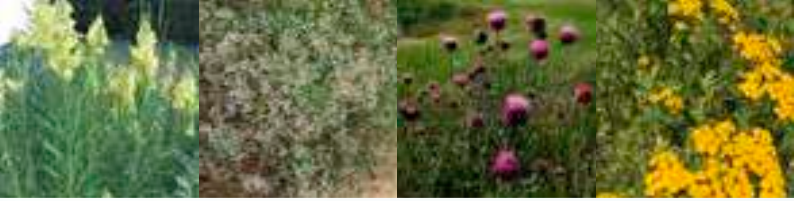

Saskatchewan

Invasive Plant Species Identification Guide

Second Edition

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Saskatchewan

Invasive Plant Species Identification Guide

2018 Introduction

The inspiration to develop a province-wide guide to invasive species was originally provided by The Frenchman Wood River Weed Management Area (Julie McKenzie), Grasslands National Park, and other collaborators with the publication of Invasive Plant Species Guide for Southern Saskachewan. This guide to invasive weeds in the southern region of Saskatchewan was subsequently revised and expanded to create the first edition of Saskatchewan Invasive Plant Species Identification Guide with the support of the Saskatchewan Forage Council and its partners. This guide is to be used as a tool to help identify invasive plant species in Saskatchewan. An invasive plant species is a non-native plant that, because of its growth and reproductive characteristics, can adapt to one or more habitats very quickly and proliferate, expanding in range. An invasive plant species has a negative economic, ecological, and/or aesthetic effect. The Invasive Plant Species Identification Guide for Saskatchewan has been designed for agricultural producers, land managers, and visitors to Saskatchewan. Producers and land managers play an important role in invasive species management as they are on the ground everyday, acutely aware of changes on the landscape. Visitors to the area often have a keen eye for the vegetation they are seeing. Visitors need to be aware of the threat invasive species pose so that these plants are not brought into, spread around or transported out of the area.

Invasive species are a growing threat to the integrity of native prairie. Native prairie is home to many important and/or rare plants and animals.

The plants that make up native prairie work together to store carbon, maintain water and nutrient cycling, and build soil. Invasive species can upset this balance. Invasive species have been identified as the second largest threat to biodiversity (after fragmentation).

The invasion of non-native species in haylands, tame forage, gravel pits, riparian areas, roadsides and cropland affect the function of these habitats and can cause a downgrade in their usefulness. All of the species included in this guide are a threat to Saskatchewan.

Prevention of invasive species is the most cost effective and environmentally responsible management tool. Do not transport hay, soil, or plants from an area with known infestations to an uninfested area. Do not seed contaminated seed. Many invasive species require some disturbed soil to establish. Keeping permanent cover in a healthy range condition minimizes the amount of habitat an invasive species can colonize. Control new infestations in cultivated fields when they are first noticed. Wash or check clothing, pets, horses, livestock, equipment and vehicles for plant parts or seeds before coming into or leaving a new area.

Early identification increases the chances of eradication. Take the time to identify that plant that looks out of place, you've never seen before, or has suspiciously shown up. It could save you or your neighbours time and money in the long run!

Some of the invasive plants in this guide have not yet been identified in Saskatchewan, or have only been noted in very isolated populations. They have been included in this guide so that if they are found, rapid identification and control measures can take place prior to an invasion. If you identify one of these invasive plants contact the Provincial Weed Control Specialist at **306-787-4673**.

If you identify an invasive plant species consult with your local Rural Municipality, your local Weed Management Area, a Professional Agrologist, or the Saskatchewan Ministry of Agriculture - Agriculture Knowledge Centre at **1-866-457-2377**.

Rosette

Rosette in seedling year

Multi-stemmed

Shrub or tree

Highly branched

Branched

Slightly branched

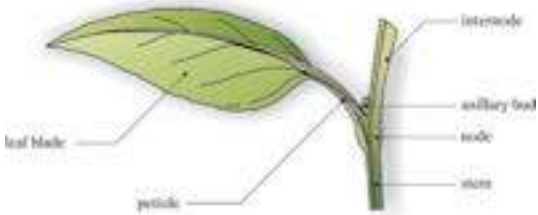
Not branched

Low and spreading

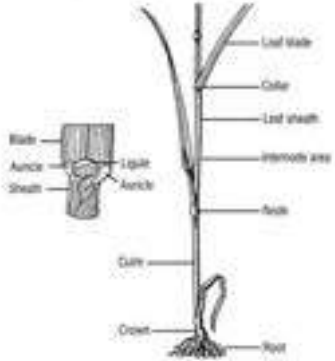
Narrow with drooping seed head

The shape of a plant can be used as a distinguishing characteristic—setting it apart from other plants. Some plants can have more than one shape depending on their life cycle, habitat, or the climate.

