

### Western salsify (*Tragopogon dubius*)

**Identification:** Native to Eurasia and northern Africa, western salsify is an exotic plant of the Asteraceae family. When western salsify has gone to seed, it's hard to believe it's anything but a dandelion on steroids (below right). A 3 to 4 inch fluffy sphere sits atop a tall (12-40 inch) stem. The sphere is comprised of seeds with long, slender beaks, each with an umbrella-like appendage of plumose bristles, technically termed a "pappus." Prior to seed set, it's not so distinct. Before it bolts, it has linear, grass-like leaves that can be readily mistaken for grass, but salsify leaves will feel smoother and more rubbery than grass leaves and they will exude a milky juice when broken. After bolting, the yellow flowers resemble dandelions, but have 10 or more linear bracts that extend beyond the yellow petals (below left). The stem below the flower is swollen and hollow and the plant has a thick, fleshy taproot (giving the hand puller a feeling of real satisfaction when pulling it up). A similar species, meadow salsify (*Tragopogon pratensis*), resembles western, but the bracts do not extend beyond the flower petals.



Photos by Allison Lansverk

**Impacts:** While western salsify is forage for wildlife including blue grouse, sage grouse, elk and deer, it appears to be increasing in Montana and has been observed to form dense stands, reducing the vigor of more desirable vegetation. Research in British Columbia, Canada, suggested that western salsify reduced the leaf area and shoot-to-root ratio of bluebunch wheatgrass, an important component of native rangeland. It has been especially problematic for managers of CRP lands where its presence reduces the value of the land and presents a risk of invading adjacent croplands.

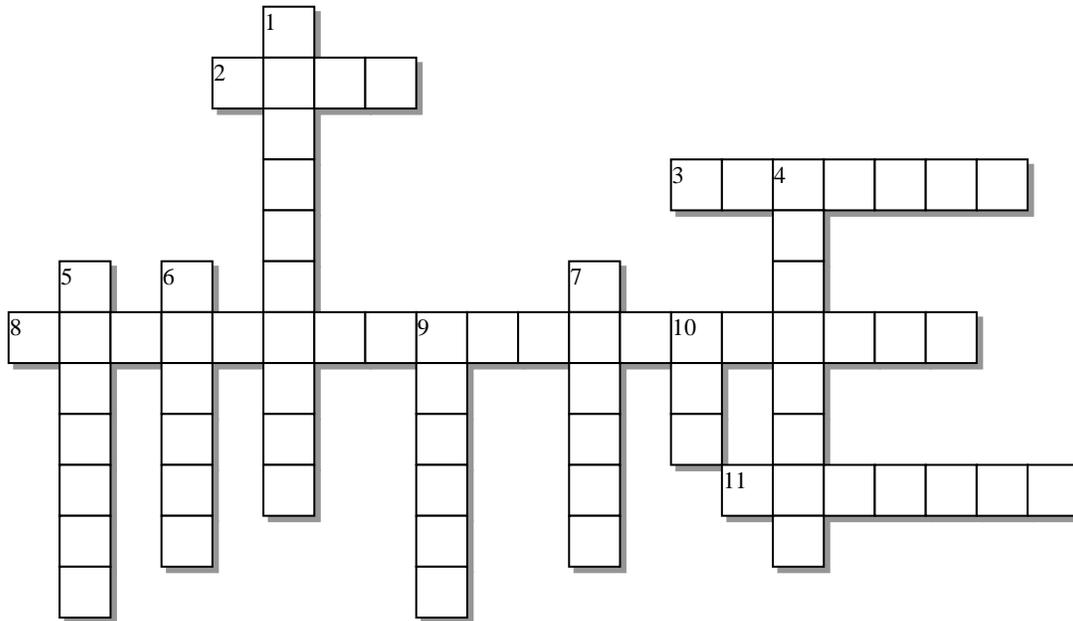
**Habitat:** Western salsify occurs across a wide variety of vegetation zones ranging from arid grasslands to mesic forests. It can grow in soils ranging from sandy to clay loam. While it is frequently found in disturbed sites, the upright growth of the long, narrow grass-like basal foliage enables seedlings to quickly gain access to light through competing vegetation, meaning it also occurs in less disturbed areas as well. It is found commonly along rights-of-way, pasture, rangeland, and CRP throughout Montana.

**Spread:** The fluffy, umbrella-like appendages on the seed enable wind dispersal. Wind may disperse seed up to 825 feet. Seed viability is estimated to be less than 13 months in the soil.

**Management Priorities:** Because western salsify has only recently become problematic in range, pasture, and CRP lands, very little information exists regarding its control. The majority of research has taken place in Canada where western salsify is listed as a noxious weed (Ontario Province). Small infestations of western salsify can be hand-pulled or dug. Research suggests burying seeds greater than three inches deep prevents emergence, so tilling may be effective. Western salsify is a common seed contaminant, so buying weed-free, high quality seed can help prevent introduction and further spread. For more information on this plant, and results from a recent study on management options, look for a new Extension publication on western salsify in early 2012 at our website

(<http://www.msuextension.org/invasiveplantsMangold/extensionsub.html> ).

**Weed Post Puzzle: Test your knowledge of Western Salsify**



**Across:**

- 2 - Dispersal is not by animals, but by \_\_\_\_\_ .
- 3 - Western salsify is not on the Montana noxious weed list, but you'd better pull it quick if you live in this Canadian province.
- 8 - In dense stands, western salsify has been observed to reduce this common native bunchgrass (two words)
- 11 - If ten or more bracts extend beyond the yellow petals, it's \_\_\_\_\_ salsify

**Down:**

- 1 - To verify the seedling leaves aren't a grass plant, break a leaf and look for this (two words)
- 4 - Western salsify seed viability is estimated at \_\_\_\_\_ months
- 5 - The \_\_\_\_\_ bristles, or pappus, enable the seeds to float like parachutes.
- 6 - Flower color is \_\_\_\_\_
- 7 - If ten or more bracts do not extend beyond the yellow petals, it's \_\_\_\_\_ salsify
- 9 - While not recommended as a straw, the stem is swollen and \_\_\_\_\_ below the flower head.
- 10 - It's not rhizomatous, but has a \_\_\_\_\_ root.

Solutions are posted on the MSU Extension Invasive Rangeland Weed website:

<http://www.msuextension.org/invasiveplantsMangold/extensionsub.html>

