

# WEED MANAGEMENT IN MINT

EM 8774  
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Oregon State University Extension Service

## Weed terms

- AWN**—A slender, usually terminal bristle.
- AXIL**—The angle between a leaf and stem.
- BRACT**—A small, leaflike structure below a flower.
- GLABROUS**—Smooth; without hairs.
- LIGULE**—A thin, membranous outgrowth or fringe of hairs from the base of a grass blade.
- PANICLE**—Loose, irregularly compound flowering part of a plant with flowers borne on individual stalks.
- PETIOLE**—Stem or stalk of a leaf.
- RACEME**—Arrangement of flowers along a stem on individual stalks about equal in length.
- ROSETTE**—Compact cluster of leaves arranged in an open basal circle.
- SEPAL**—The outer, leaflike part of a flower.
- SILIQUE**—Elongated capsule with two separate valves.
- SPIKELET**—Flower cluster in grasses consisting of usually two basal bracts and one or more florets.

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## Use herbicides safely!

- Wear protective clothing and safety devices as recommended on the label. Bathe or shower after each use.
- Read the label—even if you've used the product before. Follow closely the instructions on the label (and any other directions you have).
- Be cautious when you apply herbicides. Know your legal responsibility as a pesticide applicator. You may be liable for injury or damage resulting from herbicide use.



## Witchgrass *Panicum capillare*

Annual. Erect, 1 to 2 feet tall and softly hairy throughout. Leaves broad and somewhat wavy. Spikelets in an open, branched panicle.



## Red orach *Atriplex rosea*

Annual. Erect with multiple branches up to 1 foot in height. Alternate leaves with wavy margin and silvery scurf. Branches terminate with numerous inconspicuous flowers.



## Redroot pigweed *Amaranthus retroflexus*

Annual. Egg-shaped leaves are dull green on top and have defined veins. Underside of young leaves often red. Erect stem, often 2 to 3 feet tall, shaded red or red-striped and often hairy. Flowers arranged in large, spike-like flowers.



## Russian thistle *Salsola iberica*

Annual. Several branches form a rounded bush 1 to 3 feet tall. Lower leaves are long and stringlike, while upper leaves are short and tipped with a stiff spine. Green flowers are produced in upper leaf axils and have spiny bracts.



## Ryegrass, Italian *Lolium multiflorum*

Annual. Erect stems often purplish at base and 1 to 2½ feet tall. Shiny, dark green leaves have prominent veins. Long spikes have spikelets that alternate along the stem.



## Salsify, common *Tragopogon porrifolius*

Biennial. Erect, 2 to 3 feet in height with leaves that resemble grasses. Branched taproot, leaves, and stems exude milky juice when injured. Purple flowers.



## Shepherdspurse *Capsella bursa-pastoris*

Annual. Lower leaves deeply lobed and form a basal rosette, while upper leaves are slightly toothed or entire on erect stems from 3 to 18 inches tall. Small, white flowers on end of elongated racemes. Fruits are heart-shaped.



## Sorrel, red *Rumex acetosella*

Perennial. Woody stem ½ to 2 feet tall with few branches. Lower leaves arrowhead-shaped; upper leaves slender and often without lobes. Red-orange or orange-yellow flowers on terminal branches.



## Sowthistle, annual *Sonchus oleraceus*

Annual. Erect fleshy stem 1 to 4 feet in height with deeply lobed leaves. Lower leaves with one to three lobes along each side, upper leaves often not lobed. Numerous pale yellow flowers.



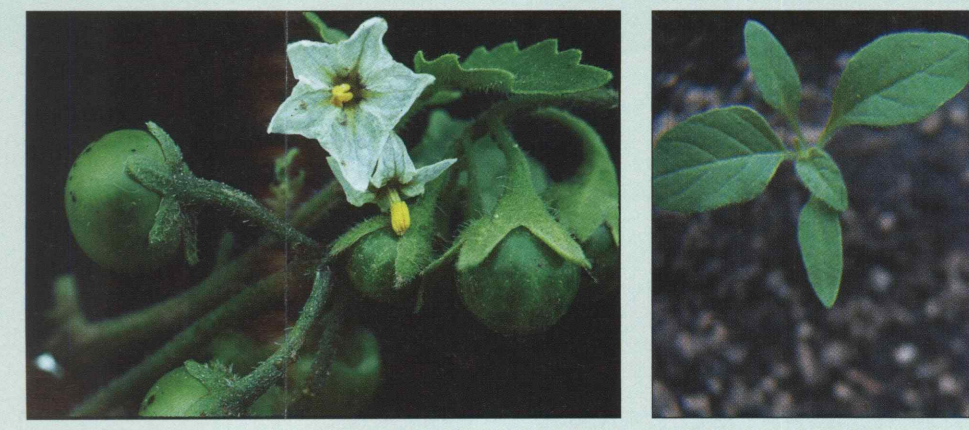
## Tumble mustard *Sisymbrium altissimum*

Winter annual. 2 to 5 feet tall. Branched upper stem creates bushy appearance. Lower leaves large, coarsely divided into leaflets; upper leaves small, less divided. Yellow flowers form small raceme.



