

Wild proso millet

Colorado Department of
Agriculture

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Key ID Points

Identification and Management



Identification and Impacts

Wild proso millet (*Panicum miliaceum*) is an annual grass that is native to Asia or middle Europe. This grass grows an erect stem, that branches near the base. It can grow 2 to 6 feet tall. Leaf blades are 1/2 to 3/4 inches wide, with stiff hairs on both the upper and lower surfaces of the blade. Leaf sheaths contain and open with long spreading hairs. Fused at the base of the leaf, are the ligules that are a fringe of 1/16 of an inch long dense hairs. The inflorescence grows to be a 4 to 12 inches long spreading panicle that is nodding or erect when mature. The panicle is usually not fully extended from the leaf sheath. Spikelets on the panicle are 1/4 inch to 1/2 inch long and are two-flowered. The upper flower of the spikelet is fertile and the lower spikelet is sterile. The glumes are pointed at the tip, ovate and strongly nerved. At the plants maturity the seeds shed. The seeds are brown to black in color, shiny, and smooth. Plants can be easily identified by the seed coat that stays attached to the fibrous root system.

Habitats for Wild proso millet are cultivated fields, waste places,

roadsides, and disturbed sites. Wild proso millet is easily spread through its prolific seed production. Seeds can be spread by harvesting equipment, birds, manure, irrigation water, and small animals.

The key to effective control of Wild proso millet preventing the establishment of plant populations and limiting seed production. Since Wild proso millet likes to grow in cultivated fields, identifying the plant in early growth stages is imperative. Control options include, mechanical, cultural and chemical. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Wild proso millet is designated as a "List C" species on the Colorado Noxious Weed Act. It is required to be either eradicated, contained, or suppressed depending on the local jurisdictions managing this species. For more information, visit www.colorado.gov/ag/weeds or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.



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Panicum miliaceum

**CULTURAL**

Within cultivated fields Wild proso millet can be effectively controlled using a rotational crops system. Minimizing disturbance in native pastures can assist in preventing establishment, and planting native grasses and forbs. For specific seed recommendations contact your local Natural Resources Conservation Services for seed mixes.

**BIOLOGICAL**

Currently there is not any biocontrol available for Wild proso millet. Biocontrol takes many years of research and development. For more information contact the Palisade Insectary of the Colorado Department of Agriculture at 970-464-7916.

**MECHANICAL**

Hand pull or dig when soil is moist, can be an effective control method. Bag specimens carefully so as not to scatter seeds. Mowing and tilling can contribute to the spread of seeds. The key to effective control is to prevent seed production and/or spread.

Integrated Weed Management:

Preventing the establishment and seed production is the key to effectively controlling Wild proso millet. Once the plant is established and depending on site features, an integrated weed management approach can be effective.

HERBICIDES

NOTE: The following are recommendations for herbicides that can be applied to range and pasturelands. Rates are approximate and based on equipment with an output of 30 gal/acre. Please read label for exact rates. Always read, understand, and follow the label directions. The herbicide label is the LAW!

HERBICIDE	RATE	APPLICATION TIMING
Glyphosate (Roundup Promax)	16 - 32 oz/acre	Apply to early growth stages to plant bolting stages.
2,4-D + Glyphosate (Recoil)	1.2 to 1.8 qts/acre	Apply to early growth stages to plant bolting stages. Add non-ionic surfactant @ 0.32 oz/gal of water or 1 pt/100 gal of water.
Pendimethalin (Prowl)	Up to 4.8 pts/acre	Apply to early growth stages. Add non-ionic surfactant @ 0.32 oz/gal of water or 1 pt/100 gal of water.

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