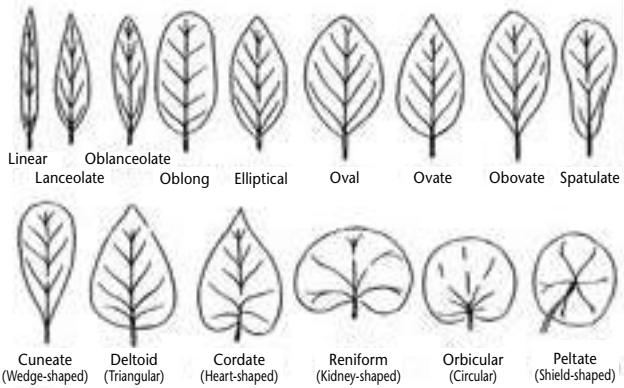
Leaf Parts



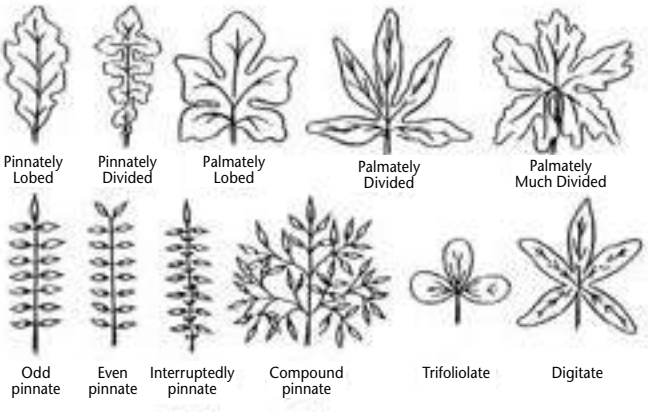
Grass Plant Parts



Shapes of Simple Leaves



Types of Divided Leaves



Plant Species Listing

In Saskatchewan, plant species are designated as prohibited, noxious or nuisance in the *Weed Control Act*.

It is required that prohibited weeds be eradicated and prevented from further spread. Isolated noxious weed infestations shall be eradicated and established noxious infestations shall be contained and controlled.

Prohibited and noxious weeds pose a threat of invasion, rapid spread and difficulty in control. The designation of species is identified on each page with these symbols.

P — Prohibited

N — Noxious

Management Methods

There are many methods that can be used to manage invasive plant species. Integrated management involves utilizing multiple methods to improve effectiveness.

Biological control is using the invasive plant's natural enemies. These may include insects, bacteria or fungal parasites.

Chemical control is applying the appropriate herbicide to the invasive plant. Always follow label directions and consult the current Guide to Crop Protection.

Targeted grazing is the grazing of livestock to accomplish specific management objectives.

Physical control is using a manual or mechanical operation to remove the problem weed.

The appropriate integrated controls will vary depending on the physical characteristics of the weed species. The control methods of each species is identified on each page with these symbols.

 Biological

 Chemical

 Targeted Grazing

 Physical

N

Downy Brome – *Bromus tectorum*

Also Known As: cheatgrass, thatch bromegrass, early chess, downy chess

General Description: hairy, purplish tinged winter or summer annual grass with fibrous roots; often growing in dense patches; seed spikelets droop to one side

Leaves: 0.75 to 6 inches (1.9 to 15.2 cm) long, green; soft hairs on the top and bottom of leaf; lacks auricles, but has a jagged 0.04 to 0.12 inch (0.1 to 0.3 mm) long hairless ligule

Stems: slender, upright, hairy; leaf sheath has long hairs; often purplish tinged

Height: 3 to 24 inches (7.6 to 61 cm) tall

Flower: drooping, spreading spikelets (of 4 or more seeds) on slender twisting branches; droops to one side; rough 0.38 to 0.75 inch (1.0 to 1.9 cm) long straight to slightly bent awns; purplish tinged

Habitat: tame forage, native prairie, yard sites, cropland, waste areas and roadsides

Time of Flowering: heads out in May through June with seed set shortly thereafter

Key Distinguishing Characteristic(s): similar to Japanese brome (*Bromus japonicus*), distinguishable by smaller seeds, lack of silky hairs on the ligule, straight to slightly bent awns and a more spreading appearance of the drooping seed heads

Impact: displaces native vegetation, reduces crop yields and increases risks of wildfire; awns can cause injury to grazing livestock

Plant Shape	Management
	

N

Japanese Brome - *Bromus japonicus*

Also Known As: Japanese chess, field brome

General Description: hairy, purplish tinged, winter or summer annual grass with fibrous roots; often growing in dense patches; drooping, compact, flattened seed spikelets

Leaves: 1.5 to 6 inches (3.8 to 15.2 cm) long, green; soft hairs on the top and bottom of leaf; lacks auricles, but has a jagged 0.02 to 0.08 inches (0.05 to 0.2 cm) long hairy ligule

Stems: slender, upright, hairy; leaf sheath has long hairs

Height: 3 to 27 inches (7.6 to 69 cm) tall

Flower: slightly drooping spikelets (of 4 or more seeds) on slender twisting branches; rough 0.38 to 0.75 inch (1.0 to 1.9 cm) long sharply bent and/or twisted awns; purplish tinged

Habitat: tame forage, native prairie, yard sites, cropland, waste areas and roadsides

Time of Flowering: heads out in May through June with seed set shortly thereafter

Key Distinguishing Characteristic(s): similar to downy brome (*Bromus tectorum*) – distinguishable by silky hairs on the ligule, compact appearance of slightly drooped seed heads, and sharply bent and/or twisted awns

Impact: displaces native vegetation, reduces crop yields and increases risks of wildfire; awns can cause injury to grazing livestock

Plant Shape	Management
	

N

Absinthe Wormwood – *Artemisia absinthium*

Also Known As: absinthe, wormwood, wormwood sage

General Description: greenish-grey, multi-stemmed perennial with tap root growth; top growth dies back yearly

Leaves: 1 to 3 inches (2.5 to 7.6 cm) long, greenish-grey, silky haired; divided into deep segments or lobes; on long stalks near base—shorter higher up the stem; alternate on the stem