## Nightshade, black *Solanum nigrum*

Annual. Erect glabrous or hairy stems ½ to 2 feet tall. Leaves are smooth to wavy edged. Young leaves often deep purple underneath. White or pale blue flowers resemble those of potato or tomato.



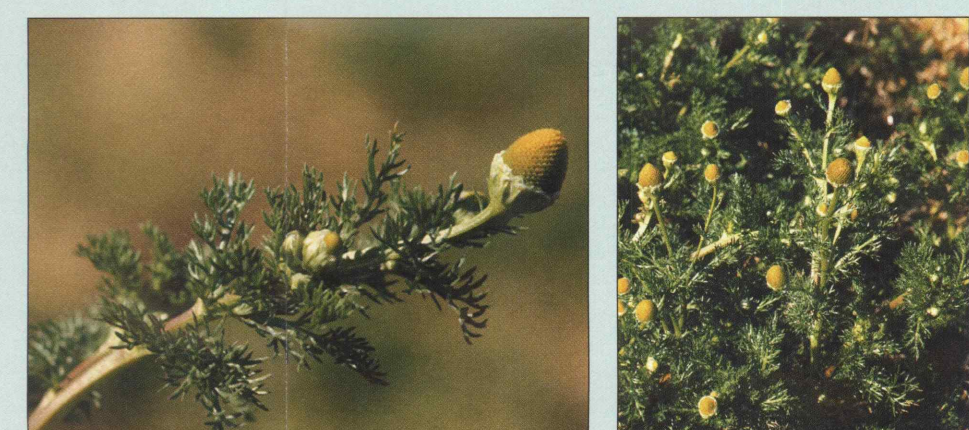
## Nightshade, hairy *Solanum sarrachoides*

Annual. Erect stem 1 to 2 feet tall. Leaves are hairy and sticky when touched. Flowers resemble those of potato or tomato.



## Nutsedge, yellow *Cyperus esculentus*

Perennial. Triangular stems emerge in groups of three and have grass-like, pale yellow leaves. Spreads primarily by underground tubers produced at end of rhizomes. Pale yellow or brownish flowers produced in spikelets.



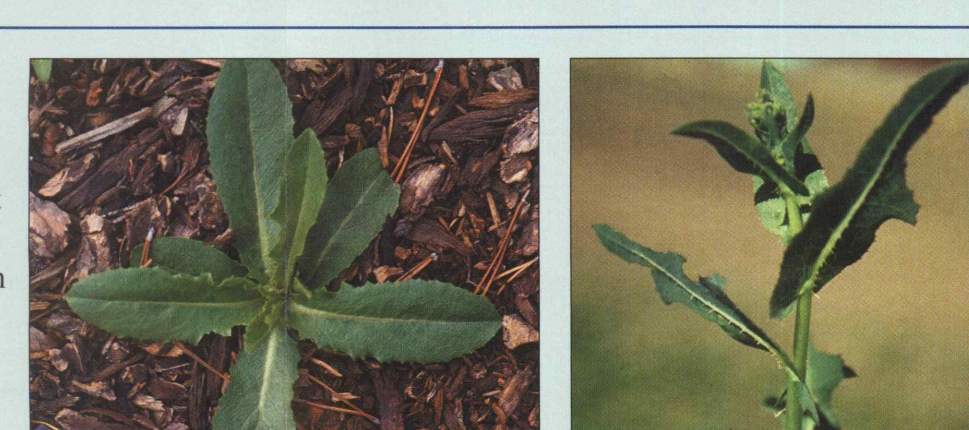
## Pineappleweed *Matricaria matricarioides*

Annual. Erect, branched stem 1 foot tall. Leaves greatly divided or feathered. Branches terminate with yellow-green flowers. Pineapple odor when plant is crushed.



## Powell amaranth *Amaranthus powellii*

Annual. Leaves are shiny, entire, and lack hairs. Lower stem, particularly of seedlings, is tinged red. Often confused with redroot pigweed. Leaves are more diamond-shaped or pointed than redroot pigweed, and flower bracts are longer, pointed.



## Prickly lettuce *Lactuca serriola*

Annual/Biennial. Produces erect stems 2 to 4 feet in height from a basal rosette. Leaf margin and lower midrib lined with prickles. Exudes milky sap when injured.



