

INVADERS

2022

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Personalized Noxious Weeds Plan for Douglas County Residents

Our goal is to help County residents learn how to identify noxious weeds and control their spread. To do this, Douglas County staff will come to your location and help you develop a noxious weed control plan.

Noxious weed control plans serve to provide a written procedure outlining the most effective way to control noxious weeds on your property without damaging desirable vegetation.

These plans include the identification of each weed, control methods available for treatment, herbicide recommendations, optimum spraying times, and short/long term goals for infestation control.

Residents need to set aside sufficient time to learn what noxious weeds they have and what herbicides are needed to control them.

1. It usually takes about 30 minutes to inspect 5 - 15 acres and write up a management plan. 20 - 35 acres may take up to one hour, depending on the terrain.
2. Livestock should be docile or penned up, and the fields should be open for inspection.
3. Staff will observe the noxious weeds on the property and determine the best herbicide (or other methods) to use for maximum control.
4. The landowner/resident will be given a copy of their individual weed management plan along with appropriate informational brochures and flyers.

What can you do to help control noxious weeds in Douglas County?

What are noxious weeds?

Noxious weeds are aggressive plants that are not native to our area. Most of these weeds came from Europe and Asia as an ornamental plant or field crop. After arriving in the United States, the plants became an undesirable invasive weed that has escaped into cropland, pastures, and open space. These plants have an advantage because the insects, diseases, and animals that would normally control them are not found here. Since these plants have developed specialized mechanisms to survive, they can spread at an alarming rate.



Mission

Douglas County utilizes integrated weed management techniques to combat noxious weed infestations. These techniques include herbicide application, biological control, hand pulling, and re-vegetation that involves the use of grass seed mixtures intended to compete with and suppress noxious weed growth.




To help control noxious weeds

1. Learn to identify the noxious weed species that are invading the area where you live, work, and play.
2. Report the location of all known and suspected noxious weed infestations.
3. Understand the severe negative impact weeds have on the environment and economics of agricultural production.
4. Manage noxious weeds on your property by developing and implementing a weed management control plan.
5. Share your concerns about noxious weeds with your neighbors and friends.
6. Minimize soil disturbing activities on your land and replant with desirable noxious weed free seeds and plants.
7. Use integrated weed management techniques to effectively control noxious weeds.

Educational opportunities

- Public informational meetings
- Noxious Weed Workshop
- Local meetings with HOAs
- Douglas County Fair / Parade
- Free calibration services
- Free noxious weed identification
- Free noxious weed control plan preparation
- Noxious weed educational content

CONTROLLING COMMON NOXIOUS WEEDS WITH HERBICIDES

Dalmatian Toadflax		For best results spray in June or September - October	
	<u>Application</u>	<u>Herbicide</u>	<u>Rate</u>
	Turf	Q4 Plus Weed Free Zone	3 oz. / 2 gal. water / 1,000 sq. ft. 2 oz. / 2 gal. water / 1,000 sq. ft.
	Shallow Water Table or Adjacent to Water	Telar XP Escort XP	1.33 oz. / acre + DuraCor 20 oz. / acre 1.33 oz. / acre + DuraCor 20 oz. / acre
	Landscape	Roundup Super Concentrate	6.4 oz. / 1 gal. water / 1,000 sq. ft.
	Rangeland or Roadsides	Tordon 22K (RUP) + Telar XP	1 qt. + 1 oz. / acre
	Near Most Trees	Telar XP Escort XP Plateau / Panoramic	1.33 oz. / acre + DuraCor 20 oz. / acre 1.33 oz. / acre + DuraCor 20 oz. / acre 10 oz. / acre (for all treatment only)
Canada Thistle		For best results spray in June or September - October	
	<u>Application</u>	<u>Herbicide</u>	<u>Rate</u>
	Turf	Q4 Plus Weed Free Zone	3 oz. / 2 gals. water / 1,000 sq. ft. 2 oz. / 2 gals. water / 1,000 sq. ft.
	Shallow Water Table or Adjacent to Water	Milestone Telar XP + 2,4-D DuraCor	7 oz. / acre. 1.33 oz. + 1 qt. / acre 20 oz. / acre
	Landscape	Roundup Super Concentrate	6.4 oz. / 1 gal. water / 1,000 sq. ft.
	Rangeland or Roadsides	Tordon 22K (RUP) Milestone Telar XP	1.5 pts. / acre 7 oz. / acre 1 oz. / acre
	Near Most Trees	2,4-D Amine + Telar XP	2 qts. / acre. + 1.33 oz /acre
Yellow Toadflax		For best results spray in August - October	
	<u>Application</u>	<u>Herbicide</u>	<u>Rate</u>
	Turf	Manor + Octane	.7 gm. + .25 tsp. / 2 gal. water / 1,000 sq. ft.
	Shallow Water Table or Adjacent to Water	Telar XP Escort XP	1.33 oz. / acre + DuraCor 20 oz. / acre 1.33 oz. / acre + DuraCor 20 oz. / acre
	Landscape	Roundup Super Concentrate	6.4 oz. / 1 gal. water / 1,000 sq. ft.
	Rangeland or Roadsides	Tordon 22K (RUP) Telar XP	1qt. / acre .75 oz. / acre
	Near Most Trees	Telar XP Escort XP	1.33 oz. / acre + DuraCor 20 oz. / acre 1.33 oz. / acre + DuraCor 20 oz. / acre

