Name	Description	Recommended control method	Invades undisturbed land	State list*
overwinter as seedli	olete their life cycle in one year. They make congs, giving them a competitive edge over pereasy to control by hoeing or hand pulling, but the impractical.	nnials that are still dormant. Typically,	awn -	
Cheatgrass Bromus tectorum	4-24" tall grass. Aggressive, grows earlier than native perennials. <i>Awns</i> , fibers on the seeds, lodge in clothing and pets' feet and mouths. Fire hazard in late summer. Colonizes undisturbed habitat.	Hoeing or hand pulling seedlings works well on small patches. Bacterial inoculant to inhibit germination is being tested. Light concentrations of Roundup are effective at seedling stage. It may take many years to deplete the seed bank.	yes	
Yellow starthistle Centaurea solstitialis	2-3' tall with yellow flowers on single stalks, armed with long, sharp straw-covered thorns.	New invader in the valley, uncommon but worth watching for. It covers millions of acres in the West. Eradication is critical. Hand pulling works on small patches; pull before seeds develop.		В
Kochia Kochia scoparia	1-5' tall with many branched stems, inconspicuous flowers. Many 1-2' deep green leaves. Common along roadsides and cultivated areas.	Hoe seedlings or hand pull as plants develop.		В
Russian thistle Salsola kali	2-3' tall. Red-striped stems with spiny bracts near each flower. Large mounded plant at maturity that breaks off and tumbles in wind. Common along roadsides.	Hoeing or hand pulling seedlings works well on small patches. Can develop resistance to herbicides. In large areas, seedlings are susceptible to cultivation, herbicide, or torching, depending on the site.		
Yellow sweetclover Melilotus officinalis	Up to 6' tall member of the pea family with small yellow flowers. Leaves divided into three distinct segments. Prefers slightly moist sites. Attracts bees; fixes nitrogen in soil.	Often temporal in habit. Mowing effective at preventing seed production. Deep roots make it difficult to hand pull.		
Tumble mustard Sisymbrium altissimum	2-3' member of the mustard family with small yellow flowers. Found in fields, along driveways and rangeland. Forms tumbleweed at maturity; dry tumbleweeds collect at fencelines.	Hoeing or hand pulling works well on small patches; repeated mowing helps control large areas.		
basal rosette; the sec	plete their life cycle in two years. The first yea cond year they grow up, flower, produce seeds ear before they produce seeds; deep roots are	s, then die. The best control is hand pulling		
Diffuse knapweed, Barnaby thistle Centaurea diffusa	2-3' tall with white and pink flowers on branching stalks. Gets prickly as it dries up.	Hand pull second-year plants. Seed bank can take years to deplete. Effective biocontrols are available; local populations dropped sharply after introduction of knapweed seedhead weevil.	yes	В