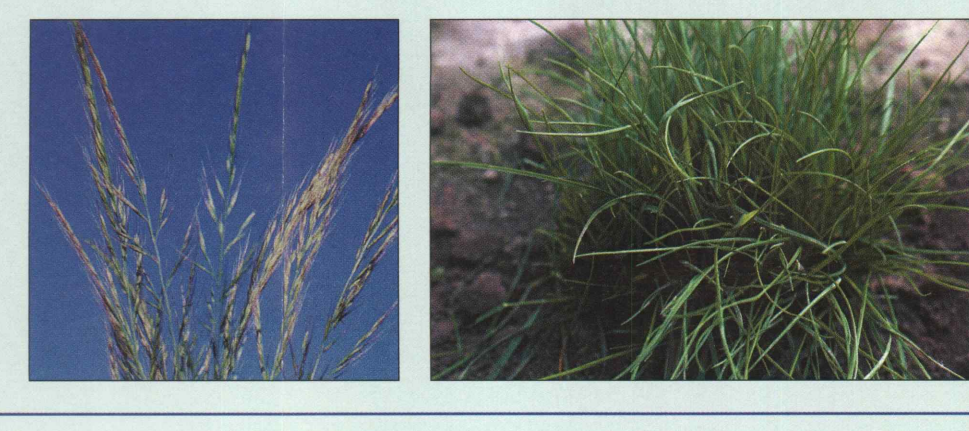
## Puncturevine *Tribulus terrestris*

Annual. Plants form mat with trailing stems 3 to 5 feet in length. Hairy leaves are opposite and divided into four to eight pairs of leaflets. Fruits consist of five sharp, piercing spines.



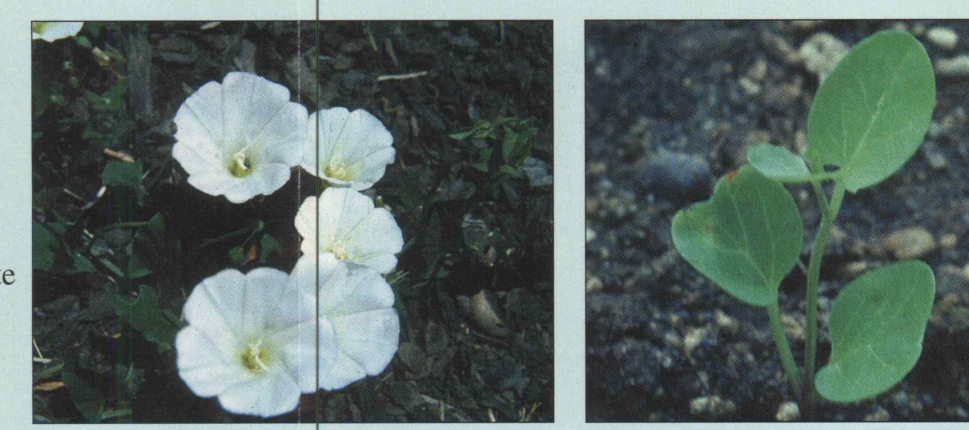
## Quackgrass *Elytrogia repens*

Perennial. Erect stems 1 to 3 feet tall rise from shallow below-ground rhizomes. Leaf blades are flat and have small clawlike auricles that wrap around the leaf sheath. Short spikelets arranged in two rows.



## Rattail fescue *Vulpia myuros*

Annual. Up to 2 feet tall. Narrow leaf blades are folded and hairless. Panicles are slender and up to 8 inches in length. Awns are ¾ to 1 inch long.



## Field bindweed *Convolvulus arvensis*

Perennial. Prostrate stems 1 to 4 feet in length form dense mats. Alternate leaves are arrowhead-shaped with rounded tips. Bell-shaped white or white-pink flowers measure 1 inch in diameter.



## Filaree *Erodium cicutarium*

Annual/Biennial. Numerous stems 1 inch to 2 feet in length form a spreading rosette. Hairy leaves finely divided. Flowers are purple to pink in clusters of two or more.



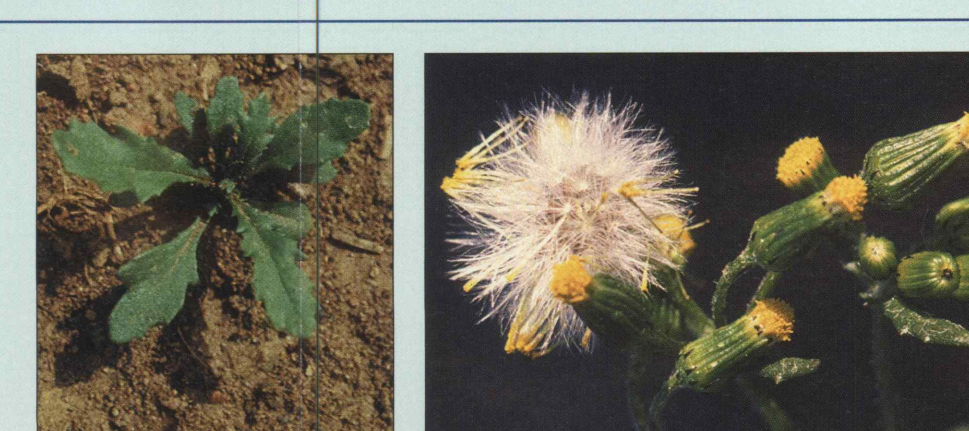
## Flixweed *Descurainia sophia*

Annual. Stem 8 to 24 inches high with finely dissected, alternately arranged leaves. Leaves covered with numerous branched hairs. Inflorescence forms a raceme with small yellow-green flowers. Seed capsules ½ to 1½ inch long.



