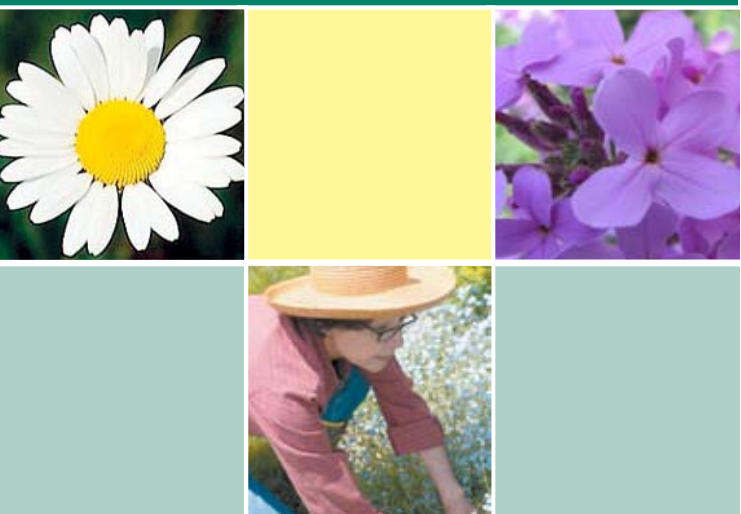


Weed Wise

Gardening in Alberta

A GARDENER'S GUIDE TO
NON-INVASIVE PLANTS



Are you Weed Wise?

No gardener in Alberta knowingly plants invasive plants. Having deep respect for the natural environment, they are diligent to keep their gardens weed-free – going to great lengths, and expense, to weed any pesky plants out.



The best known invasive plant is likely the dandelion. Originally from Eurasia and cultivated for a variety of medicinal purposes, it arrived in North America with the earliest settlers. Today it is the bane of gardens, lawns, boulevards and open areas across the continent.



Like the dandelion, other plants from other parts of the globe, originally introduced as garden flowers, for landscapes, or for their medicinal or food value, have jumped the garden fence to become invasive in the natural environment. For some, the seeds have arrived as stowaways on shipments, hitchhiked along traffic routes, or floated down waterways, managing to survive, thrive, and dominate, in the wild.

Accidental or intentional, these invaders cause not only environmental and ecological degradation, but social and economic loss as well.

Their growth and rapid spread is detrimental to native plants and damages natural areas, rangelands and watersheds. They threaten the biodiversity of our native habitat and can also, ultimately, endanger wildlife.

While relatively few introduced plants actually become invasive – only about 10% – effective action needs to be taken to avoid planting – or to “weed” out – the ones that do. Choosing suitable alternatives can help prevent future spread and serve to protect and preserve Alberta's natural environment.

AIPC's goal is to ensure that the gardeners of today don't unintentionally plant the dandelions of tomorrow!

The ornamental plants featured in this brochure are grown in gardens around Alberta because of qualities valued by gardeners, e.g. beauty, hardiness, rapid growth, prolific flowering, or medicinal properties. They have escaped and invaded, or are threatening to invade, various areas of Alberta. Suitable alternatives are suggested.

Avoid This
Instead Try

LEGEND			
	FULL SUN		DROUGHT TOLERANT
	PARTIAL SHADE		LOW WATER
	FULL SHADE		MODERATE WATER
			REGULAR WATER
			HIGH WATER



Avoid This:

Himalayan Balsam
(aka Himalayan Orchid, Policeman's
Helmet, Poor Man's Orchid)
Impatiens glandulifera

Fast growing, introduced annual. Can reach an impressive size, rapidly out-competing other plants, especially in riparian areas and along shorelines. Orchid shaped flower resembling a British policeman's helmet. Very brittle seed capsules explode upon contact, catapulting seeds 6 metres or more. Shallow root system makes it easily controlled by hand-pulling.

Instead Try:

**Husker's Red
Beard-Tongue**

Penstemon barbatus 'Husker's Red'

Attractive maroon-red foliage with dark green underlay. Forms upright clump. Pink tinged white flowers on strong stems. Blossoms early summer. 1996 Perennial of the Year.

Gas Plant

Dictamnus albus var. *purpureus*

Long-lived, unique perennial. Lemon scented, glossy green leaves. Bushy, upright clumps. Spikes of spidery-looking mauve-pink flowers. Flowers early summer. Worthwhile for cutting. Attracts butterflies.