Leafy Spurge

For best results spray in June or September - October



<u>Application</u>	<u>Herbicide</u>	<u>Rate</u>
Turf	Q4 Plus Weed Free Zone	3 oz. / 2 gal. water / 1,000 sq. ft. 2 oz. / 2 gal. water / 1,000 sq. ft.
Shallow Water Table or Adjacent to Water	Quinclorac	16 oz. / acre
Landscape	Roundup Super Concentrate	6.4 oz. / 1 gal. water / 1,000 sq. ft.
Rangeland or Roadsides	Tordon 22K (RUP) + DuraCor	1 pint + 20 oz. / acre
Near Most Trees	Plateau / Panoramic Plateau or Panoramic + Venue	10 oz. / acre (for fall treatment only) 6 oz. / acre + 1 oz. / acre (for spring treatment only)

Diffuse Knapweed | Musk Thistle | Scotch Thistle

For best results spray
Mid-May - June or September - October



<u>Application</u>	<u>Herbicide</u>	<u>Rate</u>
Turf	Speed Zone Weed Free Zone	1.8 oz. / 2 gal. water / 1,000 sq. ft. 2 oz. / 2 gal. water / 1,000 sq. ft.
Shallow Water Table or Adjacent to Water	DuraCor	16 oz. / acre
Landscape	Roundup Super Concentrate	6.4 oz. / 1 gal. water / 1,000 sq. ft.
Rangeland or Roadsides	Tordon 22K (RUP) 2,4-D LVE	1 pt. / acre 1 qt. / acre
Near Most Trees	DuraCor Curtail	16 oz. / acre 2 qts. / acre

WEEDSTOWATCH FOR IN DOUGLAS COUNTY

Myrtle Spurge

A perennial that is found throughout the front range. It produces seed and plant fragments and can grow 4-8 inches tall and 18 inches wide. May be a potential hazard to children because of its caustic sap that causes blisters.



Purple Loosestrife

A rhizomatous perennial with erect stems, often growing 6-8 feet tall, usually associated with moist land or marsh sites. Leaves are simple, entire, and opposite or whorled. Purple Loosestrife is an introduced European ornamental species that often escapes to aquatic sites such as stream banks or shorelines of shallow ponds.

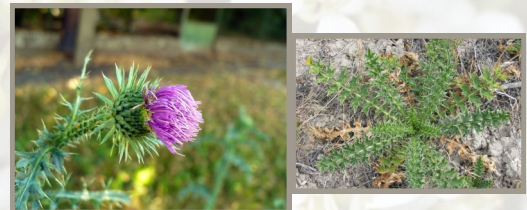


Thistles

Bull Thistle is a biennial plant with a fleshy taproot up to 2 feet long. The stem is 2-6 feet tall, bearing many spreading branches. Leaves in the first year form a rosette. Stem leaves are hairy and prickly on the upper side and cottony underneath.



Plumeless Thistle is a native biennial herb of Eurasia that is found in pastures, streams, valleys, fields, and along roadsides. Flowering occurs from May - July. It has the potential of becoming a widespread noxious weed.



Houndstongue

Houndstongue was first introduced in Europe. This biennial weed is rough, hairy, and lacks teeth or lobes. It forms a rosette the first year and sends up a flowering stalk the second year. It may be found in pastures, along roadsides, and in disturbed habitats.



