


Noxious Weeds

Jake Dick
Noxious Weed Program
2/21/22




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Noxious weed management

- Noxious weed definition
- Nevada noxious weed regulations
- Local weeds of concern
- Reporting noxious species


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What is a Noxious Weed?

- What is a Weed?
 - Any plant growing where it is not wanted.




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What is a Noxious Weed?

- What is an Invasive Plant?
 - A non-native plant that easily multiplies and causes multiple negative impacts on the natural ecosystem or landscape.




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What is a Noxious Weed?

- What is a Noxious Weed?
 - An invasive plant that is listed and regulated by state or federal law.
 - Designated by an Agricultural Authority.



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Noxious weed definition

“Any species of plant which is, or is likely to be, detrimental or destructive and difficult to control or eradicate”

(NRS 555.005, 3)

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How Do Plants get listed, State of NV


"A weed must not be designated as noxious which is already introduced and established in the state to such an extent as to make its control or eradication impracticable in the judgement of the State Quarantine Officer" (NRS 555.130)

<small>Kochia, <i>Kochia scoparia</i></small> 	<small>Halogeton, <i>Halogeton glomeratus</i></small> 	<small>Cheatgrass, <i>Bromus tectorum</i></small> 
<small>Russian thistle, <i>Salsola tragus</i></small> 	<small>Foxtail, <i>Hordeum jubatum</i></small> 	<small>Russian Olive, <i>Elaeagnus angustifolia</i></small> 


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Training


- **Noxious weed field guide**
- **Basic identification**
 - NDA is able to help with noxious weed identification
 - Pictures
 - EDDMapS



Nevada Noxious Weed Field Guide



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Yellow starthistle, *Centaurea solstitialis*



Stephen Dewey, USDA Agricultural Research Service, Bugwood.org

Stem: Stiff, wiry, 1-6 ft. tall and usually branched; wing (less than 0.2 in. wide) extend down stem.


Leaves: Blue- to gray-green, 1.5-6 in. long and densely covered with fine hairs. Rosette leaves are oval to strap-like (linear) with deeply lobed edges (margins); stem leaves are alternate, strap-like to oblong with smooth to wavy edges.

Flower: Yellow, located singly at branch tips or axils; base of flower is vase-shaped, 0.5-0.75 in. diameter and covered with cotton-like hairs and stout, straw-colored spines 0.5-1 in long.

Root: Deep tap root

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Yellow starthistle




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Yellow starthistle



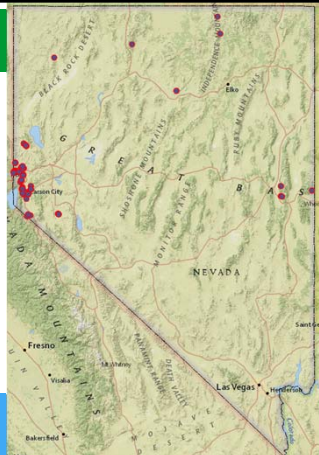

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EDDMaps

Category A noxious weed. Early detection rapid response species. Mostly found in Northern Nevada.



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Medusahead, Identification

Flower: Spike ½ - 2 inches long 3-5 per plant on average. Wavy/twisted seed awns may be up to 3 in. In length. Bright green in color fading to reddish at maturity eventually turning a straw color. Seeds covered with upward pointing barbs which make them rough to the touch.

Leaves: Narrow leaves 4-12 in. Long. Can be covered in short hairs. Auricles and membranous ligule at collar long hairs may also be present.


Stem: Growing up to 2 ft. Tall, multiple stems may grow from the same plant.

Root: Fibrous root system.