**Pink Sensation
Monkshood**

Aconitum carnichaeli 'Pink Sensation'

Unusual, soft powder-pink flower on spikes. Blooms July/August. Plants have deeply cut green leaves. Forms an upright clump. Outstanding cut flower. Prefers cool, moist location, away from thirsty tree roots. **CAUTION:** Use gloves to handle; harmful to skin; toxic if eaten.

Also consider...

✓ **Blue Boy Garden Phlox** (*Phlox paniculata* 'Blue Boy')



Avoid This:

Oxeye Daisy

Leucanthemum vulgare

European origin. Widespread invader in North American pastures and natural areas. Classic white daisy. Lower leaves toothed, upper leaves have wavy margins. Reproduces by seed, or by shallow rhizomes (creeping roots). Single plants quickly become large patches. Unpalatable for grazing by livestock or wildlife, giving it a competitive advantage. Has become a serious invasive problem in natural areas. Some cultivars sold as 'Shasta Daisy' are in fact Oxeye Daisy.

CAUTION: Oxeye Daisy seeds are often found in Wildflower mixes. Shasta Daisy should also be avoided in Wildflower mixes.

(See: **Wildflower Mixes**)

Instead Try:

White Alpine Aster

(Aster alpinus var. *albus*)

Branching stems, single daisy-shaped, clear white, yellow-eyed flowers on low clumps of bright green leaves. Blooms in late spring/early summer. Grown in rock gardens or used for edging. Self-seeds to produce successive generations.

White Opal Aster

(Aster novi-belgii 'White Opal')

Fall blooms. Favorite for autumn color. Plants form a bushy clump, bearing loads of small daisy flowers. A dwarf selection with yellow-eyed white blossoms, may have the slightest touch of soft pink during cooler weather. Excellent for cutting.

White Pavement Rose
(aka Snow Owl)

Easy maintenance ground cover. Fragrant. Pure white, semi-double blossoms. Good spreader. Repeater. Strong grower. Tolerant of extremes in temperature. Highly salt tolerant.

Also consider...

- ✓ **Smooth Fleabane** (*Erigeron glabellus*) – Native to Alberta
- ✓ **White Carpet Border Lilies** (Asiatic Type)
- ✓ **Beach Fleabane Daisy** (*Erigeron glaucus* 'Albus')



Avoid This:

**Common
Baby's Breath**

Gypsophila paniculata

Ornamental perennial used in floral arrangements. In winter, stems break off, blowing around in the wind, like tumbleweeds, spreading seed to pastures and natural areas. Widespread infestations across Canada and northern United States.

Instead Try:

German Statice

Goniolimon tataricum

Prickly heads of tiny white flowers. Low rosettes of leathery green leaves. Branching heads of flowers bloom July – August. For rock gardens, xeriscaping, edging or containers. Excellent as fresh or dried flowers. Popular for wreaths. Attracts butterflies. **CAUTION:** All plant parts poisonous if eaten.

Sea Lavender

Limonium latifolium

Bears upright, branching heads of tiny, pale-blue flowers. Produces multiple flowering stems. Great perennial for use as cut flower or for drying. Attracts butterflies.

Filigran Russian Sage

Perovskia atriplicifolia 'Filigran'

1995 Perennial of the Year. Upright bush. Fragrant, grey-green foliage. Lavender blue blossoms. Flowers July to October. Good for cut flowers/dry arrangements. Attracts butterflies.

Also consider...

✓ **Hewitt's Double Meadow Rue** (*Thalictrum delavayi* 'Hewitt's Double')



Avoid This:

Common Tansy

Tanacetum vulgare

Perennial. Reproduces by seed and short rhizomes (creeping roots). Forms dense stands. Pungent, aromatic foliage used medicinally, as an insect repellent, and historically was used for embalming. Contains compounds toxic to humans and livestock, if consumed in large quantities. Unpalatable to grazing animals, gives it a competitive advantage in natural areas and rangelands.

Instead Try:

Fine-leaved Goldenrod

Solidago graminifolia aka *Euthamia graminifolia*

Native Albertan wildflower. Excellent for borders or meadow gardens. Upright, spreading clump of feathery, grass-like green leaves. Many small clusters of bright yellow flowers. Blooms late summer to early fall. Terrific for cutting. Does not cause allergies. Attractive to butterflies.

**Morden Eldorado
Garden Mum**

Chrysanthemum x morifolium aka *Dendranthema x morifolium*

Masses of large, bright, double golden flowers. Blooms late summer to late fall. Tolerates light frost. Among hardiest types of Mums available.

