

Category A—High

Blue mustard (*Chorispora tenella*)



Photo credit: EnviroPlan Partners



Photo credit: P. Alexander



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Origin

Native to Europe and Asia, common in Russia and southwest Asia.



Photo credit: S. Dewey, USU

Description

Blue mustard is an annual forb found in agricultural and disturbed sites. They have distinct small pink to purple flowers, with four petals that form a cross shape. The petals may appear twisted, due to slight dentation on the petal margins. The fruits form long linear seed pods, or siliques, that grow along the stems. Basal leaves are dentate, with the leaf margins becoming sinuate higher on the stem. Leaves and stems are covered in sticky, glandular hairs. Plants can grow to about 18-20 inches tall. Plants can grow quickly and produce seeds within a week of flowering, with seed production and flowering occurring simultaneously. Each seed pod produces several small seeds. Individual plants have a large taproot.

Biology

Plants germinate in late fall and overwinter as a rosette, resuming their growth in the spring. Their small growth form and life cycle give them an advantage in the early spring where they can grow quickly before other native plants have started (Lyons et al., 2006).

Locations

Populations have been detected in areas outside of Chinle, AZ.

Ecological Threat and Management Concerns

These plant germinate quickly and easily. Because individual plants can produce hundreds to thousands of seeds, they can spread easily in areas with regular disturbance, such as rangelands, community development areas, and agricultural fields. Their life cycle gives them a competitive advantage in the spring, as they can access nutrients and resources before other native plants or crops have started growing, reducing the growth of more desirable plants (Lyons et al. 2006). Early flowering can also reduce the effectiveness of some control methods, such as herbicides. In rangelands, blue mustards can alter the flavor of milk in dairy cows.

Key ID Tips

- Basal leaves are dentate while stem leaves are not.
- Tapered silique seed pods
- Flowers pink to purple with four petals in the cross shape. Petals may appear twisted or wavy.
- Plants have a strong, musky odor.

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Additional safety measures and limitations may apply for each method. Refer to the [Navajo Nation Integrated Weed Management Plan](#) for more information.

Mechanical/Manual Removal

Grubbing, digging, and hand pulling are effective removal methods if done before seeds are produced. Tilling can also be effective when plants first start growing in the late fall or early spring. Cutting and mowing are not effective as underground plant parts may remain and resprout.

Biological

No biological control organisms are available.

Cultural Control

Grazing is not effective and could affect some livestock products, such as milk. Other cultural control methods, such as mulching and cover crops can be effective at preventing growth and establishment. Mulch should be several inches thick to prevent germination and plant growth. Burning is also not effective as it can stimulate resprouting.

Chemical

Use of herbicides can be effective, however effectiveness varies by active ingredient. Refer to the product labels for information application rates, timing, and approved application methods.

Recommended herbicides include:

- 2,4-D (least effective)
- Chlorsulfuron methyl
- Glyphosate
- Metsulfuron methyl

References

DiTomaso, J.M., G.B. Kyser et al. 2013. *Weed Control in Natural Areas in the Western United States*. Weed Research and Information Center. University of California. 544 pp.

Lyons, D.J., R.N. Klein, R.G. Wilson. 2006. Blue mustard control. University of Nebraska Cooperative Extension. Publication no. G1272

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