



### **BLACK SWALLOW-WORT** (Cyanchum Iouiseae)

Herbaceous perennial vine in the milkweed family. Leaves are dark green, glossy, and have smooth edges. The flowers are 1/8 inch, dark purple, and in clusters. Fruit forms in a milkweed-like pod that opens to release seeds on a silky filament.

**Impacts:** Forms dense thickets of vines, smothering other plants. Monarchs can confuse it for native milkweeds and caterpillars will not survive on black swallow-wort.

Management: Foliar herbicide or manually digging small infestations.





### **BROWN KNAPWEED** (Centaurea jacea)

Herbaceous perennial forb. Leaves are lance-shaped and hairy. Flowers are pink to purple on the ends of branches. Seeds are light brown with short plumes.

**Impacts:** Forms large monocultures that outcompete other species. It reduces forage quality and has a large taproot making management a challenge.

Management: Clean equipment to prevent movement of seeds. Manually dig small infestations. Foliar herbicide can be effective.



# **COMMON TEASEL** (Dipsacus fullonum)

Herbaceous perennial forb. Leaves are triangular-shaped with spines on top and bottom and up to 12 inches long. Flowers are pink or purple, very bristly, with long bracts that curve up from the bottom of the flower. It produces a large number of seeds that are spread by mowing or in moving water.

**Impacts:** Forms dense stands that outcompete other species. Reduces forage and species diversity.

Management: Mow before flowering. Manually dig or sever the taproot and cut seedheads. Foliar herbicide can be effective.



# **CUTLEAF TEASEL** (Dipsacus laciniatus)

Herbaceous perennial forb. Leaves are large, deeply lobed with spines on top and bottom. Flowers form clusters and are white with stiff bracts. It produces a large number of seeds that are spread by mowing or in moving water.

**Impacts:** Forms dense stands that outcompete other species. Reduces forage and species diversity.

Management: Mow before flowering. Manually dig or sever the taproot and cut seedheads. Foliar herbicide can be effective.





### **DALMATIAN TOADFLAX** (Linaria dalmatica)

Herbaceous perennial forb. Leaves are heart-shaped, 1-3 inches long, and clasp the stem. Stems are waxy and thick. Flowers are large, yellow spikes with a spur at the base of the flower. Seed pods contain hundreds of black seeds with wings and can stay viable for 10 years.

**Impacts:** Forms large monocultures and outcompetes other species. Reduces livestock forage and wildlife habitat.

**Management:** Do not mow or till. Manually dig for small populations. Foliar herbicide treatments can be effective.





# **DIFFUSE KNAPWEED** (Centaurea diffusa)

Herbaceous biennial or short-lived perennial forb. Leaves have long narrow lobes and are covered in short dense hairs, giving it a gray tint. Flowers are usually white, sometimes pale pink or purple, borne on ends of branches. Seeds are very small, dark brown and spread by wind and water.

**Impacts:** Alters soil chemistry, has deep taproot, increases soil erosion, suppresses vegetation, and reduces species diversity.

**Management:** Small infestations can be manually dug. Always clean equipment. Foliar herbicides can be effective.







## **GIANT HOGWEED** (Heracleum mantegazzianum)

Herbaceous perennial forb. Leaves are deeply cut up to 5 feet across. Stems and leaves are covered in coarse white hairs. Purple mottling on stems. Flowering stalk is 10-15 feet tall with large clusters of tiny white flowers 2.5 feet across. Spreads by seed; seed can be viable for 10 years.

Impacts: Poses serious health hazard. Contact with sap in the presence of sunlight can produce painful, burning blisters. Displaces native riparian plants and causes erosion.

Management: Foliar herbicide treatments over multiple years are recommended.





## GRECIAN FOXGLOVE (Digitalis Ianata)

Herbaceous perennial forb. Long narrow leaves and stems covered in woolly hairs. Showy flowers in an elongated cluster. Creamy white to pale yellow. Prolific seed producer, seeds can be viable for at least 5 years.

**Impacts:** Toxic to humans, livestock, and wildlife. Displaces forage and native plants.

Management: Frequent mowing before flowering may reduce populations. Foliar herbicide treatments recommended over multiple years.





#### JAPANESE HONEYSUCKLE

(Lonicera japonica)

Woody perennial vine. Oval-shaped leaves and up to 3 inches long. Stems are hairy and reddish. Flowers are white to yellow and tubular-shaped, very fragrant. Fruits are spherical and black when mature, each fruit contains 2-5 seeds; dispersed by birds.