Stems: woolly, grooved, greenish-grey; many stems come from basal rosette

Height: up to 60 inches (152 cm) tall

Flower: small yellowish tubular flowers in clusters; flower clusters 0.08 to 0.12 inches (0.2 to 0.3 cm) in diameter; inconspicuous and plentiful

Habitat: tame forage, waste areas, yard sites, cropland, roadsides and gravel pits

Time of Flowering: late July through September

Key Distinguishing Characteristic(s): strong sage-like odour; divided and silky haired leaves on stems from a rosette

Impact: competes with other vegetation; taints hay (not palatable to livestock)

Plant Shape	Management
	

N

Wild Parsnip – *Pastinaca sativa*

Also Known As: poison parsnip

General Description: biennial or short-lived perennial with a thick white to pale yellow taproot; flat-topped umbel flowering structure

Leaves: first year leaves are a compact rosette close to the ground; second year leaves up to 16 inches (40 cm) in length; alternate, compound with 15 leaflets; margins severely toothed or lobed.

Stems: round and grooved; lightly hairy; branched at upper nodes

Height: erect; up to 60 inches (152 cm) tall

Flower: small yellow flowers form flat-topped umbels at the top of the stem

Habitat: tame forage, sunny open areas, waste areas, roadsides

Time of Flowering: May through September

Key Distinguishing Characteristic(s): yellow umbel flowers; sharply toothed leaves

Impact: competes with other vegetation; sap contains chemical that can cause skin burns, blisters or rashes after exposure to sunlight

Plant Shape	Management
	

N

Common Tansy – *Tanacetum vulgare*

Also Known As: garden tansy, yellow buttons

General Description: aromatic, perennial with tap and creeping root system; rhizome root growth; distinct flat-topped, yellow button-like flowers

Leaves: 4 to 8 inch (10.2 to 20.3 cm) long, green, almost fern-like; on short stalks, with jagged, deeply lobed segments; strong smelling; alternate on the stem

Stems: slightly branched, often purplish-red, dotted with small glands; many branches grow from the same rootstock

Height: 18 to 36 inches (46 to 91 cm) tall

Flower: yellow, daisy-like without petals; grouped on the tops of the plants

Habitat: riparian areas, tame forage, native prairie, roadsides, waste areas and gravel pits

Time of Flowering: July through September

Key Distinguishing Characteristic(s): Button-like flowers (daisy without petals) and sharply toothed leaves

Impact: chokes out other vegetation; although generally avoided by livestock, if consumed, it can have toxic effects ranging from none to abortions and in very rare cases death

Plant Shape	Management
	

P

Dalmatian Toadflax – *Linaria dalmatica*

Also Known As: butter and eggs, wild snapdragon, *Linaria genistifolia* spp. *dalmatica*

General Description: perennial with tap root and creeping root system; snapdragon-like flower heads; produces clear to slightly milky juice when leaves or stems are broken

Leaves: 0.75 to 2.4 inches (1.9 to 6.0 cm) long, waxy green, hairless; heart-shaped and clasping the stem; alternate on the stem

Stems: slightly branched with woody base and thick waxy coating

Height: 15 to 48 inches (38 to 122 cm) tall

Flower: light yellow; snapdragon-like with prominent spur at the flower base; located along the upper portion of the stems in a spike like cluster

Habitat: tame forage, native prairie, cropland, yard sites, roadsides and gravel pits

Time of Flowering: late June through August, possibly into September

Key Distinguishing Characteristic(s): broad, heart-shaped leaves which clasp the stem; snapdragon-like yellow flowers; grows in diffuse patches

Impact: chokes out other vegetation; can hybridize with yellow toadflax

Plant Shape	Management
	

N

Yellow Toadflax – *Linaria vulgaris*

Also Known As: butter and eggs, Jacob's ladder, wild snapdragon

General Description: perennial with tap root and creeping root systems; snapdragon-like flower heads; produces clear to slightly milky juice when leaves or stems are broken

Leaves: 0.75 to 4 inches (1.9 to 10.2 cm) long; pale to silvery-green (waxy), hairless; long and lance-shaped on short leaf stems; alternate, but can appear almost opposite when crowded on the stem

Stems: hairless and woody red at base; slightly hairy and green near top

Height: 4 to 36 inches (10.2 to 91 cm) tall

Flower: light yellow with orange centers; snapdragon-like with prominent spur at the flower base; in spike-like clusters along the upper portion of the stems

Habitat: tame forage, native prairie, cropland, yard sites, roadsides and gravel pits

Time of Flowering: late June through August, possibly into September

Key Distinguishing Characteristic(s): long, narrow, alternate leaves on short leaf stems; snapdragon-like flowers; grows in dense patches

Impact: chokes out other vegetation and is slightly toxic to livestock; can hybridize with dalmatian toadflax

Plant Shape	Management
	



N

Leafy Spurge – *Euphorbia esula*

Also Known As: spurge

General Description: perennial with tap root and creeping root system; single stem plant grown in a cluster; distinct yellowish-green bracts emerge in June on plant tops

Leaves: 0.25 to 1.5 inches (0.6 to 3.8 cm) long, green, hairless; long and lance-shaped; alternate on the stem

