Musk thistle Identification and Management

Habitats for Musk thistle include disturbed, overgrazed areas. Once a pasture is infested, the livestock carrying capacity for that area is significantly decreased. The plant may also occur on rangeland, roadsides, ditches, riparian areas, and trails.

The key to effective control of Musk thistle is to prevent the plant’s seed production. Planting desirable grasses and forbs to outcompete Musk thistle can also be effective. Dense Musk thistle stands can be treated by spot treatments of herbicides and by a persistent mechanical program. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Musk thistle is designated as a “List B” species in the Colorado Noxious Weed Act. It is required to be either eradicated, contained, or suppressed depending on the local infestations. For more information visit www.colorado.gov/ag/cs and click on the Noxious Weed Management Program. Or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.

Musk thistle can grow up to 6 feet tall. The leaves are spiny, waxy, and dark green in color with a light green midrib. The flowers are purple, large in size (1.5 to 3 inches in diameter), nodding, and terminal. The flowers are surrounded by numerous, lance-shaped, spine-tipped bracts. You can expect to see flowers from late May and June. Seed set usually occurs in June or July and effective management options will then become limited.
Integrated Weed Management recommendations

CULTURAL
Establishment of selected grasses can be an effective cultural control of Musk thistle. Contact your local Natural Resources Conservation Service for seed mix recommendations. Maintain healthy pastures and prevent bare spots caused by overgrazing. Bare ground is prime habitat for weed invasions.

BIOLOGICAL
Livestock tend to avoid grazing on musk thistle, although horses and cattle have been known to eat the flowerheads. Biological control insects, such as the seed head weevil and the crown weevil are effective on large infestations. When used together, these insects provide fair to good control. Contact the Insectary, Colorado Department of Agriculture to get complete information at 970-464-7916 or visit www.colorado.gov/ag/csd.

MECHANICAL
Any mechanical or physical method that severs the root below the soil surface will kill Musk thistle. Mowing or chopping is most effective when Musk thistle plants are at full-bloom. Be sure to properly dispose of the flowering cut plants since seeds can mature and become viable after the plant has been cut down.

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!

<table>
<thead>
<tr>
<th>HERBICIDE</th>
<th>RATE</th>
<th>APPLICATION TIMING</th>
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<tbody>
<tr>
<td>Picloram (Tordon 22K - <em>Restricted use chemical</em>)</td>
<td>1 pint/acre + 0.25% v/v non-ionic surfactant</td>
<td>Apply in spring to rosettes.</td>
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<tr>
<td>Aminopyralid (Milestone)</td>
<td>5 fl. oz./acre + 0.25% v/v non-ionic surfactant</td>
<td>Apply in spring rosette to early bolting growth stages or in fall to rosettes.</td>
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<tr>
<td>Metsulfuron (Escort XP)</td>
<td>1 oz. product/acre + 0.25% v/v non-ionic surfactant</td>
<td>Apply in spring from rosette through very early flower growth stages. (Can prevent viable seed formation if applied no later than the first viable flowers begin to open.)</td>
</tr>
<tr>
<td>Chlorsulfuron (Telar)</td>
<td>1 oz. product/acre + 0.25% v/v non-ionic surfactant</td>
<td>Apply in spring from rosette through very early flower growth stages. (Can prevent viable seed formation if applied no later than the first viable flowers begin to open.)</td>
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