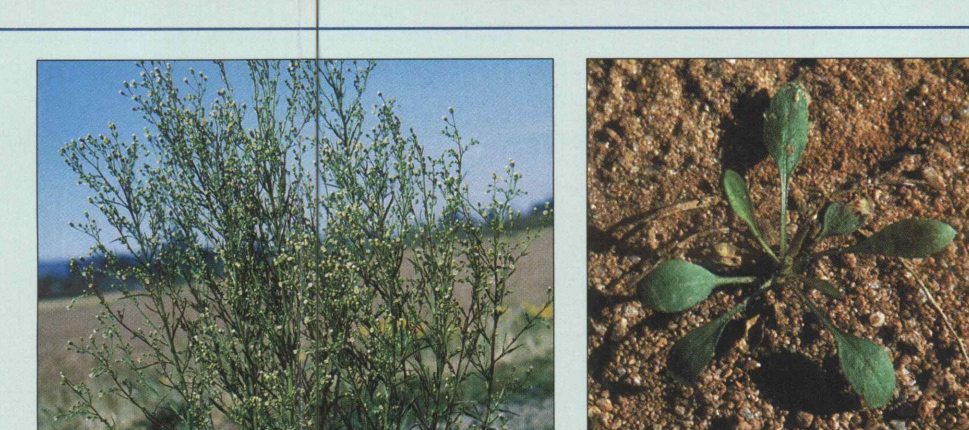
## Foxtail, green *Setaria viridis*

Annual. Forms clumps up to 3 feet in height. Rough leaves are rolled in bud and have hairs only on the lower margin. Hairy ligule. Seedhead is "fox-tail"-like and pale green.



## Groundsel, common *Senecio vulgaris*

Annual/Biennial. Branched with taproot. Leaves are alternate and irregularly produced. Young leaves are hairy and purplish on the underside. Yellow disk flowers on several heads per plant.



## Horseweed *Conyza canadensis*

Annual. Young plants form rosette with softly toothed and hairy leaves. Mature plants produce a 2- to 5-foot stem that is terminally branched. Numerous small, white or pink flowers produced on stem branches.



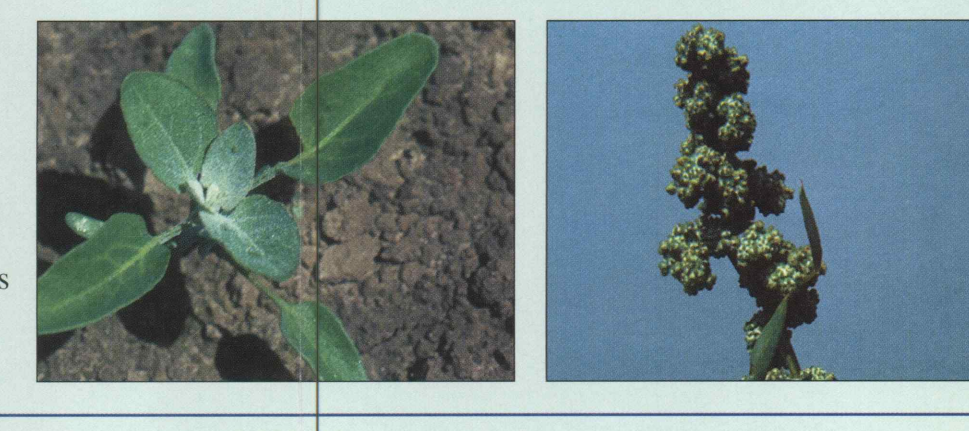
## Knotweed, prostrate *Polygonum aviculare*

Annual. Prostrate with multiple stems 1 to 3 feet in length. Stems swollen at each branch. Leaves slender and hairless with papery sheath at leaf base. Clusters of small, pink flowers are produced in leaf axils.