Stems: hairless, pale green to blue-green

Height: 6 to 36 inches (15 to 91 cm) tall

Flower: inconspicuous, yellowish-green; small, less than 0.12 inches (0.3 cm) wide, lacks petals; flowers sit within clustered, showy yellowish-green bracts on plant tops

Habitat: riparian areas, tame forage, native prairie, coulees, cropland, roadsides, yard sites, waste areas and gravel pits

Time of Flowering: bracts appear in early June; true flowers appear end of June and continue to flower into the fall

Key Distinguishing Characteristic(s): milky latex sap is produced when stems or leaves are broken

Impact: chokes out other vegetation; can be toxic to cattle and horses

Plant Shape	Management
	



P Yellow Star Thistle – *Centaurea solstitialis*

Also Known As: Barnaby's thistle, yellow cockspur

General Description: winter annual with deep tap root; yellow flower head surrounded by a star of long sharp thorns

Leaves: basal leaves generally 2 to 3 inches (5.0 to 7.6 cm) long and deeply lobed; long and narrow shaped upper leaves attach to wings running down the sides of stem

Stems: stiff, upright stems are covered in fine woolly silvery hair; grey-green to bluish-green

Height: 2 to 72 inches (5 to 183 cm) tall, with an average of 12 to 36 inches (30 to 61 cm) tall

Flower: yellow, tubular; flower heads sit on stem tips within bracts with sharp 0.25 to 2.0 inch (0.64 to 5.0 cm) long golden-coloured thorns arranged around the flower head in a star shape

Habitat: tame forage, native prairie, cropland, waste areas, roadsides and gravel pits

Time of Flowering: late June through August

Key Distinguishing Characteristic(s): star shape arrangement of sharp golden-coloured thorns on flower bracts

Impact: chokes out desired vegetation; high water consumer; thorns can injure livestock and wildlife; fatally toxic to horses if consumed

Plant Shape	Management
	

N

Canada Thistle – *Cirsium arvense*

Also Known As: California thistle, field thistle, creeping thistle

General Description: perennial thistle with tap root and extensive creeping root system; grows in patches which can spread quickly; plants are either male or female

Leaves: numerous, light to dark green, hairless to cobwebby undersides; long with irregular shaped spine-toothed lobes; alternate on the stem

Stems: slightly prickly, wingless; light to dark green

Height: up to 48 inches (122 cm) tall

Flower: rose-purple to pink-white, tubular; flower heads numerous, up to 0.75 inches (1.9 cm) wide; male (globe-shaped) and female (flask-shaped) flower heads on separate plants; sits within almost spineless bracts on the ends of branches

Habitat: riparian areas, tame forage, native prairie, fence rows, waste areas, yard sites, cropland, roadsides and gravel pits

Time of Flowering: throughout summer

Key Distinguishing Characteristic(s): small flower heads and green, wingless but prickly stems; spines only on leaf edges; male and female flowers are found on different plants

Impact: chokes out other vegetation; new plants can grow from root segments

Plant Shape	Management
	



N

Nodding Thistle – *Carduus nutans*

Also Known As: musk thistle, plumeless thistle

General Description: biennial with long tap root; nodding flower heads on top of slightly branched plant

Leaves: up to 16 inches (41 cm) long, dark green, with deep, light green midrib and spiny toothed edges; deeply lobed in an irregular fashion; alternate on the stem

Stems: small spiny wings along the stem; very few branches; stems naked directly below the flower heads

Height: 12 to 72 inches (30 to 183 cm) tall

Flower: tubular, purple; 1 to 2.5 inch (2.5 to 6.4 cm) wide flower head; flower heads sit within spine-tipped bracts on branch tops; outer bracts bent at right angles to the flower head; flower heads often nod over

Habitat: tame forage, native prairie, roadsides, waste areas and gravel pits

Time of Flowering: July through September in the 2nd year of growth

Key Distinguishing Characteristic(s): nodding flower heads; outer bracts bent at right angles to the flower heads; naked stems directly below the flower heads

Impact: chokes out other vegetation

Plant Shape	Management
	

P

Field Scabious – *Knautia arvensis*

Also Known As: blue buttons

General Description: single-stemmed perennial with tap root growth; pale blue to purple, half-sphere shaped flower heads

Leaves: hairy, 4 to 10 inches (10.2 to 25 cm) long; rosette leaves are jaggedly toothed; stem leaves are deeply lobed and opposite on the stem

Stems: tall, slightly branched with stiff hairs covering the stem

Height: up to 60 inches (152 cm) tall

Flower: small, pale blue to purple coloured; clustered into 1 to 1.5 inch (2.5 to 3.8 cm) wide, half-sphere shaped flower heads on the ends of long leafless branches; very few flower heads per plant

Habitat: riparian areas, tame forage, waste areas, native prairie, abandoned cropland, yard sites, cropland, roadsides and gravel pits

Time of Flowering: June through early fall

Key Distinguishing Characteristic(s): tall, slightly branched with hairy leaves and stems; pale blue to purple coloured, half-sphere shaped flower heads

Impact: competes with other vegetation; not palatable to livestock and wildlife

Plant Shape	Management
	

N

Purple loosestrife – *Lythrum salicaria*

Also Known As: lythrum, purple lythrum

General Description: wetland perennial; extensive tap root and creeping root system sprouts many square-shaped stems which support loose spikes of magenta-coloured flowers

Leaves: dark green, opposite or whorled in 3's, attached directly to the stem; narrow with a rounded base and smooth leaf edges

