

#### **Brendon Panke and Mark Renz**

Invasive plants can thrive and aggressively spread beyond their natural range, disrupting ecosystems. The Management of Invasive Plants in Wisconsin series explains how to identify invasive plants and provides common management options. Management methods recommend specific timings for treatment, as well as expected effectiveness. For more information, go to: fyi.uwex.edu/weedsci/category/invasive-plants-of-wisconsin.





## Wild chervil

## (Anthriscus sylvestris)

ild chervil is an herbaceous plant that establishes as a rosette with fern-like leaves persisting for at least one year. Plants flower in subsequent years (typically second year), but after plants flower, they die (monocarpic perennial). Mature plants typically have a 1–5' tall stem that is branched, hollow, grooved, and hairy with a fringe of hairs around lower nodes.

## Legal classification in Wisconsin:

Prohibited/Restricted

Leaves: Stem leaves are pinnately compound, alternate, fern-like, triangular, and usually hairy on the underside, especially along the veins. Total leaf grows up to 1'long, while each leaf segment is 0.5–2"long. Leaflets are 2–3, pinnately divided, and clasp the stem. Petioles are grooved on upper surface. Rosette leaves are similar to stem leaves.

Flowers: Late spring to early summer.

Creamy white flowers with five notched petals found in flat-topped umbels,

8-24" across. Each flower is 0.1-0.2" in diameter

**Fruits and seeds:** Narrow fruit are somewhat wider near the base, smooth, and 0.2" long. Fruits are initially green, turning brown as they mature.

**Roots:** Taproot up to 6' long. Also reproduces from buds at the top of the root. After parent plant flowers and completes life cycle, these side buds often become independent plants.

Similar species: Wild chervil is often confused with other species in the parsley family (Apiaceae). A key characteristic to distinguish wild chervil from other plants in this family is the presence of small tooth-like hairs at the top of the flowering stems. Three members of the parsley family that are confused with wild chervil are wild carrot (Daucus carota), sweet cicely (Osmorhiza sp.), and the hedgeparsleys (Torilis sp.). These plants can be distinguished from wild chervil as they bloom from late spring to early summer, compared to spring. In addition, wild carrot has large curved bracts under each umbel, sweet cicely has leaves that are fragrant when crushed, and hedgeparsley fruit are covered in bristles.

#### **Ecological threat:**

Invades forest edges, fields, pastures, fencerows, roadsides, and disturbed areas.



# Non-chemical control Removal

Effectiveness in season: 70–90% Season after treatment: 50–70%

Pulling and cutting can be effective individual plant control techniques. Pull if soil conditions allow for the removal of the taproot. However, the deep taproot makes pulling difficult unless the plants are very young. If flowers are present, bag material and dispose of it in a landfill to avoid potential for seed spread. Alternately, cut the entire taproot with a sharp shovel or spade 1–2" below the surface. Any of these management techniques will need to be employed for at least four years for suppression.

## **Cultivation**

Effectiveness in season: 70–90% Season after treatment: 50–70%

Shallow cultivation (to break up root collar), coupled with reseeding of grasses, provides suppression of wild chervil populations and is especially effective when applied one week after herbicide treatments. This management technique will need to be employed for at least four years for suppression.

## Mowing

Effectiveness in season: 50–70% Season after treatment: < 50%

Mow at least three times a year after the flowering stem reaches maximum height, but before the plant flowers. Repeated mowing is critical as one mowing can increase seed production from resprouting plants. Care must be taken not to mow when mature seeds are present since this will spread the seed. At least four years of mowing will be necessary for suppression.

## **Prescribed burning**

Effectiveness in season: 50–70% Season after treatment: < 50%

Spring burns can kill germinating seedlings and suppress above-ground growth of established plants, depending on fire intensity. After the fire, established plants will quickly resprout and reinvade areas; this management method is not recommended unless integrated with other techniques. A handheld propane torch can be effective for treating seedlings.

## **Grazing**

Effectiveness in season: < 50% Season after treatment: < 50%

Grazing and trampling by cattle can suppress populations, especially when grazed in the spring. Wild chervil does not invade sites actively grazed by sheep, but is not suppressed by sheep grazing once established. Intensive grazing will need to be maintained for at least four years for suppression.

## **Cultural**

Effectiveness in season: 70–90% Season after treatment: < 50%

Maintain a mulch depth of 3" or more throughout the growing season. Organic or synthetic mulches can be used. This will suppress current populations, but will have variable success, depending on the number of seeds in the soil.



# Chemical control Foliar

Apply directly to individual plants or broadcast across an infested area. Broadcasted foliar applications are typically the most cost-effective treatment in dense infestations. Use lower rates on smaller plants and less dense populations and higher rates on larger plants and denser populations. All of these treatments are more effective when followed one week after application by shallow cultivation (to break root collar) and reseeding with competitive grasses.

