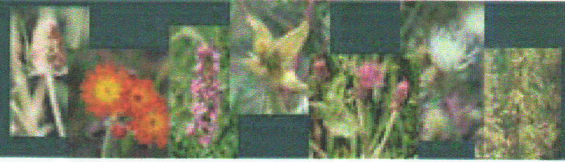




# Weed & Pest

## Noxious Weed Information Series



### Noxious Weeds - What You Should Know

It is important to manage noxious weeds. Noxious weeds are plants not native to our area. They aggressively take over natural and agricultural lands; impacting both economic and natural values. They out-compete native plants and cause a reduction in wildlife habitat.

Colorado has a Noxious Weed Law (CRS 35-5.5 et al.) that requires landowners to control noxious weeds.

The best methods for management depend on the specific type of weed and the time of year they need to be treated. Most noxious weeds found in our area respond well to fall and spring treatments using integrated methods. Integrated management includes different methods of control such as physical pulling of the whole plant, clipping of the seed head, and application of herbicide. Please visit our website at <http://weeds.jeffco.us> to view our Fact Sheets which will assist you in developing a management plan for your property.

### What To Do

#### Control

- Be aware of what is growing on your property and manage all noxious weeds when you find them. If you notice new weeds moving into an area you should react quickly to manage them before they reproduce.
- The law establishes a prioritized list (A, B and C) that designates required levels of management. What the weed is and where it grows within the state determines if it is required to be eradicated, suppressed or contained.
  - Eradication is the most intense level of control resulting in the complete elimination of a plant. This needs to be done before the plants drop their seeds or spread by their roots. Within Jefferson County we have a number of noxious weeds that require this level of intense control. Please visit our website at <http://weeds.jeffco.us> for a complete list of the noxious weeds in Jefferson County. List A.
  - Suppression applies to the majority of the noxious weeds within Jefferson County. Suppression means "reducing the vigor of noxious weed populations within an infested region, decreasing the propensity of noxious weed species to spread to surrounding lands, and mitigating the negative effects of noxious weed populations on infested lands." List B and recommended for List C.
  - Containment means there are certain areas where eradication is the requirement within certain designated areas and suppression in the remaining areas. List B-erad.

#### Prevent

- Many noxious weeds take advantage of disturbed sites. By maintaining good ground cover and managing the health of your land, you may be able to prevent noxious weeds from becoming established.
- Be careful when importing soil, mulch, hay and straw because these are known carriers of weed seeds and fragments which can quickly grow and take over an area.
- Work to educate your neighbors.

### What happens if a landowner does not control their weeds?

Failure to control noxious weeds may result in the county taking enforcement action. For example the county may directly manage the noxious weeds on your property at your expense.

### Contact Information

Jefferson County Weed & Pest 303-271-5989  
Website: <http://weeds.jeffco.us> email: [adoran@jeffco.us](mailto:adoran@jeffco.us)

### Other Contacts

State Highway Rights-of-Way - CDOT 303-512-5506  
County Rights-of-Way - Jefferson County Road and Bridge 303-271-5219  
Tall weeds in urban areas (unincorporated) - Jefferson County Planning and Zoning 303-271-8753



				
Chamomile B-erad	Ox-eye daisy B erad/sup	Hoary cress B	Field bindweed C	Chicory C
				
Cheatgrass C	Russian olive B	Common mullein C	Teasel B	Chinese clematis B-erad
				
Dyers woad A	Yellow starthistle A	Dalmatian toadflax B	Yellow toadflax B	Sulfur cinquefoil B
				
Leafy spurge B	Myrtle spurge A	Orange hawkweed A	Dames rocket B	Houndstongue B
				
Bull thistle B-erad	Canada thistle B	Musk thistle B	Plumeless thistle B-erad	Scotch thistle B
				
Diffuse knapweed B-erad/sup	Russian knapweed B-erad	Spotted knapweed B-erad	Purple loosestrife A	Tamarisk B-erad



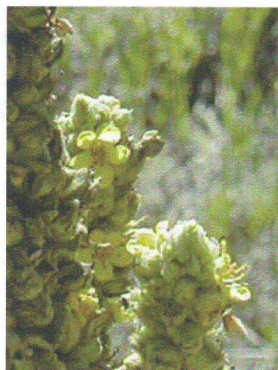


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## Common Mullein (*Verbascum thapsus*)