Stems: square-shaped (sometimes 5 or 6-sided); hairless to slightly hairy; one plant can sprout more than 30 stems

Height: 18 to 78 inches (46 to 198 cm) tall

Flower: 5 – 7 reddish-purple to magenta-coloured petals surrounding a small yellow center; loosely clustered into spikes along stem tops

Habitat: riparian areas, wetlands and yard sites

Time of Flowering: July through September

Key Distinguishing Characteristic(s): square-shaped stems, magenta flowers and narrow leaves without stalks

Impact: chokes out desired wetland vegetation

Plant Shape	Management
	

N

Dames Rocket – *Hesperis matronalis*

Also Known As: common dames violet, sweet rocket, mother-of-the-evening

General Description: dark green tall biennial or perennial with rosette in seedling year; single or multi-stemmed 2nd year growth with a tap root system; belongs to the mustard family; is a prolific seed producer

Leaves: 2 to 6 inches (5 to 15 cm) long, 0.4 to 1.6 inches (1 to 4 cm) wide, dark green, hairy on top and bottom; leaves get smaller further up the stem; jagged toothed edges; oblong to oblanceolate shaped; alternate on the stem

Stems: hairy; stiff and erect with some branching at the top; sometimes there is more than one stem per plant

Height: up to 39 inches (100 cm) tall; may be taller in riparian areas

Flower: 4 petals; fragrant flowers in loose clusters (like a loose ball) at the branch ends; usually purple in color but pink and white varieties exist

Habitat: riparian areas, gardens, shorelines, abandoned cropland, wooded areas, shrub bluffs, native prairie, coulees, yard sites, and waste areas

Time of Flowering: May through June or July

Key Distinguishing Characteristic(s): fragrant 4-petal flowers in loose clusters and alternate leaves

Impact: crowds out native vegetation because of large number of seeds released; decreases riparian area health

Plant Shape	Management
	



N

Common Burdock – *Arctium minus* subsp. *minus*

Also Known As: wild rhubarb, beggar's button, elephant's ear, wild burdock, lesser burdock

General Description: tap rooted biennial; large alternate leaves

Leaves: somewhat heart shaped, similar to rhubarb leaves; deeply veined, alternate; up to 12 inches (30 cm) in length at the base, becoming smaller higher up the plant

Stems: tall, branched and hairy; stems and leaf stalks are hollow and grooved

Height: 24 to 72 inches (61 to 183 cm) tall at maturity

Flower: purple to white; disc-shaped flower heads at the ends of stems and at leaf axils along stems; 0.6 to 1.2 inches (1.5 to 3.0 cm) wide; heads surrounded by bracts with harsh, hooked spines

Habitat: riparian areas, coulees, yard sites, fencerows, waste areas and roadsides

Time of Flowering: mid-July through mid-September

Key Distinguishing Characteristic(s): tall stalky plant with very large alternate leaves (up to 12 inches or 30 cm long); large bur surrounds seeds

Impact: outcompetes vegetation; large burs impact livestock production and health

Plant Shape	Management
	

P

Salt Cedar – *Tamarix* spp.

Also Known As: tamarisk

General Description: spindly perennial shrub or tree forming a dense thicket; small white to pink flowers cover the tree

Leaves: alternate, blue-green turning golden-orange in the fall before falling off; small (0.06 inches or 0.15 cm long), scale-like, lance-shaped; resemble juniper leaves

Stems: willowy, smooth, varying greatly in color when young; mature stems grey or brownish, grooved and wrinkled in appearance

Height: 60 to 240 inches (152 to 610 cm) tall at maturity

Flower: small, light pink to white; four to five 0.04 to 0.08 inch (0.1 to 0.2 cm) long petals; flowers can number in the thousands

Habitat: riparian areas, wetlands and yard sites

Time of Flowering: spring through early fall

Key Distinguishing Characteristic(s): spindly tree with juniper-like leaves covered in small white to pink flowers

Impact: chokes out desired vegetation and concentrates salts near the soil surface to deter other species from growing; fire tolerant; high consumer of water (200 gal or 757 L/day)

Plant Shape	Management
	



P Spotted Knapweed – *Centaurea maculosa*

Also Known As: knapweed

General Description: biennial or perennial with long tap root; pink to purple-coloured flowers

Leaves: somewhat hairy; deeply lobed dividing the leaf into narrow segments; alternate, usually clasping the stem; basal leaves "cobwebby" in appearance

Stems: branched, hairy; upper stems almost straight up and down

Height: 24 to 36 inches (61 to 91 cm) tall

Flower: usually pink to purple, tubular; flower heads 0.2 to 0.3 inches (0.6 to 0.8 cm) wide, numerous; flower heads sit on tops of leaf branches in oval bracts with a black fringe

Habitat: native prairie, tame forage, roadsides and waste areas

Time of Flowering: June through October

Key Distinguishing Characteristic(s): oval-shaped, black-fringed flower head bracts; "cobwebby" basal leaves; pink to purplish flowers

Impact: chokes out other vegetation; avoided by grazing animals

Plant Shape	Management
	

N

Russian Knapweed – *Acroptilon repens*

Also Known As: *Centaurea repens,* hard heads

General Description: branched perennial with blackish, scaly, creeping roots; grows in dense patches

Leaves: narrow with irregular teeth at the base of the plant; upper leaves narrow, smooth edged with a spine at the tip; alternate, usually clasping the stem; woolly when young