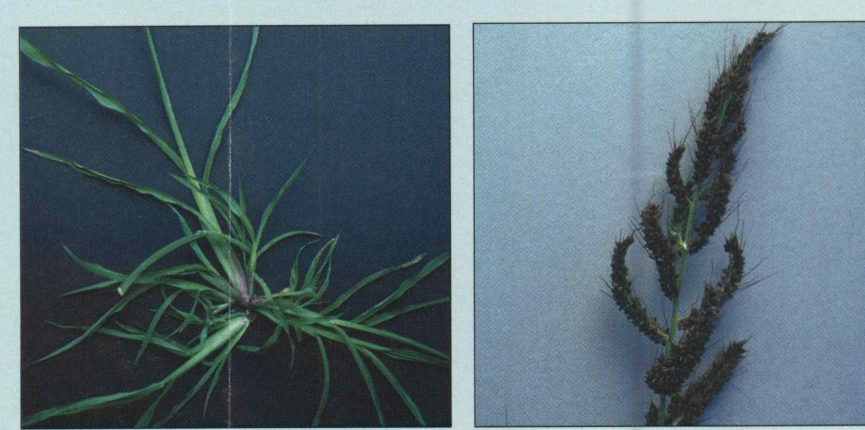
## Kochia *Kochia scoparia*

Annual. Erect, 1 to 6 feet in height with multiple branches. Slender, alternate leaves are smooth on top and hairy below. Flowers form short spikes in axils of upper leaves.



## Lambsquarters, common *Chenopodium album*

Annual. Erect with branched stem up to 5 feet in height. Leaves are irregularly toothed and dusted with a gray, mealy coating. Inconspicuous flowers produced on upper stem ends and in leaf axils.



## Barnyardgrass *Echinochloa crus-galli*

Annual. Vigorous and numerous stems 1 to 5 feet tall with stem bases often red or purple. Flat, wide leaves without a ligule. Panicles often are red or purple.



## Bittercress, little *Cardamine oligosperma*

Annual/Biennial. Erect stems branched at plant base form a basal rosette. Numerous leaflets increase in size along individual stems. Small, white flowers produced on stem ends. Mature seeds propelled from siliques when touched.



## Bluegrass, annual *Poa annua*

Annual. Flattened stems that are spreading or erect form dense clumps 2 to 12 inches long. Short leaves are bright green with the tip curved. Inflorescences on short, spreading branches.



## Buckwheat, wild *Polygonum convolvulus*

Annual. Prostrate with trailing stems. Leaves alternate, heart-shaped, with base pointing toward petiole. Papery sheath around stem at base of leaf petiole. Small, green flowers in leaf axils.



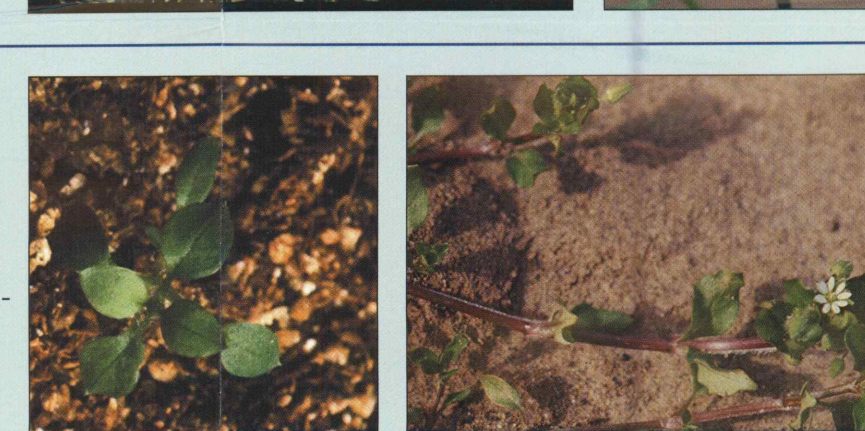
## Canada thistle *Cirsium arvense*

Perennial. Forms colony of plants interconnected by deep roots. Stems 1 to 4 feet tall and branched above. Leaves are alternate and lobed with spiny margins. Flowers are purple or occasionally white in heads ½ to 1 inch in diameter.



## Catchweed bedstraw *Galium aparine*

Annual. Numerous square stems often intertwined and up to 7 feet in length. Slender leaves with stiff hairs in whorls of six to eight. Minuscule, white flowers in leaf axils.



## Chickweed, common *Stellaria media*

Annual. Prostrate, branched stems form mat 4 to 12 inches tall. Lower leaves small with petioles; upper leaves lack petioles, are up to 1½ inches long. Numerous white flowers; petioles shorter than sepals.



## Dandelion, common *Taraxacum officinale*

Perennial. Taprooted. Forms a basal rosette of toothed leaves. Yellow flowers produced on leafless stalks. Vegetative parts exude milky sap when injured.



## Downy brome *Bromus tectorum*

Annual or winter annual. 4 to 30 inches tall with densely hairy leaf sheaths and blades. Inflorescence usually is drooping and one-sided. Awns are ¾ to 1 inch long and often slightly purple at maturity.