Gold Coneflower
(aka Black-Eyed Susan)

Rudbeckia spp.

Bushy, upright clump. Profuse display of brown-eyed, golden-orange daisies. Blooms July to October. Good winter interest. Outstanding for mass planting and for cutting. Bright gold-flowered *R. fulgida* 'Goldsturm' was 1999 Perennial of the Year.



www.invasiveplants.ab.ca

What Else Can You Do?

Research: Internet searching the Latin name of a plant provides information on whether or not it could become invasive.

Avoid purchasing and planting ornamentals with known invasive tendencies. Non-native plants valued as garden choices for being extremely hardy, rapidly spreading or self-seeding, may also be highly invasive.

Use mulches and ground cover and maintain a healthy landscape. Cover open garden spaces with mulches or ground cover to resist invasion. Keep your lawn and garden well fed, properly watered, and disease- and pest-free to better compete for nutrients, water, and light.

Seek out non-invasive alternatives for attractive but problematic plants. Consider native species which tend to be well adapted to your local environment. For a Native Plant Source List, check out the Alberta Native Plant Council website at www.anpc.ab.ca.

Deadhead plants that have bloomed to prevent seed spread and dispose of weedy invaders properly. Remove invasive plants before flowering and either burn them, or bag for landfill disposal. **Never dispose of garden materials in natural areas!** **Never compost invasive species!**

Avoid collecting pretty "wildflowers" from roadsides and natural areas for your garden. Many of the attractive plants found in ditches and along roads are highly aggressive invading species.

Encourage others to become "Weed Wise" Gardeners.

For further information

Visit the Alberta Invasive Plants Council website:
www.invasiveplants.ab.ca

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This brochure can also be found online at:
<http://invasiveplants.ab.ca/WeedWiseGardening.htm>



Avoid This:

Purple Loosestrife (aka Lythrum 'Morden Pink', 'Morden Glean')

Lythrum salicaria, L. virgatum

Referred to as "the beautiful killer." Tall, strong purple spires. Takes over ponds, beaches, marshes, farm dugouts, irrigation canals. A mature plant can produce 2.5 million seeds. Ornamental cultivars, originally considered sterile, have proven very fertile when cross pollinated. Copious pollen sources for wild plants.



Instead Try:

Pagan Purple or Sunny Skies Delphinium (aka Larkspur)

Delphinium X elatum
vars. 'Pagan Purple' or 'Sunny Skies'

Tall, elegant spires with bluish-purple or sky-blue blossoms. Excellent form. Flowers mostly double. Improved heat and humidity tolerance. No staking required.

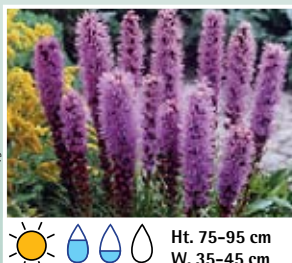


Ht. 120-180 cm
W. 45-60 cm

Floristan Violet Blazing Star (aka Gayfeather)

Liatris spicata 'Floristan Violet'

Selected from a native prairie wildflower. Tall spikes, bright magenta-purple flowers. Blossoms in midsummer. Useful in sunny border, meadow gardens, or containers. Commercial cut flower. Attractive to butterflies.



Ht. 75-95 cm
W. 35-45 cm

Karl Foerster Feather Reed Grass

Calamagrostis acutifolia 'Karl Foerster'

2001 Perennial of the Year. Strong upright feature. Tall spikes, soft greenish flowers, turning rose, then straw-colored. Welcome winter accent.



Foliage Ht. 90-120 cm
Flower Ht. 150-200 cm
W. 60-90 cm

Also consider...

- ✓ **Blue Fortune Anise-Hyssop** (aka Giant Hyssop, Lavender Hyssop)
(*Agastache foeniculum* 'Blue Fortune')
- ✓ **Veronica 'Sunny Border Blue'** (*Speedwell*)

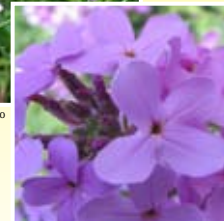
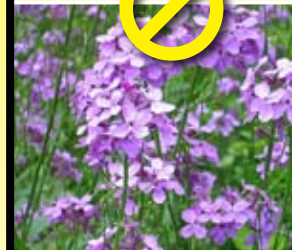


Avoid This:

Dame's Rocket

Hesperis matronalis

Often confused with garden phlox – Dame's rocket has 4 petals and alternate leaves, Phlox has 5 petals and opposite leaves. Flower color can be magenta through to pink or white. Considered a "traditional" garden flower. Prolific seed producer often found in 'wildflower' mixes. Especially problematic near woodlands.