Teasels

Common Teasel - is a stout, tap rooted biennial that grows up to 7 feet tall. A native of Europe, now widespread as a weed in North America. It is spreading rapidly in the Pacific Northwest in moist sites, especially along irrigation ditches, canals, and disturbed areas. Its leaves are conspicuously veined with stiff prickles on the lower mid-rib. Flowers are purple, borne in dense heads.



Cutleaf Teasel - is a species of flowering plant in the Teasel family. It is native to Europe and Asia and is present in North America as an invasive weed. The erect branching stem is hollow and prickly. This teasel may be distinguished from its relative, common teasel, by its flower color and leaf shape.



Hoary Cress

A deep rooted perennial that grows up to 2 feet tall, reproducing from root segments and seeds. Leaves are blue-green in color and lance shaped. Plants have many white flowers with a flat top appearance.



Salt Cedar

Salt Cedar was introduced from Eurasia and is now widespread in the United States. Its stems are reddish-brown with small pink flowers. Leaves are small and scale-like on highly branched slender stems.



Oxeye Daisy

Oxeye Daisy is a perennial that grows 10 to 24 inches tall and spreads by rhizomes and seeds. Its leaves reduce in size upward on the stem. Basal and lower stem leaves are oblanceolate to narrowly obovate, 2-5 inches long.



HERBICIDE SAFETY

Look for these symbols on the pesticide label to know what safety clothing should be worn when spraying herbicides. The more sides the shape has, the greater the hazard.



DANGER

LD50: less than 500 mg/kg

HIGH TOXICITY

REQUIRES

Goggles
Respirator
Gloves
Skin Protection
Avoid Fumes & mist

WARNING

LD50: 500 - 1,000 mg/kg

MODERATE TOXICITY

REQUIRES

Goggles
Gloves
Skin Protection
Avoid fumes & mist

CAUTION

LD50: 1,000 - 2,500 mg/kg

LOW TOXICITY

REQUIRES

Gloves
Skin Protection
Avoid Fumes & mist

Cost of Herbicides

PRODUCT	COST/UNIT	RATE/ACRE	COST/ACRE
Opensight/Chaparral	\$ 185.90/1.25 lbs.	3.3 ounces	\$ 30.67
Tordon 22K (restricted use)	\$ 85.50/gallon	1 quart	\$ 21.26
Quinclorac 1.5L	\$ 53.00/half gallon	64 ounces	\$ 53.00
DuraCor	\$ 99.252/gallon	20 ounces	\$ 15.51
Milestone	\$ 86.00/quart	7 fluid ounces	\$ 18.81
2,4-D Amine	\$ 43.10/gallon	2 quarts	\$ 21.55
Panoramic	\$ 70/quart	10 fluid ounces	\$ 21.90
Telar-Generic	\$ 169.95/8 ounces	1.33 ounces	\$ 28.25
Dicamba + 2,4-D	\$ 135.35/2.5 gallons	2 quarts	\$ 13.54
Q4 Plus	\$ 143.51/gallon	1 gallon	\$ 143.51
Escort-Generic	\$ 48.45/16 ounces	1 ounce	\$ 3.15
Speedzone	\$ 40.99/20 ounces	2 quarts	\$ 131.20
WeedfreeZone	\$ 38.50/quart	2 quarts	\$ 77.00

For more information on noxious weeds, please visit: douglas.co.us
or contact us at 303-660-7480

SUGGESTED TREATMENT CALENDAR

January

S	M	T	W	T	F	S
						1
2						
9						
16						
23						
30						

February

S	M	T	W	T	F	S
		1	2	3	4	5

March

S	M	T	W	T	F	S
		1	2	3	4	5

PRE-EMERGENT TREATMENT FOR:							
		APRIL		SEPTEMBER		OCTOBER	
	CHEAT GRASS			7 OZS. MILESTONE		7 OZS. MILESTONE	
	THISTLES	1.3 OZS. TELAR					

April

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	MYRTLE SPURGE					
15	HOARY CRESS					
22	BULL THISTLE	HOUNDSTONGUE				
29	LEAFY SPURGE	COMMON TEASEL				
	CUTLEAF TEASEL	SCOTCH THISTLE				
	MUSK THISTLE	DIFFUSE KNAPWEED				
	PLUMELESS THISTLE					

