

Tall tumbled mustard (*Sisymbrium altissimum*)

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Introduction Tall tumbled mustard is an exotic species in the mustard family. This species grows throughout Montana, inhabiting disturbed soil of grasslands, agricultural fields, streambanks, and roadsides from low to mid elevations. Tall tumbled mustard has been introduced widely in North America and is thought to have originated in Eurasia.

Identification Tall tumbled mustard forms a rosette early in its life cycle. Mature plants can be up to five feet tall and are usually branched from a single stem arising from a thick taproot. Lower leaves are up to eight inches long and lobed, with a triangular lobe at the end of the leaf. Upper leaves tend to have narrower, more linear lobes. The lower leaves and stems have sparse, long, simple hairs.

Flowers are yellow with four petals. Spreading seed pods are linear, cylindrical, and up to four inches long. Occasionally weed managers may find that this plant looks similar to other weedy plants such as rush skeletonweed (*Chondrilla juncea*), a Montana noxious weed. Tall tumbled mustard's clear sap, four-petaled flowers, and long, linear seed pods help distinguish it from this species.

Biology, Ecology, and Impacts Tall tumbled mustard is typically a winter annual species, though some individuals may emerge in the spring. This plant can occasionally act as a biennial species. Tall tumbled mustard only reproduces by seed. Seeds are dispersed when plants senesce, break off at the ground, and tumble in the wind. Tall tumbled mustard is an early-seral species, meaning it can establish and become abundant in a disturbed site, but does not persist as perennial species become established.

Management Cultural control is a great option for tall tumbled mustard management, along with limiting seed production. Over the long term, aim to establish and maintain a perennial plant community that meets management objectives, while limiting disturbances that can increase the potential for tumbled mustard establishment. For the shorter term, there are several control measures that can effectively decrease tall tumbled mustard abundance. For mechanical control, handpulling prior to seed production is effective for small patches. Mowing can be helpful if timed before seeds are viable, and tillage and cultivation can also be used in certain settings to control this plant prior to seed production. There are several herbicide options available for control of tall tumbled mustard in rangelands, pastures, and roadsides. For example, 2,4-D and dicamba can effectively control smaller, rapidly growing plants. Additional herbicides such as metsulfuron (e.g., Escort) can be used pre-emergence or post-emergence on young, rapidly growing plants.