# HERBICIDES FOR USE IN MINT

Weed Species	Herbicide Mode of Action	Buctril (bromoxynil)	Goal (oxyfluorfen)	Karmex, Direx (diuron)	Sinbar (terbacil)	Treflan (trifluralin)	Devrinol (napropamide)	Stinger (clopyralid)	Basagran (bentazone)	Poast (sethoxydim)	Assure II (quizalofop)	Select Max (clethodim)	Gramoxone Inteon, Firestorm (paraquat)	Chateau (flumioxazin)	Command (clomazone)	Spartan (sulfentrazone)	Prowl H <sub>2</sub> O (pendamethalin)	Use Notes
		6	14	7	5	3	15	4	6	1	1	1	22	14	13	14	3	
lb ai/A or lb ae/A																		
Barnyardgrass ( <i>Echinochloa crus-galli</i> )	—	—	0.6–2.4	—	0.5–0.75	4.0	—	—	0.28–0.47	0.034–0.0825	0.07–0.24	0.5–0.75	—	0.5	—	—	0.71–1.9	Usually emerges too late for control with Gramoxone. Interference from established mint canopy might limit herbicide coverage and control with later applications of Poast or Assure II. Devrinol is effective followed immediately by irrigation or moderate precipitation.
Bittercress, little ( <i>Cardamine oligosperma</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	—	4.0	—	—	—	—	—	0.5–0.75	—	—	—	—	—	Tank-mix Gramoxone with Goal, Sinbar, or Karmex/Direx if bittercress is large.
Bluegrass, annual ( <i>Poa annua</i> )	—	0.5–1.5	0.6–2.4	0.8–1.6	0.5–0.75	4.0	—	—	—	—	0.07–0.24	0.5–0.75	—	—	—	—	—	Early application of Sinbar or Direx/Karmex is most effective. Herbicide-resistant annual bluegrass is common in western Oregon. Addition of Gramoxone to residual herbicides might be necessary for adequate control.
Buckwheat, wild ( <i>Polygonum convolvulus</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	0.5–0.75	4.0	0.124–0.375	1.0–2.0	—	—	—	0.5–0.75	—	—	—	—	—	Goal often not adequate, and higher rates might cause crop injury. Buctril and Basagran provide good control.
Canada thistle ( <i>Cirsium arvense</i> )	—	—	—	—	—	—	0.124–0.375	1.0–2.0	—	—	—	—	—	—	—	—	—	Basagran can be applied in summer without significant crop injury, but might not be as effective as fall application of Stinger.
Catchweed bedstraw ( <i>Galium aparine</i> )	—	0.5–1.5	—	—	—	—	—	1.0–2.0	—	—	—	0.5–0.75	—	—	—	—	—	Goal is very effective. Basagran plus Goal (1.0 + 0.125 lb ai/A) has provided good control in research plots; however, control might be compromised in some situations by rates lower than those labeled. Gramoxone is effective on very young plants.
Chickweed, common ( <i>Stellaria media</i> )	—	—	0.6–2.4	0.8–1.6	0.5–0.75	4.0	—	1.0–2.0	—	—	—	0.5–0.75	0.128	—	—	—	—	Karmex/Direx, Sinbar, and Chateau are effective. Add Gramoxone if chickweed is well established.
Dandelion, common ( <i>Taraxacum officinale</i> )	—	0.5–1.5	0.6–2.4	0.8–1.6	—	—	0.124–0.375	1.0–2.0	—	—	—	—	—	—	—	—	—	Late-fall application of Goal will control seedling dandelions and many established dandelions up to 6 inches in diameter. Karmex/Direx and Sinbar also control seedling dandelions.
Downy brome ( <i>Bromus tectorum</i> )	—	—	—	0.8–1.6	—	4.0	—	—	—	0.034–0.0825	0.07–0.24	0.5–0.75	—	0.5	—	—	—	Add Gramoxone to Sinbar if downy brome has more than two leaves. Assure II is most effective when downy brome is small.
Field bindweed ( <i>Convolvulus arvensis</i> )	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Spartan can provide limited suppression of bindweed.
Filaree ( <i>Erodium cicutarium</i> )	0.25–0.38	0.5–1.5	—	0.8–1.6	—	4.0	—	—	—	—	—	0.5–0.75	—	—	—	—	—	Gramoxone plus Goal usually most effective. When filaree is small, Gramoxone plus Sinbar also is effective.
Flixweed ( <i>Descurainia sophia</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	—	—	—	1.0–2.0	—	—	—	0.5–0.75	0.128	—	0.14–0.375	—	—	Goal, Sinbar, and Karmex/Direx are effective preemergence. Add Gramoxone to residual herbicides if rosette is well established.
Foxtail, green ( <i>Setaria viridis</i> )	—	—	—	—	0.5–0.75	—	—	—	0.28–0.47	0.034–0.0825	0.07–0.24	0.5–0.75	—	0.5	—	—	—	Usually emerges too late for control with Gramoxone. Assure II and Select Max provide good control.
Groundsel, common ( <i>Senecio vulgaris</i> )	0.25–0.38	0.5–1.5	—	—	—	—	0.124–0.375	1.0–2.0	—	—	—	0.5–0.75	0.128	—	0.14–0.375	—	—	Resistance to Buctril common in some regions. The combination of Gramoxone and Goal (0.31 + 0.25 lb ai/A) is very effective during the dormant season. Stinger most effective in fall or tank-mixed with Buctril or Basagran in spring.
Horseweed ( <i>Coryza canadensis</i> )	0.25–0.38	—	0.6–2.4	—	—	—	0.124–0.375	—	—	—	—	0.5–0.75	0.128	—	0.14–0.375	—	—	Gramoxone plus Karmex/Direx more effective than either herbicide alone.
Knotweed, prostrate ( <i>Polygonum aviculare</i> )	—	0.5–1.5	—	0.8–1.6	0.5–0.75	4.0	0.124–0.375	—	—	—	—	0.5–0.75	—	—	—	—	—	Gramoxone plus Sinbar or Gramoxone plus Goal provides good control.
Kochia ( <i>Kochia scoparia</i> )	0.25–0.38	—	—	0.8–1.6	0.5–0.75	—	—	1.0–2.0	—	—	—	0.5–0.75	0.128	0.5	0.14–0.375	0.71–1.9	—	Spartan controls kochia. Buctril and Basagran provide limited control of small kochia.
Lambsquarters, common ( <i>Chenopodium album</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	0.5–0.75	4.0	—	—	—	—	—	0.5–0.75	0.128	0.5	0.14–0.375	0.71–1.9	—	Goal often not adequate, and higher rates might cause crop injury. Widespread resistance to Sinbar. Usually emerges too late for effective control with Gramoxone. Spartan can be effective.