Stems: highly branched; covered with soft grey hairs

Height: 24 to 36 inches (61 to 91 cm) tall

Flower: tubular flowers form a spherical flower head; flower heads 0.6 to 1.3 inches (1.5 to 3.3 cm) in diameter; sits on tops of leaf branches in entire bracts; silvery when unopened, pink to purple when open and straw-coloured when older

Habitat: cropland, native prairie, tame forage, roadsides and waste areas

Time of Flowering: July

Key Distinguishing Characteristic(s): upper leaves end in a soft spine but the rest of the plant generally lacks spines and prickles; flower head bracts are entire

Impact: chokes out other vegetation

Plant Shape	Management
	

P

Red Bartisia – *Odontites serotina*

Also Known As: late flowering eye-bright, red rattle

General Description: annual, hemiparasite; pinkish-red axillary flowers

Leaves: hairy; opposite; lance shaped; stalkless; 0.4 to 1.2 inches (1 to 3 cm) in length with 2 or 3 pairs of blunt teeth

Stems: erect; branched and hairy

Height: 4 to 16 inches (10 to 40 cm) tall

Flower: spike-like raceme; individual axillary flowers; light red/pink or purple with snapdragon appearance; 0.4 inches (1 cm) in length

Habitat: native prairie, tame forage and roadsides

Time of Flowering: June through September

Key Distinguishing Characteristic(s): pinkish-red to purple axillary flowers with snapdragon appearance, opposite hairy leaves with 2 to 3 blunt teeth

Impact: quickly overtakes forage stands causing 50–70% forage loss; unpalatable to livestock; feeds off roots of grass and forbs as it is parasitic; prolific seed producer

Management: no current known management available

Plant Shape

P

Diffuse Knapweed – *Centaurea diffusa*

Also Known As: white knapweed, spread knapweed

General Description: branched biennial or short-lived perennial with long tap root

Leaves: woolly, deeply lobed dividing the leaf into narrow segments; alternate leaves usually clasping the stem; basal leaves "cobwebby"

Stems: highly branched, hairy

Height: 24 to 36 inches (61 to 91 cm) tall

Flower: usually white to light purple, tubular; numerous; flower heads sit on stem tops in triangular, spine-tipped bracts

Habitat: native prairie, tame forage, roadsides and waste areas

Time of Flowering: July

Key Distinguishing Characteristic(s): triangular, spine-tipped flower head bracts; "cobwebby" basal leaves

Impact: chokes out other vegetation; avoided by grazing animals

Plant Shape	Management
	

N

Baby's Breath – *Gypsophila paniculata*

Also Known As: angel breath

General Description: perennial with deep thick root; sparse foliage with open branched stems and numerous tiny flowers

Leaves: 1 to 4 inches (2.5 to 10.2 cm) long, blue-green to grey-green with glandular hairs; narrow, lance shaped with a single vein running up the middle of the leaf; opposite on the stem

Stems: slender, branched, blue-green to grey-green in colour; swollen where leaves attach to stems

Height: 12 to 36 inches (30 to 91 cm) tall

Flower: 5 white to rosy-coloured petals; tiny (less than 0.4 inches or 1.0 cm wide) and numerous on small spreading flower branches; gives the plant a "puff ball" appearance

Habitat: tame forage, native prairie, roadsides, waste areas and gravel pits

Time of Flowering: June through August; flowers for the first time in its 3rd year

Key Distinguishing Characteristic(s): highly branched; flowers and flower branches give the plant a large, round, sparse, airy "puff ball" appearance

Impact: crowds out other vegetation

Plant Shape	Management
	 

N

Field Bindweed – *Convolvulus arvensis*

Also Known As: creeping Jenny, European bindweed, morning glory, perennial morning glory

General Description: perennial with tap root and creeping root system; forms an extensive mat or climbs counter-clockwise up nearby plants or objects

Leaves: dull green; arrow-head shaped, anchored by leaf stems off the main stem; numerous leaves of varied sizes on a single plant

Stems: smooth, 12 to 120 inches (30 to 305 cm) long; can wind counterclock-wise around nearby plants or objects

Height: prostrate; needs to crawl up nearby objects and plants to achieve height

Flower: pinkish to white, up to 1 inch (2.5 cm) in diameter; morning glory or bell/trumpet shaped; on long flower stems with 2 small bracts part way down each flower stem

Habitat: cropland, riparian areas, tame forage, native prairie, waste areas, roadsides and gravel pits

Time of Flowering: June through September

Key Distinguishing Characteristic(s): 2 small bracts on the flower stems; climbs counterclockwise; large showy field bindweed flowers are easily distinguishable from wild buckwheat's small, inconspicuous flowers

Impact: chokes out other vegetation; makes harvesting crops and forages difficult

Plant Shape	Management
	



N Hoary Cress or White Top – *Cardaria draba*

Also Known As: pepper grass, white weed, heart-pod hoary cress

General Description: perennial, extensive creeping root system; small white flowers clustered on plant tops

Leaves: blue-green to grey-green; covered with fine hairs; egg to arrowhead-shaped; the large, narrow basal leaves have leaf stalks while the upper leaves have two lobes clasping the stem

Stems: greyish, hairy at base to hairless at the top of plant; slightly branched

Height: up to 24 inches (61 cm) tall

Flower: four small (0.12 inch or 0.3 cm long) white petals; flowers densely clustered on stem tops — appear flat topped