## aminocyclopyrachlor + metsulfuron\*

Effectiveness in season: 90–100% Season after treatment: 70–90%

Common name: Streamline

Rate:

**broadcast:** 4.75–7.6 oz/A (aminocyclopyrachlor: 1.9–3.0 oz a.i./A + metsulfuron: 0.6–1.0 oz a.i./A) **spot:** 0.2–0.4 oz/gal (aminocyclopyrachlor: 0.08–0.16 oz a.i./gal + metsulfuron: 0.03–0.05 oz a.i./gal)

**Timing:** Apply any time the plant is actively growing and fully leafed out.

Caution: Do not apply directly to water or to areas where surface water is present. Avoid using Streamline in areas where soils are permeable, particularly where the water table is shallow, since groundwater contamination may result. Streamline remains in the soil for months, depending on application rate, and has the potential to contaminate surface runoff water, especially on poorly draining soils or areas with shallow groundwater. Maintenance of a vegetative buffer strip is recommended between the areas Streamline is applied and surface water features. Overspray or drift to desirable plants should be avoided since even minute quantities of the spray may cause severe injury to plants. Do not compost treated plants since herbicide can persist through composting process.

### chlorsulfuron\*

Effectiveness in season: 70–90% Season after treatment: 70–90%

Common name: Telar

Rate:

**broadcast:** 0.25–0.5 oz/A (0.2–0.4 oz a.i./A)

**spot:** 0.04 oz/gal (0.03 oz a.i./gal)

**Timing:** Apply any time the plant is actively growing and fully leafed out.

Caution: Do not apply directly to water or to areas where surface water is present. Can remain in the soil for months, depending on application rate. Overspray or drift to desirable plants should be avoided since even minute quantities of the spray may cause severe injury to plants.

#### clopyralid\*

Effectiveness in season: 70–90% Season after treatment: 50–70%

Common name: Transline

Rate:

**broadcast:** 10–16 fl oz/A (0.25–0.4 lb a.e./A)

**spot:** 0.2–0.4% (0.005–0.01 lb a.e./gal)

**Timing:** Apply during early flowering stage or to rosettes as long as leaves are green.

Caution: Do not apply directly to water or to areas where surface water is present. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Remains in soil for up to one year, depending on application rate. Overspray or drift to desirable plants should be avoided since even minute quantities of the spray may cause severe injury to plants. Do not compost treated plants since herbicide can persist through composting process.

#### dicamba\*

Effectiveness in season: 70–90%
Season after treatment: 50–70%

Common name: Banvel

Rate:

**broadcast:** 32–64 fl oz/A (1.0–2.0 lb a.e./A)

**spot:** Equivalent to broadcast rates.

**Timing:** Apply during early flowering stage or to rosettes as long as leaves are green. Most effective when applied to rosettes in the spring or fall.

**Remarks:** If applying after rosette stage, mow plants and spray regrowth and flowers.

Caution: Do not apply directly to water or to areas where surface water is present. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Overspray or drift to desirable plants should be avoided since even minute quantities of the spray may cause severe injury to plants. Rates > 16oz/A (0.5 lb a.e./A) may cause stunting and discoloration of sensitive grasses, such as smooth brome.

#### glyphosate\*

Effectiveness in season: 70–90% Season after treatment: 50–70%

Common name: Roundup

Rate:

**broadcast:** 2.25–3.75 lb a.e./A **spot:** For a 3 lb a.e./gal product. 1.0–2.0% (0.03–0.06 lb a.e./gal)

**Timing:** Apply any time the plant is actively growing and fully leafed out. Especially effective during early flowering stage.

Caution: Use product labeled for aquatic use if potential exists for solution to contact surface waters. Applications can result in bare ground since glyphosate is not selective. Overspray or drift to desirable plants should be avoided since even minute quantities of the spray may cause severe injury to plants.

### imazapyr\*

Effectiveness in season: 90–100% Season after treatment: 70–90%

Common name: Arsenal

Rate:

**broadcast:** 48–64 fl oz/A (0.75–1.0 lb a.e./A)

**spot:** 0.5–2% (0.01–0.04 lb a.e./gal)

**Timing:** Apply any time the plant is actively growing.

Caution: Use product labeled for aquatic use if potential exists for solution to contact surface waters. Applications can result in bare ground since imazapyr is not selective and can remain in the soil for several months to more than a year, depending on application rate. Overspray or drift to desirable plants should be avoided since even minute quantities of the spray may cause severe injury to plants.

#### metsulfuron\*

Effectiveness in season: 90–100% Season after treatment: 70–90%

Common name: Escort

Rate:

**broadcast:** 0.3–1.0 oz/A (0.2–0.6 oz a.i./A

**spot:** 0.04 oz/gal (0.03 oz a.i./gal)

**Timing:** Apply any time the plant is actively growing and fully leafed out.

Caution: Do not apply directly to water or to areas where surface water is present. Remains in the soil for months, depending on application rate.

Overspray or drift to desirable plants should be avoided since even minute quantities of the spray may cause severe injury to plants.



<sup>\*</sup>Active ingredient (a.i.)



Herbicide information is based on label rates and reports by researchers and land managers. Products known to provide effective control or in common use are included. Those that do not provide sufficient control or lack information for effectiveness on target species have been omitted.

References to pesticide products in this publication are for your convenience and not an endorsement of one product instead of a similar product. You are responsible for using pesticides in accordance with the label directions. Read the label before any application.





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