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Medusahead, *Taeniatherum caput-medusae*




Long awns with barbed silica scales make seed well suited attaching to animal fur

catchang, iNaturalist



Joseph M. DiTomaso
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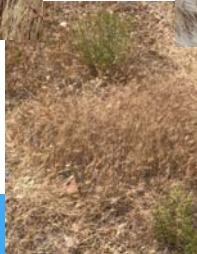
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Medusahead, *Taeniatherum caput-medusae*





Iptrejo, iNaturalist

Iglevanik, iNaturalist


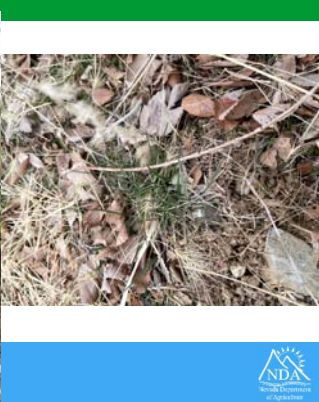



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Medusahead, *Taeniatherum caput-medusae*

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Look-a-likes

Bottlebrush squirreltail



Foxtail




Medusahead



Hare Barley

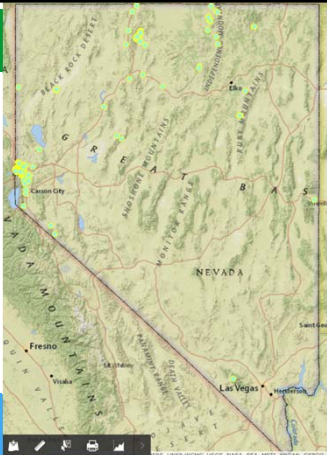
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EDDMaps

Category B weed,
Mostly located in Northern Nevada.
Large infestations in Washoe county and Paradise valley.



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Barbed Goatgrass

Flower: Cylindrical inflorescence red-purple at maturity then drying to straw color, arranged in a spike (1-2.5 in long) containing 2-7 spikelets (.25-.5 in long). 3 long awns (1-2.4 in long) attached to glumes, central awn is longest.

Leaves: Narrow green gray leaves (.5-3 in long) often covered in fine white hair. Auricles present on leaf sheath, membranous ligule.

Stem: Multiple stems branching out at base (7-12 in. tall). Lower stem may contain fine hairs on outer sheath

Root: Fibrous root system, spikelet is often still attached to seedling, helpful in identifying young plants.



Joseph M. DiTomaso
NDA Nevada Department of Agriculture

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Barbed Goatgrass



John M. Randall, invasive.org
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NDA Nevada Department of Agriculture

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Barbed Goatgrass

agrischreus, inaturalist
Aigner, inaturalist
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NDA Nevada Department of Agriculture

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Jointed Goatgrass

Flower: Cylindrical-shaped spike (2-4 in.) with one spikelet per node. Spikelet's arranged alternate and opposite along axis. Spikelet contains 2-5 flowers. Glumes awnless or have 1 awn (1-3 in.). small tooth shaped structures giving them a rough texture.

Leaves: Blue green alternate narrow leaves (2-5 in.), shorter near base and seed heads. Auricle's present at leaf sheaf, fine hairs present on bottom and top of leaf.

Stem: Grows (15-24 in.) multiple stems branching at base. Some isolated plants may produce up to 50 stems.

Root: Fibrous root system, spikelet likely to still be connected to seedling.




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Stevejones, inaturalist
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Jointed Goatgrass

Bruce Ackley, The Ohio State University, Bugwood.org

Steve Dewey, Utah State University, Bugwood.org
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UGA1459185
NDA Nevada Department of Agriculture

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Jointed Goatgrass




USDA APHIS
agri.nv.gov
UGA1149027
NDA Nevada Department of Agriculture

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Reporting noxious species


- **Who is making report**
- **What species you are reporting**
- **Description of infestation**
- **Date/time and location**
- **Images of the plant/infestation**
- **Samples?**

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Reporting noxious species

Helpful for identification




- Flower
- Leaf
- Stem

Not as useful for identification



Difficult to identify

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Reporting noxious weed

NDA
 Jake Dick
 (775) 353-3640
Noxiousweed@agri.nv.gov

EDDMapS phone app



iNaturalist phone app




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Other noxious species

- Perennial pepperweed**
- Poison hemlock**
- Scotch thistle**
- Musk Thistle**
- Diffuse knapweed**

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Perennial pepperweed, Identification


Flower: Small white flowers with 4 petals occurring in dense bunches at stem tips. S

Leaves: Grayish-green rosette with dense hairs, as plant matures alternate leaves develop. Upper leaves are narrow and strap-like 0.5-1.5 in. long, lower leaves 2-4 in. long, oblong with wavy edges.