Instead Try:

David's Lavender Garden Phlox

Phlox paniculata 'David's Lavender'

Stunning lavender-pink blossoms on tall stocks. Fragrant. Blooms mid to late summer. Highly mildew resistant. Deer resistant. Attracts hummingbirds, butterflies.



Ht. 106 cm
W. 38-45 cm

Purple Smoke Baptisia (aka False Indigo)

Baptisia australis 'Purple Smoke'

Hybrid. Tall, bushy mound of grey-green foliage. Long spikes of smoky violet-blue and purple flowers on black stems. Good substitute for Lupines. Excellent cut-flower. Attracts butterflies.



Ht. 90-120 cm
W. 60-90 cm

Southcombe Double Craneshill

Geranium oxonianum 'Southcombe Double'

Unusual double flowers with layers of bright pink petals. Blooms from June to August. A true geranium. Versatile and nearly carefree. Compact plants excellent for edging and borders.



Ht. 30-40 cm
W. 30-60 cm

Also consider...

- ✓ **Autumn Joy Sedum** (*Sedum* x 'Autumn Joy')



Avoid This:

Creeping Bellflower (aka Rampion Bellflower)

Campanula rapunculoides

Bell shaped, nodding blue flowers on leafy stalks. Reproduces by seeds, slender creeping rhizomes and tuberous root pieces. Rhizomes can travel under fences, sidewalks and concrete. Produces up to 15,000 seeds/plant. Can displace and dominate lawns and perennial sun or shade garden. Survives periods of drought. Tuberous roots, creeping rhizome system and resistance to some herbicides make it extremely difficult to eradicate.



Instead Try:

Blue Clips (aka Carpathian Harebell)

Campanula carpatica 'Blue'

Perennial mounds of blue, cup-like flowers, 2.5 cm. across, atop a compact rounded clump of dark green leaves. Blooms June to Sept. Excellent for borders and edging.



Ht. 15-30 cm
W. 15-30 cm

Smooth Blue Penstemon (aka Waxleaf Penstemon)

Penstemon nitidus

Native to southern third of Alberta. Incredibly blue, tubular flowers rise above thick, pale green/gray leaves. Flowers late May to early July, depending on elevation. Excellent for rock gardens. Best in gravelly, well drained soil. Attracts butterflies and hummingbirds.



Ht. 20-30 cm
W. 20-40 cm

Blue Mirror Delphinium

Delphinium grandiflorum 'Blue Mirror'

Different from traditional tall, spiky Delphiniums. Forms a low, bushy mound. Plants bear loose sprays of single, electric-blue flowers throughout the summer. Ideal for containers, rock gardens or edging. Self sows once established. Do well in areas with short, cool summers. Outstanding cut flower. **CAUTION:** Harmful if eaten.



Ht. 30-45 cm
W. 25-30 cm

Also consider...

- ✓ **Hybrid Beard-Tongue** (*Penstemon* 'Pink Chablis')



Avoid This:

Yellow Clematis

Clematis tangutica

Spreading vine plant. Yellow, pendant flowers. Seeds have silky, long tufts easily carried on wind and water. Aggressive plant once established. Urban and natural area infestations are becoming more common displacing native flora and increasing fire hazard. Also moving into mountain Parks.



Instead Try:

Honeybelle Honeysuckle

Lonicera X brownii

Deep golden colored flowers. Compact twining vine. Clean, round medium-green foliage. Blossoms throughout season. Attracts hummingbirds and butterflies.



Ht. 3-6 m
W. 3-6 m

Golden Hops Vine

Humulus lupulus 'Aureus'

Attractive golden foliage. Fragrant. Unusual cone-like greenish yellow fruit called "hops." Large herbaceous, perennial vine, dies to the ground at end of growing season. Re-grows to height of 6 m. in single season. Rust or mildew sometimes a problem.



Ht. 4.5m - 6m
W. 4.7m - 6m

Western White Clematis (aka Old Man's Beard)

Clematis ligusticifolia var. *ligusticifolia*

Native to Alberta. Lovely white flowers with yellow centers. Blooms June/July. Decorative "Old Man's Beard" seed head. Twining climber.



