



Slender Russian Thistle *Salsola collina* Pallas

Common Names: Tumbleweed, Russian thistle

Native Range: E. Europe to E. Asia; introduced from Russia.



Description: Russian thistle is an erect annual forb in the goosefoot family (Chenopodiaceae). It is a round, bushy, much-branched plant growing 1 to 3-1/2 feet high. The branches are slender and soft when young, woody when mature. The leaves are alternate. The first ones start off being dark green, soft, slender, and 1 to 2-1/2 inches long. These drop off and the next set of leaves is short, stiff, spiny, and not over 1/2 inch long. Flowers are small, green-white or pink in color. The flowers are hermaphrodite (have both male and female organs) and are pollinated by wind. Seeds are about 1/16 inch in diameter and shaped like a cone. It broadcast seeds by breaking off at the base and because it is shaped like a ball, tumbles as the wind scatters seeds, thus the name *tumbleweed*.

Habitat: Russian thistle typically grows in sandy soils on dry plains, in cultivated fields, roadsides, waste places, grain growing areas and disturbed natural and semi-natural plant communities. It prefers light (sandy) and medium (loamy) soils that are acid, neutral and basic (alkaline) but can grow in very alkaline and saline soils. It cannot grow in the shade.



Distribution: This species is reported from states shaded on Plants Database map. It is reported invasive in CO. California also quarantines Russian thistle seed.

Ecological Impact: Russian thistle can threaten native plant ecosystems. This species can reduce yield and quality of numerous agricultural crops. It depletes soil moisture, interferes with tillage operations, and serves as a shelter or food source to many insects, vertebrate pests, and crop diseases. Large plants can reduce highway safety by obstructing views along right-of-ways and causing drivers to swerve their cars in an attempt to avoid colliding with windblown plants. In many areas, plants accumulate along tree rows and fence lines, posing a serious fire hazard that necessitates hours of manual labor for cleanup and disposal. A slight scratch or abrasion from the plant may result in itching or reddened patches of skin. The windblown pollen of Russian thistle can cause an allergic reaction in people during summer.

Management and Control:

- **Mechanical:** Many mechanical strategies are effective in controlling these thistles. Mow very young plants. Plants should never be mowed after seed set has occurred, as this will facilitate seed dispersal to new areas. Tillage will control both seedling and larger plants. However, tillage increases disturbance, which favors additional germination of seeds. An intensive tillage program that completely prevents seed production for 2-3 years may eliminate these thistles. Hand pulling of large plants is extremely difficult and may be injurious due to the spiny nature of Russian and barbwire thistle. Plants burned to the ground or cut at or below ground level do not grow back from roots, but plants cut to 1 cm or more above ground level can resprout from adventitious auxiliary buds.
- **Chemical:** For roadsides, pre-emergent herbicides applied in the fall can provide season long control. Post-emergent applications should be made in the seedling stage for effective control. Post-emergent applications generally do not provide long term control due to repeated flushes of seed germination following herbicide application. Avoid developing resistance by using a combination of management strategies and rotating between herbicide modes of action.
- **Biological:** There are two insects that have been approved and released for control of Russian thistle: a leaf mining moth (*Coleophora klimeschiella*) and a stem boring moth (*Coloephora parthenica*). Both are available for release in California.

Preemergent Herbicide	Post-emergent Herbicides
Bromacil	Bromoxynil
Chlorsulfuron	2,4-D amine and ester formulations
Diuron	Dicamba
Hexazinone	Glyphosate
Isoxaben	Triclopyr

References: <http://plants.usda.gov>, www.ibiblio.org/pfaf/cgi-bin/arr_html?Salso, www.usgs.nau.edu, www.cdfa.ca.gov/phpps/ipc/weedinfo/salsola.htm