Nightshade, black ( <i>Solanum nigrum</i> )	—	0.5–1.5	—	—	—	—	—	—	—	—	—	0.5–0.75	0.128	—	0.14–0.375	0.71–1.9	—	Usually emerges too late for effective control with Gramoxone. Residual herbicides or Buctril and Basagran can provide control.
Nightshade, hairy ( <i>Solanum sarrachoides</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	—	—	0.124–0.375	1.0–2.0	—	—	—	0.5–0.75	0.128	—	0.14–0.375	0.71–1.9	—	Usually emerges too late for effective control with Gramoxone. Higher rates of Goal might injure crop. Basagran plus Stinger (0.5 + 0.125 lb ai/A) or Basagran plus Sinbar (0.5 + 0.4 lb ai/A) have been very good in research plots, but weed control might be compromised by rates lower than those labeled.
Nutsedge, yellow ( <i>Cyperus esculentus</i> )	—	—	—	0.8–1.6	—	—	—	—	—	—	—	—	—	—	0.14–0.375	—	—	Repeated applications of Basagran might be effective if applied when temperature is above 70°F.
Pineappleweed ( <i>Maticaria matricarioides</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	—	4.0	0.124–0.375	1.0–2.0	—	—	—	0.5–0.75	—	—	—	—	—	Gramoxone plus Goal effective in late fall. Gramoxone improves control with Direx/Karmex or Sinbar on larger pineappleweed.
Powell amaranth ( <i>Amaranthus powellii</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	0.5–0.75	4.0	—	—	—	—	—	0.5–0.75	0.128	—	0.14–0.375	0.71–1.9	—	Goal usually not persistent enough to provide adequate control, and higher rates often cause crop injury. Sinbar will control nonresistant strains. Gramoxone cannot be used in actively growing mint. Buctril and Basagran may provide fair control of small Powell amaranth.
Prickly lettuce ( <i>Lactuca serriola</i> )	0.25–0.38	—	0.6–2.4	0.8–1.6	—	4.0	0.124–0.375	—	—	—	—	0.5–0.75	0.128	0.5	0.14–0.375	—	—	Gramoxone plus Goal effective. Stinger plus Buctril effective in spring when followed by Sinbar. Gramoxone plus Karmex/Direx or Gramoxone plus Sinbar effective in late fall.
Puncturevine ( <i>Tribulus terrestris</i> )	0.25–0.38	—	—	—	0.5–0.75	—	—	—	—	—	—	0.5–0.75	—	—	—	—	—	Chateau and Sinbar are the most effective preemergence treatments. Buctril can provide some suppression.
Quackgrass ( <i>Elytrigia repens</i> )	—	—	—	0.8–1.6	—	—	—	—	—	0.34–0.0825	0.07–0.24	0.5–0.75	—	0.5	—	—	—	Assure II usually very effective. Gramoxone plus Sinbar often provides fair control.
Rattail fescue ( <i>Vulpia myuros</i> )	—	0.5–1.5	0.6–2.4	0.8–1.6	0.5–0.75	—	—	—	—	—	—	0.5–0.75	—	—	—	—	—	Addition of Gramoxone to Goal, Karmex/Direx, or Sinbar will improve control of emerged rattail fescue.
Red orach ( <i>Atriplex rosea</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	0.5–0.75	4.0	—	—	—	—	—	0.5–0.75	—	—	—	—	—	Goal often not adequate, and higher rates might cause crop injury. Usually emerges too late for effective control with Gramoxone.
Redroot pigweed ( <i>Amaranthus retroflexus</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	0.5–0.75	4.0	—	—	—	—	—	0.5–0.75	0.128	—	0.14–0.375	0.71–1.9	—	Goal usually not persistent enough to provide adequate control, and higher rates often cause crop injury. Sinbar will control nonresistant populations. Gramoxone cannot be used in actively growing mint. Spartan effective.
Russian thistle ( <i>Salsola iberica</i> )	0.25–0.38	0.5–1.5	—	—	—	—	—	—	—	—	—	0.5–0.75	0.128	—	0.14–0.375	0.71–1.9	—	Goal often not adequate; higher rates might injure crop. Spartan effective. Usually emerges too late for effective control with Gramoxone.
Ryegrass, Italian ( <i>Lolium multiflorum</i> )	—	0.5–1.5	0.6–2.4	0.8–1.6	—	—	—	—	0.28–0.47	0.034–0.0825	0.07–0.24	0.5–0.75	—	—	—	—	—	Gramoxone plus Sinbar, Goal, or Karmex/Direx usually is effective on small Italian ryegrass. Herbicide-resistant Italian ryegrass is widespread in western Oregon. Poast, Assure II, Karmex/Direx, and Sinbar often not very effective when used individually.
Salsify, common ( <i>Tragopogon porifolius</i> )	—	0.5–1.5	—	—	—	—	0.124–0.375	1.0–2.0	—	—	—	0.5–0.75	—	—	—	—	—	Gramoxone plus Goal in late fall is effective.
Shepherdspurse ( <i>Capsella bursa-pastoris</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	—	—	—	1.0–2.0	—	—	—	0.5–0.75	0.128	—	—	—	—	Goal, Sinbar, and Karmex/Direx are effective when applied early. Add Gramoxone to residual herbicides if plants are well established.
Sorrel, red ( <i>Rumex acetosella</i> )	—	—	0.6–2.4	0.8–1.6	—	—	0.124–0.375	—	—	—	—	0.5–0.75	—	—	—	—	—	Fall plus spring application of Stinger provides best control. Seedlings controlled with Sinbar or Karmex/Direx plus Gramoxone.
Sowthistle, annual ( <i>Sonchus oleraceus</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	—	4.0	0.124–0.375	—	—	—	—	0.5–0.75	0.128	—	—	—	—	Gramoxone plus Goal, Sinbar, or Karmex/Direx is effective.
Tumble mustard ( <i>Sisymbrium altissimum</i> )	0.25–0.38	0.5–1.5	0.6–2.4	0.8–1.6	—	—	—	—	—	—	—	0.5–0.75	0.128	0.5	—	—	—	Early application of Goal, Karmex/Direx, or Sinbar provides effective control. Add Gramoxone to residual herbicides if rosette is well established.
Witchgrass ( <i>Panicum capillare</i> )	—	—	—	0.8–1.6	0.5–0.75	4.0	—	—	0.28–0.47	0.034–0.0825	0.07–0.24	0.5–0.75	—	—	—	—	—	Usually emerges too late for Gramoxone. Poast, Assure II, and Select Max provide good control.