Common Mullein	
General	Family: Scrophulariaceae (Figwort) Biennial Introduced from Europe Colorado List C
Common names	Wooly mullein
Habitat	Found in rangeland, pastures, open areas, disturbed sites, roadsides
PLANT	
Vegetation	Mature plants up to 8 feet tall Leaves oblong, blue-green, hairy, up to 5 inches wide and 12 inches long. Leaves get smaller as they grow up the flower stalk.
Roots	Taproot and fibrous secondary roots
Flower	Color: Yellow Season: June-Sept. Size: about 1 inch wide. Tightly grouped flowers at the end of a stalk up to 6 feet tall
Seed	Up to 180,000 seeds per plant. Seeds last up to 100 years in the soil
Seedling	Rosette
Reproduction	Seed
CONTROL	
BIOLOGICAL	Seed weevil ( <i>Gymnetron tetrum</i> )



CONTROL			
CHEMICAL	Milestone	7 oz./acre	Spring rosette to pre-bud stage and/or fall rosette
	Tordon 22K ( <i>restricted use</i> ) plus 2,4 D	1-1 ½ pints/acre plus 1 qt/acre	Spring rosette to pre-bud stage and/or fall rosette
	Telar XP	1-3 oz/acre	Rosette to early bolt stage
	Roundup	2-3 qts/acre	When plants are actively growing
CULTURAL	Prevention. Revegetation of highly disturbed sites Removal - flower and seed stalks should be bagged and disposed of		
MECHANICAL			
Burning	Not recommended. Fire encourages Common mullein to germinate		
Grazing	Not recommended. Most animals will not feed on Common mullein		
Mowing	Not recommended. Plants will re-grow and set seed		

*Use all chemicals according to the manufacturer's label.*

*No specific recommendation or endorsement is made or implied by listing the above methods or products.*





## Spring Ranch Weeds

### 3 Groups: Biennials, Perennials, Annuals

Biennials: primary control method is to remove seed

First on our list is Mullein!! Last year bad, this year worse. Terrible in Spring Ranch. It propagates from seed to form a rosette in the first year which then produces a stalk the second year. The 2<sup>nd</sup> year plant bolts in late spring resulting in yellow flowers and seed production (thousands). The stalk is several feet tall. The plant then dies leaving the dead stalk which may persist for years. Seeds are viable for decades.

Control- mechanical i.e. cut off rosettes and 2<sup>nd</sup> year plants below ground before they bolt. After bolting cut off the seed head and bag.

Mullein is also susceptible to many herbicides but not 2,4 D. Mowing is not effective as the plant will send up a second stalk with seed heads.

Some other biennials are musk thistle and diffuse knapweed.

Perennials: primary control is "root starvation" plus reduction of seed production.

Our examples are Dalmatian toadflax, Canadian thistle, and hoary cress (white top). These weeds propagate by seeds but also by asexual vertical shoots from underground roots.

The concept of "root starvation" is based on destruction of the above ground foliage of the plant. This process interrupts photosynthesis that supplies the roots with carbohydrates. The foliage grows back but with less vigor. The plant is also more vulnerable to control measures when carbohydrates are depleted. This approach is effective but requires years of repeated treatments to effect control. This approach also prevents seed production if carried out early in the season.

The foliage of Canadian thistle and hoary cress is highly sensitive to and suppressed by auxins (congeners of plant growth hormones e.g. 2,4 D). Toadflax, however, requires suppression with a variant of 2,4 D (Tordon) or glyphosate (Roundup). The latter inhibits formation of amino acids e.g. tryptophan and phenylalanine and is lethal to this plant and others.

Annuals: primary control is difficult.

Our main example is cheat grass (downy brome). This grass has the biological advantage of extensive seed production. Seed formed in the fall germinates in the spring much earlier than other grasses out-competing

them for moisture etc. Aside from the seeds getting in your socks and your dog's mouth and nose, this plant has become a major fire hazard in the American west.

Control by mowing frequently several times a season to reduce seed production is suggested to be effective but this is unproven. Mowing however does decrease biomass so that the fire hazard is minimized.

Chemical control by late fall treatment to prevent spring germination and seed production will eradicate the grass but must be followed with establishment of competing grasses. Re-seeding is problematical with our inconsistent rain. What appears to be the most effective herbicide, Plateau, acts by inhibiting the synthesis of amino acids (leucine, isoleucine, valine ie branched amino acids) that are essential for plant survival. Glyphosate (Roundup) is also effective.

#### Issues with Herbicides

Phenoxy acetic acid (2,4 D) was developed in the 40's. There has been no evidence found by the EPA or by other agencies that it is carcinogenic. The concern about Agent Orange was that the preparation was contaminated with dioxin, a known carcinogen. Current assays for dioxin are very sensitive and contemporary preparations are not contaminated. 2,4 D is tightly bound to soil particles and has a short half-life in soil and therefore has not been identified as a ground water contaminant. Tordon is less tightly bound but is only a risk to ground water in sandy soil with a shallow water table (not the usual condition in Spring Ranch). According to the WHO there has been no contamination by 2,4 D of drinking water after 40 years of observation in the absence of large spills.

George Betz Lot # 45. 303-526-7309