Name	Description	Recommended control method	Invades undisturbed land	State list*
Mullein Verbascum thapsus	Grows to over 6'. Prolific seeder with woolly grey-green leaves. Tall yellow candle inflorescence. Birds love seedheads in fall.	Hoe seedlings or hand pull plants as they bolt. Difficult to pull when mature.		
Salsify Tragopogon dubius	2-3' tall; narrow leaves with milky juice. Large yellow flowers close late in the day. Seed heads resemble giant dandelions.	Easily hand pulled; bag plants with buds and blooms – seedheads can mature on the ground after being pulled.		
Perennial weed roots regenerat	ds store reserves in extensive roots; new plant e after disturbances, perennials are more diffi	s come up every year from these roots. Because cult to eradicate than annuals or biennials.		
Baby's breath Gypsophila paniculata	Wide-branching perennial that grows to 4'. Narrow, waxy leaves. Breaks off and rolls like a tumbleweed. Introduced by dried flower industry.	Difficult to hand pull. Two or three mowings per season can eliminate seed production. Consider spot-spraying herbicide.		С
Bulbous bluegrass <i>Poa bulbosa</i>	Short tufted grass that forms mats. Reproduces asexually from bulblets that look like seeds. Introduced as early forage plant for livestock; spreading rapidly throughout the shrub-steppe.	Hand pulling works in some soil types, though small fragments left behind will reestablish. Early spot-spraying with light concentrations of Roundup appears to be effective.	yes	
Dalmatian toadflax <i>Linaria</i> dalmatica	2-3' stalks of yellow snapdragon flowers atop clasping waxy leaves. Spreads through roots. Introduced as ornamental. Deer spread seed to remote locations.	Takes years to control. Hand pulling can be effective in loose soils. Repeated cultivation required each season in large-scale agricultural settings. Biocontrols are available but effective only on large populations. Aggressively treat new populations.	yes	В
Russian knapweed <i>Centaurea</i> <i>repens</i>	2-3' tall, with white and pink flowers. Spreads through roots.	Extremely difficult to eradicate; takes years to control. Consider herbicides, cultivation, and competing vegetation. Aggressively treat new populations.		В
Whitetop Cardaria draba	1-2' tall, with numerous small white flowers atop waxy-green leaves with wavy margins. Heart-shaped capsule seeds. Spreads through roots. Colonizes a variety of habitats but prefers some moisture. Rapidly expanding in the Methow Valley.	Extremely difficult to eradicate; takes years to control. Consider herbicides, cultivation and competing vegetation. Aggressively treat new populations.	yes	С

Class A - highest priority to prevent and eradicate, eradication on private property required by law Class B - prevent where not widespread, contain where abundant Class C - already widespread, county handles suppression and control

Weed Control Methods – What's in the Toolbox

Using one weed control method is rarely effective – use a combination of methods for best results. Every site is different and each of us has different goals. Get a variety of opinions; talk with your neighbors and local experts for guidance and practical advice.

Planting competing vegetation is the best way to control weeds. Promptly fill any disturbed soil with desirable plants. As you remove weeds, replace them with native seeds or plants.

Hand pulling is an excellent way to control annual and biennial weeds. Pull them when soil is moist, and before seeds form. Plants without seeds can be left on the ground or piled and composted. Plants that have flowered should be bagged and taken to the dump, or burned. Hand pulling is labor-intensive; consider hiring a few high school students, or enlist some neighbors. Hand pulling creates small soil disturbances; consider reseeding as you weed.

Hoeing works well for annual weeds with weak roots, especially very young seedlings. Scuffle and stirrup hoes are effective but can create favorable conditions for new weeds to sprout. Reseed small soil disturbances.

Cultivation of the soil is used on large-scale agricultural lands. Tilling, discing, or plowing kills many weeds, though it can bring more

weed seed up to the surface and can worsen problems with *rhizomatous* weeds that spread through their roots, like quackgrass, whitetop, and Russian knapweed. Repeated cultivation is necessary to reduce weed seed banks and discourage rhizomatous species. After cultivation has successfully knocked back weeds, cover crops like triticale and oats should be planted to compete with weeds and recondition soil prior to native plant restoration.

Mowing can effectively reduce seed production. Time mowing

IF YOU DECIDE TO USE HERBICIDE....

- Use it as a transition to more desirable vegetation, not as regular maintenance.
- Carefully choose products and time applications to get the best results with the least amount of chemicals.
- Spot-spray or paint herbicide onto leaves to get good results with little herbicide.
- Spray carefully to avoid harming native plants.
- After an initial application has time to work, survey the weeds' status; you may need to follow up with other types of weed control or an additional application of herbicide.

for when plants have begun blooming but have not yet set seed. Weeds may require repeated mowing; some species react by sending out flowering shoots at ground level, and a collection of weed species may bloom at varying times. Weed whackers, heavy-duty mowers, and tractor mowers work well for this. Take care to avoid harming native plants.

Biocontrols, or biological agents, are typically herbivorous insects imported from the target weed's native range. Here in the Methow Valley, the knapweed seedhead weevil, *Larinus minutus*, has successfully reduced knapweed. Recently diffuse knapweed has recovered in some areas, due in part to the cyclic nature of relationships between control agents and target species.