**Herbicide Notes**  
 Fall applications to established or winter-planted mint are safe. Do not apply more than 6 (6) lb ai/A per growing season. Do not apply more than 5 (5) lb ai/A per growing season. Do not apply more than 10 (10) days of harvest. Some resistance in southern Willamette Valley. Good soil moisture, small weed size important for effective control.  
 In the Willamette Valley, use 0.5 lb ai/A in other areas; use 0.25 to 1.5 lb ai/A. Control is greater when temperature exceeds 60°F. Do not apply more than 6 (6) lb ai/A per growing season. Do not apply more than 10 (10) days of harvest. Some resistance in southern Willamette Valley. Good soil moisture, small weed size important for effective control.  
 Apply during late winter to dormant herbicide or after spring plowing before new growth emerges. Most effective when temperature is above 60°F. Do not apply more than 6 (6) lb ai/A per growing season. Do not apply more than 10 (10) days of harvest. Some resistance in southern Willamette Valley. Good soil moisture, small weed size important for effective control.  
 Apply to dormant, established mint. Must be all-in-one (1 to 2) months in depth. Do not plant suppressants, red clover, or sprays with herbicide application. Do not apply more than 6 (6) lb ai/A per growing season. Do not apply more than 10 (10) days of harvest. Some resistance in southern Willamette Valley. Good soil moisture, small weed size important for effective control.  
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