Spread up to 20 m

Also consider...

- ✓ **Dart's Gold Ninebark** (*Physocarpus opulifolius* 'Dart's Gold')
- ✓ **Bud's Yellowtwig Dogwood** (*Cornus sericea* 'Bud's Yellow')
- ✓ **Rock Clematis** (*Clematis columbiana*)

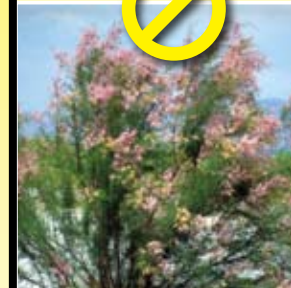


Avoid This:

Tamarisk (aka Salt Cedar)

Tamarix spp.

Deciduous shrub/small tree. Grows best along creeks/rivers/ponds. Scale-like leaves concentrate salt from ground water in the soil. Salt released back into the soil with leaf litter. Increased salinity in the soil makes it unsuitable for many native plant/shrubs. Deep rooted. Consumes as much as 750 litres of water/day. Grows 3-4 metres in a single season. Mature plant can produce 600,000 seeds annually. Seeds easily dispersed by wind and water. Severed stems and shoots root readily in moist soil.



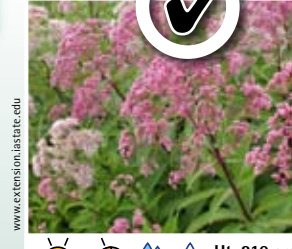
Among Nature
Conservancy's Dirty
Dozen and the World
Conservation Union's 100
World's Worst Invaders.

Instead Try:

Joe Pye Weed "Purple Bush"

Eupatorium maculatum 'Purple Bush'

Outstanding dusty-pink flower display. Blooms August – October. Durable, large herbaceous perennial. Attracts butterflies. (NOTE: Spotted Joe Pye Weed (*E. maculatum*) Native to Alberta. Pink flowers. Medicinal properties.)



Ht. 210 cm
W. 150 cm

Queen of the Prairies

Filipendula rubra 'Venusta'

Bold accent plant. Coarsely divided green leaves. Forms mounds with large panicles of bright pink flowers. Sturdy upright stems.



Ht. 120-180 cm
W. 60-90 cm

Lilacs

Syringa spp.

Classic fragrance. Depending on variety, blooms early spring to mid summer. Adapted to many soil types/climate conditions. Variety of uses, from low urban hedges, e.g. Dwarf Korean Lilac (*S. meyeri* 'Palibin'), to large shrubs for screening, e.g. Donald Wyman Lilac (*S. x hyacinthiflora* 'Donald Wyman'), a non-suckering type.



Also consider...

- ✓ **Wichita Blue Juniper** (*Juniperus scopulorum* 'Wichita Blue')
- ✓ **Tolleson's Blue Weeping Juniper** (*Juniperus scopulorum* 'Tolleson's Blue Weeping')
- ✓ **Hardhack** (aka Steeplebush) (*Juniperus douglasii*)



Avoid This:

Wildflower Mixes

Many "Wildflower" mixes contain seeds of non-native, aggressive plant species legislated as invasive. Contents of these mixes are rarely listed accurately by their scientific names. The wide variety of common names used for some plants adds to the confusion.

Never purchase a seed mix without the packet being clearly labeled with scientific names. Some seed packets with contents labeled may still contain surprise invaders not listed.



Instead Try:

Individual packets

Planting packets of individual wildflower species is preferable to taking the chance and planting wildflower mixes contaminated with invasive species. It is far LESS work to spend time at the start being careful what is planted. Otherwise, a gardener could spend follow up years battling unwanted invasive plants.



The Alberta Invasive Plants Council recommends researching wildflower seed growers within a local area. Choose only the most reputable local sources for seed to ensure species planted are actually native to, and adapted for, a specific area.

CAUTION: Regional mixes (those listed for certain general areas, e.g. Prairie mixes) don't necessarily contain native seed.

See also:

- ✓ **1. Wildflower Woes.**
www.acfnewsources.org/science/wildflower_woes.html
- ✓ **2. Alberta Native Plant Council's ANPC Guidelines for Purchase and Use of Wildflower Seed Mixes.**
www.anpc.ab.ca/assets/wildflower_seeds_guidelines.pdf