### Field bindweed Identification and Management

Field bindweed (*Convolvulus arvensis*) is a non-native deep-rooted perennial that reproduces from seed and creeping, horizontal roots (rhizomes). Field bindweed stems are prostrate (grows low to the ground) and twining, and grow up to 6 feet long. Leaves are distinguishable by their arrowhead shape. The flowers are bell or trumper-shaped, white to pink in color, and are about 1 inch long. Field bindweed seeds can remain viable in the soil for up to 40 years.

Field bindweed emerges from its root system in the spring. Flowering occurs from June to September and until the first fall frost. The number of seeds produced per plant ranges from 25 to 300 and seed production is variable depending on environmental conditions. Field bindweed is an extremely difficult noxious weed to control because, in part, of its taproot that may go 20 feet deep into the soil, and which repeatedly gives rise to numerous long rhizomes.

Field bindweed is a problem throughout Colorado. It is one of the most competitive perennial weeds. It is widespread in cultivated areas, pastures, lawns, gardens, roadsides, and waste areas from 4,000 to 8,000 feet in elevation.

To successfully manage field bindweed, containment and persistence in controlling existing stands are necessary in order to exhaust the root system and deplete the soil seed bank. This weed needs to be continually stressed, forcing it to exhaust root nutrient stores and eventually die. Of all control methods, prevention is most important. Maintain healthy pastures and rangeland and continually monitor your property for new infestations. A healthy cover of desirable perennial plants will assist in discouraging field bindweed establishment.

Field bindweed 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.

On the back of this sheet are field bindweed management recommendations. For more information, visit [www.ag.state.co.us/csd/csdhome.html](http://www.ag.state.co.us/csd/csdhome.html). Or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.

#### Key ID Points

1. Leaves are shaped like arrowheads.
2. Flowers are funnel-shaped, white to pink, and have two small bracts one inch below the flower base.
CULTURAL
Establishment of selected grasses can be an effective cultural control of field bindweed. Contact your local Natural Resources Conservation Service for seed mix recommendations. Maintain healthy pastures and prevent bare spots caused by overgrazing. Bareground is prime habitat for weed invasions.

BIOLOGICAL
The bindweed gall mite, *Aceria mahlerbae*, has proven to be effective in reducing field bindweed infestations. This is an option for large infestations. To obtain a mite release, contact the Colorado Department of Agriculture, 970-464-7916.

MECHANICAL
Cutting, mowing, or pulling has a negligible effect unless the plants are cut below the surface in the early seedling stage. Well-established populations have a large seed bank in the soil that can remain viable for over 40 years.

HERBICIDES: The following are recommendations for herbicides that can be applied to range and pasture lands. Rates are approximate and based on equipment with an output of 30 gallons per 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>Clarity + 2,4-D Amine</td>
<td>1 qt./acre or 1 oz/gal water</td>
<td>Just after full-bloom and/or fall. DO NOT apply near or under trees/shrubs or where soils have rapid permeability. DO NOT apply when outside temperatures will exceed 85 degrees. Add non-ionic surfactant @ 0.32oz/gal water or 1 qt/100 gal water.</td>
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<tr>
<td>Tordon 22K<em>this is a Restricted Use Pesticide</em></td>
<td>1 qt./acre or 1 oz/gal water</td>
<td>Just after full-bloom and/or fall. DO NOT apply near or under trees/shrubs or where soils have rapid permeability. Add non-ionic surfactant @ 0.32oz/gal water or 1 qt/100 gal water.</td>
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<tr>
<td>Roundup Ultra<em>non-selective herbicide, will kill all vegetation</em></td>
<td>4 - 5 qts./acre or 4 - 5 oz/gal water</td>
<td>Apply at full-bloom and/or fall. Add non-ionic surfactant @ 0.32oz/gal water or 1 qt/100 gal water. Use caution when applying near grasses or other desirable vegetation.</td>
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