Stem: Highly branched stiff stem growing up to 3 ft. tall. Covered with gray hairs. Older stems will persist as decedent material.


Root: Deep rhizomatous root system, brown to black in color. Reproduces mainly vegetative via root buds forming dense patches of cloned plants.




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Perennial pepperweed




stigma
peduncle




Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Tim Messick, iNaturalist

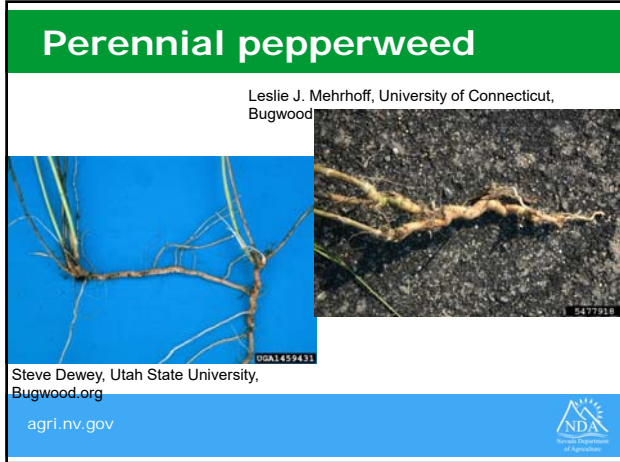
D. Walters and C. Souttwick, Table Grape Weed Disseminute ID, USDA APHIS PPQ, Bugwood.org



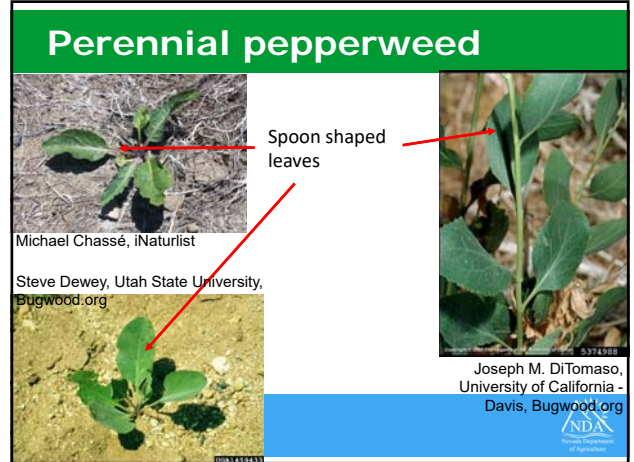
Seedpods

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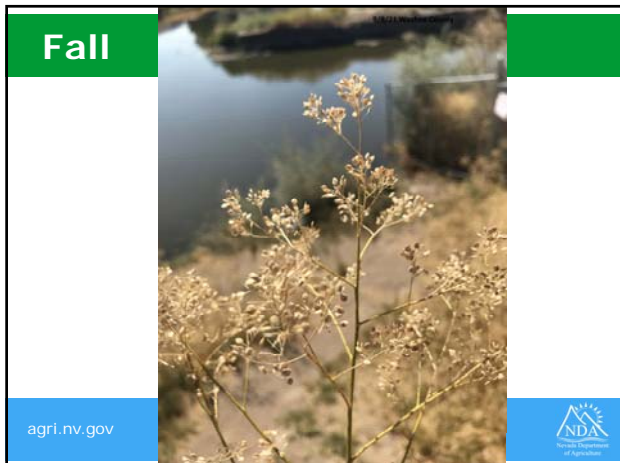
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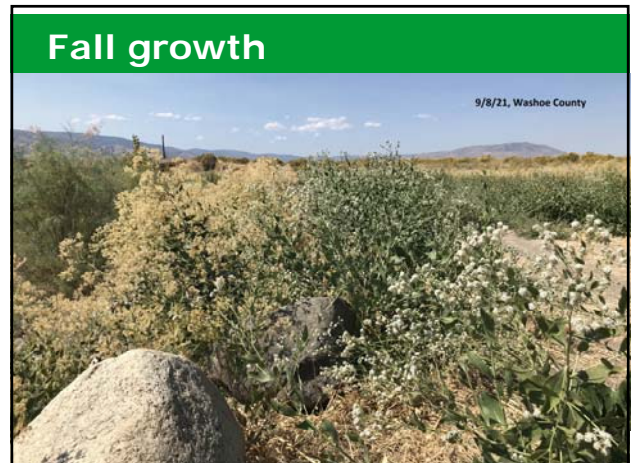
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Poison-hemlock identification

Flower: Small white flowers arranged in umbrella like (umbels) located at the end of the stalk, 4-6 cm wide. Seeds broad and oval shaped with prominent ridges.

