

# Russian Thistle: Options for control

**Russian Thistle** (*Salsola tragus*), commonly known as tumbleweed. It was accidentally introduced to the United States by immigrants in 1873 with contaminated flax seed in South Dakota. Further spread by contaminated flax in railroad cars and by the wind. By 1895 it was widespread and to the west coast.

Russian thistle is a nuisance in agricultural areas, depleting water and nutrients out of the soil. It grows easily in disturbed areas such as crop fields, along highways, gravel pits and along fence lines. Russian thistle is extremely drought tolerant. They have a taproot that can grow over 6 feet deep with lateral roots growing over 5 feet.

Russian thistle is a summer annual and reproduces by seed. The stems become woody at maturity and can vary in length from 8-36 inches. The stems also have reddish to purplish stripes. Young plant's leaves are small, narrow and dark green. It can harbor pests like leafhoppers that vector viruses.



Russian Thistle able to germinate after the crop is harvested.



Seedlings have narrow leaves.



Stems are a reddish purple with stripes.



At this point livestock may graze it. When in bloom the flowers are produced in the junction between the leaf base and the stem. They lack petals but have an outer whorl of wing-like sepals that are petal like and often pinkish to red. A large Russian thistle plant can produce more than 200,000 seeds. The seeds are spread when a mature plant breaks off at the base and tumbles across the land in the wind. The seeds are curved and can germinate in any soil and with very little moisture. Most seeds germinate the first year and any remaining seeds survive less than two years.

Russian thistle plants have become resistant to specific herbicides such as Glyphosate, 2,4-D, Dicamba products, and all ALS inhibitors such as Telar. To be the most effective at controlling the infestation regardless of herbicide resistance or not, the earlier the treatment is applied while the plants are small and not well established the more effective the control will be.



Flowers are a pink to reddish.

## Key identifying traits

- **Leaves** are narrow with needle-like pointed tips
- **Flowers** are at the junction of the leaf base and the stem and a pinkish reddish color.
- **Stems** are Reddish purple with strips.
- Mature plants are ball shaped



Mature plants break off and tumble across the land spreading seeds.

## Biology and ecology

- Russian thistle is an Annual.
- Bushy plant can grow at least 3 feet tall.
- Reproduces by seeds.
- Single plant **produces more than 200,000 seeds.**
- Roots penetrate the soil up to 6 feet. **deep** and lateral roots may extend 5 feet.
- Flowers mid-summer until early fall.
- Can grow with minimal amount of water.
- Prefers full sun and disturbed soils.



Leaves are narrow short and have a pointed tip.



# CONTROL MEASURES:

For this and other publications, see our website at: [www.co.lincoln.wa.us/weedboard](http://www.co.lincoln.wa.us/weedboard)

## Prevention:

- Minimizing soil disturbance and being aware of gravel and fill dirt. **Early detection** is vital to prevent invasion.

## Biological:

- Biocontrol is established in California but are ineffective.

## Cultural:

- Healthy competitive vegetation helps lessen chance of invasion, not disturbing soil.

## Mechanical:

- Hand pulling or hoeing is effective on small populations.

## Chemical:

- Best controlled in the seedling stage of growth with 24-D and Clopyralid, (Curtail) or Dicamba.
- Other chemical options in another group Fluroxypyr. (Vista)
- For best Results always use a surfactant.
- Read the label** instructions before applying.



Russian thistle is more bushy but can be tall and slender.



Kochia left and Russian thistle Right



Kochia is an annual that reproduces by seed. Stems turn red as the plant matures and dies.



Tumble pigweed above.  
Tumble pigweed below.

## Russian thistle Look A Likes

Kochia and Russian thistle are common invaders of crop fields, roadsides and disturbed areas. They are both resistant to many herbicides.

Tumble pigweed is another broadleaf that looks similar to Russian thistle. Tumble pigweed has pale stems, and larger leaves & small spiny clusters. These three plants are commonly seen on roadsides and railroad right of ways.



Kochia stem  
Russian thistle tumbleweed.



Russian thistle stopped by a fence line.



Photos and references courtesy of: USDA; University of California; Kansas State University, Steve Jones-Daily Camera, Oregon State University, University of Missouri, PNW Handbook.

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