June

S	M	T	W	T	F	S
			1	2	3	4
5	CANADA THISTLE		DALMATION TOADFLAX			
12						
19	BULL THISTLE	HOUNDSTONGUE				
26	LEAFY SPURGE	COMMON TEASEL				
	CUTLEAF TEASEL	SCOTCH THISTLE				
	MUSK THISTLE	DIFFUSE KNAPWEED				
	PLUMELESS THISTLE					

July

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	OXEYE DAISY					
31						

August

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21						
28	PURPLE LOOSESTRIFE					
	YELLOW TOADFLAX					

September

S	M	T	W	T	F	S
				1	2	3
4	YELLOW TOADFLAX					
	HOARY CRESS					
11	PURPLE LOOSESTRIFE					
18	CANADA THISTLE		DALMATION TOADFLAX			
25	BULL THISTLE	HOUNDSTONGUE				
	LEAFY SPURGE	COMMON TEASEL				
	CUTLEAF TEASEL	SCOTCH THISTLE				
	MUSK THISTLE	DIFFUSE KNAPWEED				
	PLUMELESS THISTLE					

October

S	M	T	W	T	F	S
						1
2	YELLOW TOADFLAX					
9	HOARY CRESS					
16	CANADA THISTLE		DALMATION TOADFLAX			
23	BULL THISTLE	HOUNDSTONGUE				
30	LEAFY SPURGE	COMMON TEASEL				
	CUTLEAF TEASEL	SCOTCH THISTLE				
	MUSK THISTLE	DIFFUSE KNAPWEED				
	PLUMELESS THISTLE	*DOWNY BROME*				

November

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Free Sprayer Calibration for Douglas County Residents

Steps To Follow For Proper Calibration:

1. Before a weed control staff member arrives, make sure your sprayer has been properly assembled and ready to operate.
2. Wear the appropriate personal protective equipment such as shoes and socks, long sleeve shirt, long pants, chemical resistant gloves, and eye protection.
3. Set aside one hour to observe the calibration process.
4. Have your sprayer half filled with water.
5. Have the battery, pto, or pump engine hooked up and ready to run.
6. The sprayer must have a pressure gauge with adjustable bypass flow capability.
7. Test run the sprayer for 30 seconds to ensure it's operational.
8. Observe the weed control staff testing the flow with the meter and plugging the numbers into the TeeJet software.
9. Understand the amount of the prescribed herbicide required per tank load of water/ herbicide mix.
10. Know which herbicide to use and the proper timing for spraying each noxious weed.

No matter what size of tank you are using, your sprayer must be calibrated to achieve optimum noxious weed control. Many of the newer herbicides can kill grass if over applied. To be properly calibrated, the speed of the vehicle must be consistent, tip sizes and spacing set properly, and pressure settings adjusted correctly. Even small hand sprayers need to be calibrated.

For more information, contact us at 303-660-7480

Noxious Weed Management on County Roads and Open Space

Program Information

Each year, Douglas County employees spray County roadsides to control noxious weeds. Employees spray and treat approximately 760 miles of road rights-of-way. County crews treat approximately 17,000 acres of open space land and 300+ small open space parcels. These parcels consist of open space land dedicated for future schools, neighborhood parks, and other purposes. The parcels vary in size from .2 acre to 60 acre tracts located around the county.



Over the years, we have achieved enough success in controlling noxious weeds on County roadways that our primary mission has changed to seeking out new infestations as they occur.

Occasionally, plants manage to survive near fences close to property lines, on land that is difficult to access, or at locations where new infestations suddenly appear from seed. Canada thistle and yellow toadflax bloom late in the season and are not always visible when spraying operations begin, so multiple applications are required.

Continued vigilance will be required indefinitely to successfully gain control over noxious weed infestations. The County has achieved great success over the years. As a result of programs started in mid-1990, there are very few noxious weed infestations on county rights-of-way.

To aid in our mission, Douglas County employs five certified pesticide supervisors/applicators to inspect and treat noxious weeds with the following equipment:

- 1,850 gallon and 725 gallon sprayers are used to treat roadsides
- A 75 gallon all-terrain sprayer and several backpack sprayers are utilized in off-road areas
- A tractor with a 1,000 gallon trailer mounted sprayer is used to treat large open space parcels
- 500, 300, and 200 gallon truck mounted sprayers are used to spot spray roadways and open space areas

INVADERS

A treatment guide for noxious weeds in Douglas County