**Impacts:** Rapid growth, capable of engulfing other vegetation. Displaces native vegetation.

**Management:** Hand pulling for small populations. Foliar herbicide treatments recommended.



### **JAPANESE HOPS** (Humulus japonicus)

Annual herbaceous vine. Leaves have 5-7 palmate lobes with toothed edges. Stems and leaves have hooked hairs. Flowers on separate male and female plants. Greenish flowers and are either cone-shaped clusters or on short spikes. Seeds are small and float on water in papery husks.

**Impacts:** Grows rapidly and overtakes other plants, forming dense patches. Prefers sunny riparian

areas and can spread to cover large

areas quickly.

Management: Hand pulling for small populations. Repeated cutting or mowing before seed set. Foliar herbicide treatments are also recommended.





## JOHNSONGRASS (Sorghum halepense)

Perennial grass. Leaves are 2 feet long and have distinctive white midrib. Flowers are loose, spreading, purplish panicle. Seeds are small and enclosed in spikelets.

Impacts: Spreads aggressively and forms dense colonies

which displaces native vegetation. Causes millions of dollars in losses annually of agricultural revenue.

**Management:** Fall tillage to expose and dry out rhizomes can be effective.

Not in Minnesota at this time



# PALE SWALLOW-WORT (Cyanchum rossicum)

Herbaceous perennial vine in the milkweed family. Leaves are oval-shaped with pointed tip, shiny, and medium green. Flowers are pale pink to reddish brown, small, star-shaped, clusters of 6-10. Flat brown wind dispersed seeds are contained in milkweed-like pods and covered in white hairs.

**Impacts:** Forms dense patches that suppress other vegetation. Tangled vines form impenetrable thickets.

**Management:** Small populations can be dug, or hand pulled. Foliar herbicide treatments can be effective.







### PALMER AMARANTH (Amaranthus palmeri)

Herbaceous annual. Leaves are oval to diamond-shaped with very long petiole; sometimes has a white v-shaped mark. Flowers are tiny and green, borne on long clusters of spikes. Produces enormous amounts of small, black, spherical seed. Seedheads can be 3 feet long and prickly.

**Impacts:** Competes aggressively with crops. Very fast growth rate of 2-3 inches per day.

Causes crop yield losses up to 91% in corn and 79% in soybean.

Management: Hand pull single plants. Preemergent and foliar herbicides may be effective in not herbicide resistant.





### RED HAILSTONE (Thladiantha dubia)

Herbaceous perennial vine. Heart-shaped leaves with light green color. Vines have tendrils to climb. Forms distinctive underground tubers. Tube-shaped yellow flowers. Fruit matures to orange-red, 2 inches long with brown seeds.

**Impacts:** Grows rapidly and can climb 20 feet up into trees. Smothers other vegetation.

Management: Difficult to control because of underground tubers. Hand pulling small infestation can be effective. Herbicide recommendations are in development.



For specific herbicide recommendations, contact your local University of Minnesota Extension agent, co-op, or certified landscape care expert. There are several businesses throughout the state with certified herbicide applicators that can be hired to perform chemical applications.

For all management methods, it is important to monitor for several years after treatment to check for seedlings and possible regrowth.

### TREE OF HEAVEN (Ailanthus altissima)

Woody perennial tree. Leaves are compound leaflets and 1-4 feet long. Flowers are small, yellowish-green, large clusters at ends of leaves. Fruit are flat, twisted wings that hang in long clusters and are wind dispersed.

**Impacts:** Primary host for spotted lanternfly and overtakes other vegetation.

Management: Hand pull or dig seedlings. Foliar, cut-stump, or basal bark herbicide treatments are effective.





## YELLOW STARSTHISTLE

(Centaurea solstitalis)

Herbaceous annual forb. Leaves are narrow, sometimes lobed, 1-3 inches long. Yellow flowers with a ring of spines just below the flowers. Seeds have fluffy hair that aid in movement on wind and animals.

**Impacts:** Forms dense monocultures. Decreases soil moisture, forage, and species diversity. Toxic to horses.

**Management:** Hand pull small populations. Foliar herbicide treatments can be effective.





Positive Report

In accordance with the Americans with Disabilities Act, this information is available in alternative forms of communication upon request by calling 651-201-6000. TTY users can call the Minnesota Relay Service at 711. The MDA is an equal opportunity employer and provider.

