

Scotch Thistle



- *Biennial*
- *Purple flower*
- *Hairy leaves, grayish appearance*
- *Aggressive & will form dense stands*
- *District crews spray throughout the season*



It is a vigorous biennial plant with coarse, spiny leaves and conspicuous spiny-winged stems. Scotch Thistle is a biennial plant, producing a large rosette of spiny leaves the first year. The plants typically germinate in the autumn and exist as rosettes throughout the first year, forming a stout, fleshy taproot.

In the second year, the plant grows (0.2–) 0.5–2.5 (–3) m tall and a width of 1.5 m. The leaves are 10–50 cm wide, are alternate and spiny, often covered with white woolly hairs and with the lower surface more densely covered than the upper. The leaves are deeply lobed with long, stiff spines along the margins. Fine hairs give the plant a grayish appearance. The massive main stem may be 10 cm wide at the base, and is branched in the upper part. Each stem shows a vertical row of broad, spiny wings (conspicuous ribbon-like leafy material), typically 2–3 cm wide, extending to the base of the flower head.

The flowers are globe shaped, 2–6 cm in diameter, from dark pink to lavender, and are produced in the summer. The flower buds form first at the tip of the stem and later at the tip of the axillary branches. They appear singly or in groups of two or three on branch tips. The plants are androgynous, with both pistil and stamens, and sit above numerous, long, stiff, spine-tipped bracts, all pointing outwards, the lower ones wider apart and pointing downwards. After flowering, the ovary starts swelling and forms about 8,400 to 40,000 seeds per plant.



Scotch Thistle can spread rapidly reproducing only by seed. Seeds that germinate in late autumn become biennials. But when they germinate earlier, they can behave as annuals. **Buried seed can remain viable in the soil seed bank for at least seven years and possibly for up to twenty years or more.** Yearly seed production and seed dormancy are highly variable depending on environmental conditions.

It is difficult to eradicate because of its drought resistance. It can spread rapidly and eventually dense stands prohibit foraging by livestock & wildlife. Infestations often start in disturbed areas such as roadways, campsites, burned areas, and ditch banks.



Control

Mechanical: Small infestations may be physically removed or cut a few centimeters below the soil surface ensuring that no leaves remain attached to prevent re-growth. Mowing during early flowering will not kill the plant but will reduce seed production.

Chemical: There are several herbicides that are effective on Scotch thistle up through bud to early bloom stage. Please consult the District for specific use recommendations. The long seed viability, aggressive nature, county wide distribution and difficulty to find/treat scattered plants make this one of the District's priority weeds for treatment. Continual monitoring and treatment is critical to long term management of this specie.

Biological: There are no biological control agents that have been specifically released for Scotch Thistle control in the United States.