Habitat: roadsides, cropland, tame forage, native prairie, waste areas and gravel pits

Time of Flowering: May through July

Key Distinguishing Characteristic(s): clustered white flowers on tops of plants with large, finely haired leaves; seed pod is heart-shaped and contains two seeds

Impact: chokes out desired vegetation

Plant Shape	Management
	

Poison Hemlock – *Conium maculatum L.*

Also Known As: deadly hemlock, poison parsley, snakeweed, wode whistle, poison stinkweed, St. Bennet's herb, bad man's oatmeal, poison root

General Description: biennial or short-lived perennial with tap root; white flowers arranged in umbel flowering structure

Leaves: 7 to 15 inches (20 to 40 cm) long; hairless basal; fernlike leaf shape; alternate on stem

Stems: ridged and hollow; pale green with purple spotting

Height: up to 118 inches (300 cm) tall

Flower: white; small, 0.079 to 0.16 inches (0.2 to 0.4 cm) wide that make up terminal and lateral umbels 0.78 to 1.6 inches (2 to 8 cm) wide

Habitat: riparian areas, wetlands, full sun to light shade

Time of Flowering: second year, July through August

Key Distinguishing Characteristic(s): purple streaking on stems

Impact: colonizes disturbed areas rapidly; all parts of the plant are highly toxic to livestock; ingestion of lethal dose can cause death in 2 hours

Plant Shape	Management
	

N Scentless Chamomile – *Matricaria perforata*

Also Known As: scentless mayweed, scentless false mayweed

General Description: annual or biennial, rarely a perennial; dense fibrous roots; white daisy-like flowers

Leaves: smooth, very finely divided, almost carrot-like; alternate on the stem, usually without stalks; scentless

Stems: hairless, highly branched; upward curving branches

Height: 6 to 36 inches (15 to 91 cm) tall

Flower: daisy-like with yellow centre and white petals; 0.8 to 1.6 inches (2.0 to 4.0 cm) wide; occurs individually on stem tips

Habitat: roadsides, yard sites, riparian areas, cropland, tame forage, native prairie, waste areas and gravel pits

Time of Flowering: late May through October

Key Distinguishing Characteristic(s): leaves are finely divided (almost carrot-like) and practically odorless when crushed

Impact: chokes out desired vegetation; seed viable when flowering

Plant Shape	Management
	

N

Hoary Alyssum – *Berteroa incana*

Also Known As: hoary alison, hoary berteroa, hoary false madwort, hoary false alyssum

General Description: greenish-grey, branched, multi-stemmed perennial with tap root growth; star shaped hairs on seed pods, stems and leaves; in the mustard family

Leaves: ½ to 3 inches (1.3 to 7.6 cm) long, numerous, covered in star-shaped hairs, greenish-grey, smooth edges; lanceolate to oblong shaped; short leaf petioles to no petioles; bottom leaves are basal; alternate leaves on stem

Stems: covered in star-shaped hairs, greenish-grey; one or more stems from the same plant; fine branched tops

Height: up to 36 inches (91 cm) tall

Flower: small white flowers in ball-like clusters; individual flowers .08 to 0.11 inches (2 to 3 mm) in diameter with deeply notched petals; numerous

Habitat: sandy or gravelly soils, tame forage, railroad tracks, waste areas, abandoned cropland, roadsides and gravel pits

Time of Flowering: June through September

Key Distinguishing Characteristic(s): star-shaped hairs covering the stem, leaves and seed pods giving the plant a grayish appearance

Impact: competes with other vegetation as it produces seed in high quantities summer-long; taints hay; toxic to horses

Plant Shape	Management
	



N Ox-Eye Daisy – *Chrysantheum leucanthemum*

Also Known As: white daisy; field daisy; dog daisy, moon penny

General Description: shallow rooted perennial plant with white daisy-like flowers; numerous slightly curving stems from one base; reproduces by seeds (at an average of 859,000 seeds per pound of plant) or by creeping roots

Leaves: lower leaves are dark green, toothed, spoon-shaped and stalked; upper leaves are narrower and stalkless or clasp the stem tightly; leaves are reduced in size moving up the plant; stem leaves are alternate, smooth and glossy

Stems: hairless and erect or slightly curving upwards

Height: 8 to 35 inches (20 to 90 cm) tall; may grow over 40 inches (100 cm) tall in riparian areas

Flower: single daisy-like flowers at ends of stems and main branches; 15 to 30, 0.4 to 0.8 inches (1 to 2 cm) long white petals on each flower head; centre florets are bright yellow, short, numerous, densely packed, forming a slightly rounded centre; the flower head base has overlapping, light green bracts with brownish margins

Habitat: roadsides, cropland, abandoned cropland, hayland, tame pasture, native prairie and riparian areas

Time of Flowering: early June to late fall

Key Distinguishing Characteristic(s): when crushed, all parts of the plant have a disagreeably sour odour; daisy like flowers; deep green glossy leaves

Impact: very common and often forms dense infestations in pastures, roadsides, riparian areas, gardens and lawns; travels easily along rivers; seeds float.

