricultural land, riparian areas, forest openings, etc.
- They can spread rapidly.
- Lack of control can result in reductions in crop production of up to 25% in infested areas.
- Invasive thistles take the place of other forbs and native grasses and most are not palatable to livestock; in large amounts, slenderflower thistle can be toxic to sheep and cattle.
- Invasive thistles eventually form dense monocultures which decrease biodiversity. These monocultures do not provide habitat for most wildlife, including many game animals.

Why are our Native Thistles Important?

- Native thistles provide food for insects that also eat invasive thistles.
- Native bees and butterflies are great pollinators and a valuable agricultural asset. Our declining populations of native thistles provide excellent habitat for these pollinators without threatening agricultural systems.
- Native thistles were used by the Calapooia and Chinook peoples and are a part of our cultural heritage.

Invasive Thistle Management

Prevention: Thistles are shade intolerant and prefer disturbed areas. Cultivate native plants and use careful grazing practices to minimize disturbance.

Biological Control: Introduced species that attack invasive thistles are present in the Willamette Valley. *R. conicus* and *L. planus* attack native thistles. Contact the OR Dept. Agriculture for more info.

Chemical Control: Herbicides can be used to control the growth and spread of invasive thistles. Contact your local agricultural extension agent or soil and water conservation district office for specific treatments.

Bull Thistle

Hand pull or cut 1 inch below soil surface before flowering. Tilling, as well as goat and sheep grazing, are also effective.

Slenderflower & Italian Thistle

Mowing is not effective. Hand pull/dig at seedling stage. For larger infestations, till deeply before flowering occurs.

Canada Thistle

Mow or hand pull every 3-4 weeks for entire growing season.

C. brevistylum photos courtesy of Toby Query. Cover photo Dominic Maze. All other photos courtesy of Gerald D. Carr. For more information contact Dominic Maze: dominic.maze@portlandoregon.gov or dominicmaze@gmail.com
www.portlandonline.com/bes/invasives
This brochure was made possible by the Western Invasives Network, the City of Portland Bureau of Environmental Services, and the efforts Dr. Catherine De Rivera's students at Portland State University. May be reproduced for non-commercial purposes and without written consent. 2013.

THISTLES OF THE WILLAMETTE VALLEY

Native or Non-Native Invasive?



How do you identify among native and non-native thistles?

How do non-native, invasive thistles harm the environment?

Why are native thistles important?

How do you manage non-native, invasive thistles?

WILLAMETTE VALLEY NATIVE THISTLES

Indian Thistle, Clustered Thistle, Short Styled Thistle (*Cirsium brevistylum*)

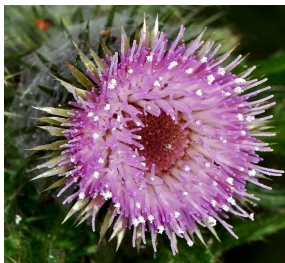


- General: 0.5–2.5 m tall, taprooted biennial or short-lived perennial, wooly below flowerhead, rarely branched

- Leaves & stems: coarsely toothed with weak spines, thin, wooly below and green above. **Stems soft.**
- Flowers: red–purple (rarely white), slender flowerhead base, dense bristles, **style (small, white stalks) exerted out flower tubes 1–2 mm**

Edible Thistle (*Cirsium edule*)

- General: 0.4–3 m tall biennial/perennial with taproot, simple stems.



- Leaves: wooly below, becoming hairless above, deeply pinnately lobed, dense small spines on the margins
- Flowers: Few pink–purple (rarely white) flowerheads, **leaves below flowerhead are**

lobed, becoming simple and tipped with a spine, style exceeds flowers by 0.25–0.75 cm

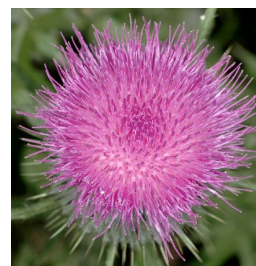
Few Leaved Thistle (*Cirsium remotifolium* var. *odontolepis* & var. *remotifolium*)



- General: 0.3– 1.8 m tall, taprooted, short-lived perennial, weakly erect stems, sparingly branched, wooly or becoming hairless
- Leaves: wooly beneath, becoming hairless above, deeply lobed or divided, spiny, lower leaves have spiny petioles (leaf stems), **upper leaves lack petioles**
- Flowers: several clustered **creamy white** to purple flowerheads, bell-shaped, many narrow spiny-tipped leaves below flowers

WILLAMETTE VALLEY NON- NATIVE, INVASIVE THISTLES

Bull Thistle (*Cirsium vulgare*)



- General: 0.3–2 m tall; biennial; stems are leafy, branched and wooly
- Leaves: narrow lobes; terminal lobe longer than laterals; tipped with yellowish spine-like prickles; wooly under-side; **conspicuous spiny “wings” extend down stem from leaves** and covered with stiff, blunt hairs
- Flowers: large (2.5–5 cm), purple, many narrow leaves below flowerhead tipped with spines

Canada Thistle (*Cirsium arvense*)



- General: 0.5–2 m tall, perennial, deep creeping root system that forms aggressive colonies
- Leaves: generally lobed, wooly beneath, **ruffled margins** with very sharp yellowish prickles or entire, lower leaves with narrow bases
- Flowers: **small** (less than 2 cm), **clustered**, purple blooms, **unisexual** (composed of male or female flowers), male flowers shorter (1.25–1.5 cm) than female flowers (2.25–2.5 cm), **leaves below flowerhead less than 2cm long**

Italian Thistle (*Carduus pycnocephalus*) and Slenderflower Thistle (*Carduus tenuiflorus*)

- General: similar-looking annuals, 0.3–1.8 m tall



- Leaves: deeply lobed, white spots on Italian, **“wings” extend down stem**, wooly underside
- Flowers: clustered, pink–purple, 2.5 cm across, blooms early (Apr–June) dying by Aug. Italian has fewer blooms, and stiff, forward pointing hairs on flower leaves