



Russian thistle *Salsola kali* L.

Synonyms : Frequently used synonyms - *Salsola australis* R.Br., *Salsola iberica* (Sennen & Pau) Botsch, *Salsola kali* L. var. *tenuifolia* Tausch., *Salsola kali* L. ssp. *tragus* (L.) Celakovsky, *Salsola kali* L. ssp. *ruthenica* (Iljin) Soo, *Salsola pestifer* Nelson.

Common Names: Russian thistle, prickly Russian thistle, saltwort, tumbleweed

Native Origin: Russia

Description: An annual tap-rooted forb in the goosefoot family (*Chenopodiaceae*) that grows 1 to 3 feet in height. The rigid, erect plant is spiny and profusely branched. Leaves are green alternate, simple, sessile, and net-veined. The small greenish flowers are perfect, axillary or in a terminal spike, and lack petals. The five sepals are green or pink and persist around the fruit. The fruit is a utricle with one horizontal-positioned seed. One plant can produce up to one million seeds. It reproduces by seeds.

Habitat: Plants grow in cultivated fields, roadsides, railroad right-of-ways, pastures, waste areas, irrigated areas, river bottoms, rangeland, disturbed areas and forests edges. It also favors inland and coastal dunes and sandy beaches where it often competes with rare native plant species. It is found on a variety of soil types including alkali soils.

Distribution: This species is reported from states shaded on Plants Database map (Figure 1) and US Army map (Figure 2). It is reported invasive in AZ, CA, ID, TX, and VA.

Ecological Impacts: Plants break off and disperse seed over long distances as they are carried along the ground in a tumbleweed-fashion by the wind. Frequently, new infestations appear as a "trail" of tumbleweed seedlings across fields. They are strongly competitive in semiarid areas and are heavily favored by disturbance.

Control and Management:



- **Manual-** Hand pulling of large plants is extremely difficult and may be injurious due to the spiny nature of this plant. Always wear gloves if attempting to hand – pull these species. Cutting, mowing or tilling will help control this invasive plant.
- **Chemical-** It can be effectively controlled using dicamba, glyphosate or paraquat. 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. Follow label and state requirements.



Figure 1



Figure 2

• **Biological control-** Two insects have been approved and released for control of Russian thistle: a leaf mining moth (*Coleophora klimeschiella*) and a stem boring moth (*Coloephora parthenica*).

References: www.forestimages.org, <http://plants.usda.gov>, www.nps.gov/plants/alien, http://www.hort.purdue.edu/newcrop/duke_energy/Salsola_kali.html#Description, http://el.ercd.usace.army.mil/pmisp/plants/html/salsola_.html, www.cdffa.ca.gov/phpps/ipc/weedinfo/salsola.htm, www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7486.html, <http://extension.usu.edu/rangeplants/forbs/russianthistle.htm>