Plant Shape	Management
	

Orange Hawkweed – *Hieracium aurantiacum*

Also Known As: devil's weed, devil's paintbrush, orange paintbrush

General Description: perennial with fibrous root system and creeping, leafy stolons; orange, dandelion-like flowers

Leaves: spatula-shaped rosette leaves are 1.5 to 8 inches (3.8 to 20.3 cm) long; bristly hairs cover the leaves; stems are leafless or have small clasping alternate leaves on the lower half

Stems: covered with branched or star-shaped black hairs; one or more stems come from the basal rosette; contain a milky sap

Height: up to 12 inches (30 cm) tall

Flower: yellow-orange to red-orange in colour; 0.5 to 0.75 inches (1.3 to 1.9 cm) wide, dandelion-like with notched petal tips; clustered at the ends of the stems; a single plant can have 1 to 50 flowers

Habitat: tame forage, yard sites, roadsides, gravel pits, native prairie, waste areas and abandoned cropland

Time of Flowering: June through September

Key Distinguishing Characteristic(s): creeping leafy stolons (like strawberries) sprout from the rosette; hairy stems and leaves; yellow-orange to red-orange dandelion-like flowers

Impact: produces a dense mat that chokes out other vegetation

Plant Shape	Management
	

NEED ADDITIONAL INFORMATION?

Saskatchewan Invasive Species Council

www.saskinvasives.ca

Alberta Invasive Species Council

www.abinvasives.ca/home

Saskatchewan iMapInvasives

www.biodiversity.sk.ca/invasives.htm

Saskatchewan Association of Rural Municipalities

www.sarm.ca

Agriculture Knowledge Centre

1 (866) 457 2377

Provincial Weed Control Specialist

1 (306) 787 4673

Allelopathic – the inhibition or retardation of growth in one species of plants by chemicals produced by another species.

Alternate – situated singly (not opposite) on a stem (CPWR).

Annual – plant completes its life cycle in one year; grows from seed, flowers and sets seed in the same year.

Auricles – in grasses, the small, ear shaped appendages at the base of a leaf (CPWR).

Awns – a bristle-like appendage at the end of a flower or seed head (CPWR).

Basal – at the base of the plant (CPWR).

Biennial – plants completing their life cycle in two years; usually only flowering in the second year (CPWR).

Bracts – a small reduced/modified scale or leaf often borne below a flower or flower cluster (CPWR/WAP).

Clasping leaves – the leaf base is partially or completely surrounding the stem (CPWR).

Cobwebby – hairs on plant, generally on leaves, resembling the web of a spider in gauziness.

Crown – somewhat enlarged, bottom portion of a plant from which the stem, roots, and/or stolons grow (NRP).

Deeply lobed – a deep rounded projection of a leaf or a leaf-like part of a plant (WAP).

Diffuse – spread out, scattered.

Entire bracts – large, full shaped bracts with smooth edges; without notches or indentations.

Finely divided leaves – leaves that have numerous delicate separations in one leaf; the leaf sometimes appears 'feather-like'.

Flower head – the grouping of tubular flowers into what appears to be a single flower.

Foliage – the green parts, primarily leaf matter, of a plant.

Glandular hairs – hairs sitting within glands. Glands are small secreting structures that may be protruding, stalked or depressed, and producing oils or nectar (CPWR).

Hybridize – when two plants of a different species within the same genus cross and produce a viable offspring.

Lance-shaped – narrow, but with being wider below the middle and tapering above; generally many times longer than broad (CPWR).

Leaf axil – where the leaf or leaf stem/leaf stalk meets a main stem.

Leaf stalk – joins the leaf to a main stem; also called a leaf stem.

Leaf sheath – the lower part of a leaf blade that clasps and encloses the stem.

Ligule – in grasses, the small, thin appendage projecting from the inner leaf surface at the junction of the stem and the leaf (CPWR).

Lobe – a rounded projection of a leaf or a leaf-like part of a plant (WAP).

Mid-rib – the central vein on a leaf (CPWR).

Multi-stemmed – more than one stem arising from the root of a plant.

Nodding – flower head bent downwards.

Nodes – the point of attachment on a stem from which leaves, branches, and in some cases roots arise; often swollen (CPWR).

Oval bracts – bracts in an egg shape with ends equally tapered (WAP).

Perennial – a plant (or part) that lives more than two years (CPWR).

Prostrate – laying flat along the ground.

Rhizomes – a shallow underground stem which stretches out horizontally, producing new shoots and roots along it (CPWR).

Rosette – a circular arrangement of leaves, often on the ground or at the base of the plant (CPWR).

Scalloped – edges with a series of gentle curves.

Spherical – having the shape of a sphere or globe.

Spike – a flower cluster with stalkless individual flowers on a common stalk (WAP).

Spikelets – the combined group of one or more grass flowers attached to the grass stem directly or with a stalk (NRP).

Spur – a hollow projection from the flower petals or centre; usually at the base of a flower (CPWR/WAP).

Stalk – joins the leaf to a main stem; also called a leaf stem.

Stolons – above-ground, horizontal branch from the base of a plant which may take root and produce a new plant (NRP).

Succulent – fleshy or juicy from the accumulation of water in the tissues (CPWR).

Thorns – short, stiff, sharp-pointed appendages; stouter than bristles, prickles, or spines. (CPWR).

Tubular flowers – a tube-shaped grouping of petals, with little expansion outwards. Often, many tubular flowers are grouped together on a flower head (CPWR).

Wing – any thin, flat, usually membranous expansion on a plant part (i.e. wing along a stem) (CPWR).

Glossary definitions obtained from: *Wildflowers Across the Prairies* (WAP); *Common Plants of the Western Rangelands Volume 3 Forbs* (CPWR); *Northern Range Plants* (NRP)

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