

MSU Extension Invasive Plants

Monthly Weed Post, August 2022

Western Salsify (*Tragopogon dubius*)

Introduction Western salsify, also called goatsbeard, is a non-native plant in the Asteraceae family that can be weedy in rangelands, pastures, Conservation Reserve Program (CRP) lands, and roadsides. The name “salsify” means “a plant that follows the sun,” aptly named because open flowers point towards the sun; flowers usually close by late morning or early afternoon. Western salsify was brought to North America by European settlers as a food plant (the roots are edible) and ornamental.

Identification Western salsify has grass-like leaves that clasp the stem at the base. It is easily mistaken for a grass prior to bolting and flowering, but salsify leaves will feel smoother and somewhat rubbery compared to grass leaves and will exude a milky juice when broken. Bright yellow flowers have 10 or more linear bracts that extend beyond the petals. Only one flower is produced per stem, but several flowering stems (sometimes up to 14) can be produced by a single plant. Each flowerhead matures to form a 3-to-4-inch diameter fluffy sphere. The sphere is comprised of seeds with long, slender beaks, each with an umbrella-like appendage of bristles, technically termed a “pappus.” The stem below the flower is swollen and hollow, and the plant has a thick, fleshy taproot. See the [MSU Extension MontGuide Western Salsify](#) to learn about similar salsify species and how to differentiate between them and western salsify.



Biology and Ecology Western salsify reproduces by seed, and wind-dispersed seeds may travel up to one-eighth of a mile. Each flower produces about 20 to 120 seeds of two types, a heavier, darker seed from the outer ring of flowers and a lighter seed from the center flowers. This difference in seed weight may result in differences in germination and dispersal. Western salsify is a monocarpic perennial, which means it dies after seed production; most plants mature in two to four years. Wildlife, including blue grouse, sage grouse, elk and deer, utilize western salsify, however this species 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.

Management Very little information is available regarding western salsify control. The plant is easy to hand-pull or dig when soil is moist. Some herbicide products containing the active ingredient metsulfuron methyl include western salsify on the label (e.g., Escort®, Chapparral™, Cimarron Plus®). Research conducted on CRP in northcentral Montana suggested 2,4-D plus dicamba was effective if western salsify was sprayed at the grass-like rosette stage (prior to bolting and flowering); control was minimal if spraying was delayed to the time of flowering. The same research project suggested mowing was not effective, but additional research is needed.