Leaves: Triangular fern-like leaves 4-12 in. long, pinnately divided. Leaflets have toothed edge and foliage has a musty odor.

Stem: Growing up to 10 ft. tall this plant usually is 3-8ft in height. Distinct purple spots along the length of the stem. Hollow except at nodes. Multiple branches.

Root: Thick, deep taproot.



Steve Dewey, Utah State University, Bugwood.org

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Poison-hemlock

Ohio State Weed Lab, The Ohio State University,




Paul Rothrock, SEINet



Bruce Ackley, The Ohio State University, Bugwood.org

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Poison-hemlock



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Poison-hemlock




Joanne Johnson

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Scotch thistle, Identification

Flower: Large flowers (1-3 in. in diameter), Purple (sometimes white) located at the tip of stem, spherical in shape with needle like bracts.



Leaves: : 4-20 in. long spiny and covered with fine wooly hairs, gray-green in appearance.

Stem: Plants grow up to 12ft. tall. Prominent spiny wings extend along stem which helps distinguish this plant from other thistle species.

Root: Deep tap root.





Max Licher, SEINet


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Scotch Thistle, *Onopordum acanthium*

Spiny "wings" on stem.



Grey hairs/fuzz on rosettes.

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Musk thistle, Identification

Max Licher, SEINet

Flower: Pink-Purple, flower head often droops or nods, large triangular bracts green-purple spine tipped.

Leaves: 4-15 in. long deeply lobed and spiny with a light green midvein.

Stem: Plants grow 2-6 ft. tall, spiny wings form around leaf bases.

Root: Deep taproot

Bruce Ackley, The Ohio State

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Yurii Basov, iNaturalist

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Musk thistle

Lynn Sosnoskie, University of Georgia, Bugwood.org

- Margins of leaves look "Frosted"
- Light green mid-vein

Lynn Sosnoskie, University of Georgia, Bugwood.org

susanhewitt, iNaturalist

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Musk thistle

Aleksandr Ebel, iNaturalist

dmitrysobodin, iNaturalist

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kildor, iNaturalist

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Diffuse knapweed

Flower: Purple, pink or even white urn/vase shaped flowers. Bracts have lateral spines that have described as comb-like and tipped with a spine. Located at the tips of stems arranged in clusters. Flowers persist on old stems and can aid in identification.

Leaves: Alternate leaves pinnately divided with deep lobes 4-8 in. long. Often covered with dense white hair. Upper leaves are more linear and strap-like.

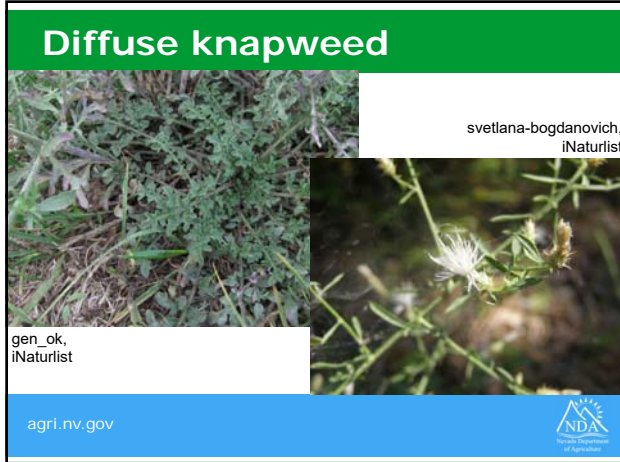
Stem: Highly branched growing up to 2 ft. tall. Rough textured and covered with short stiff hairs.

Root: Deep taproot.

Cindy Roche, Bugwood.org

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