

# 2018 Sublette County Weed & Pest District Newsletter



Stop Invasive Species In Your Tracks!

[PlayCleanGo.org](http://PlayCleanGo.org)





# WANTED

## Rush Skeletonweed



Rush skeletonweed is a perennial that reproduces by seed and an extensive root system. The wiry stems of the plant can grow from 1 to 4 feet tall. The flowers are bright yellow and less than one inch wide. The leaves are mostly at the base of the plant. Rosettes resemble those of a dandelion (sharply toothed). Downward-pointing brown hairs cover the lower 4-6" of stem; the upper stem is smooth and hairless. Both the stem and leaves produce a milky latex sap. Habitats include disturbed roadsides, semiarid pastures and rangelands.

**REWARD - \$100**



Upon finding a suspected new invader: photograph a specimen and the infestation, record a GPS point and collect a sample and press or otherwise preserve for identification.





# WYOMING WEED & PEST CONTROL ACT DESIGNATED LIST

- Field bindweed (*Convolvulus arvensis* L.)
- Perennial sowthistle (*Sonchus arvensis* L.)
- Hoary cress (whitetop) (*Cardaria draba* & *Cardaria pubescens* (L.) Desv.)
- Ox-eye daisy (*Leucanthemum vulgare* L.)
- Russian knapweed (*Centaurea repens* L.)
- Dalmatian toadflax (*Linaria dalmatica* (L.) Mill.)
- Musk thistle (*Carduus nutans* L.)
- Plumeless thistle (*Carduus acanthoides* L.)
- Houndstongue (*Cynoglossum officinale* L.)
- Diffuse knapweed (*Centaurea diffusa* Lam.)
- Saltcedar (*Tamarix* spp.)
- Common tansy (*Tanacetum vulgare* L.)
- Black henbane (*Hyoscyamus niger* L.)
- Yellow starthistle (*Centaurea solstitialis* L.)
- Common Mullein (*Verbascum thapsus* L.)
- Leafy spurge (*Euphorbia esula* L.)
- Quackgrass (*Agropyron repens* (L.) Beauv)
- Perennial pepperweed (giant whitetop) (*Lepidium latifolium* L.)
- Skeletonleaf bursage (*Franseria discolor* Nutt.)
- Yellow toadflax (*Linaria vulgaris* L.)
- Scotch thistle (*Onopordum acanthium* L.)
- Common burdock (*Arctium minus* (Hill) Bernh.)
- Dyers woad (*Isatis tinctoria* L.)
- Spotted knapweed (*Centaurea maculosa* Lam.)
- Purple loosestrife (*Lythrum salicaria* L.)
- Common St. Johnswort (*Hypericum perforatum* L.)
- Russian olive (*Elaeagnus angustifolia* L.)
- Ventenata (*Ventenata dubia* (Leers) Coss)
- Medusahead (*Taeniatherum caput-medusae* L.)
- Canada thistle (*Cirsium arvense* L.)

## DESIGNATED PESTS W.S. 11-5-102 (a)(xii)

- Grasshoppers
- Mormon Crickets
- Prairie dogs
- Ground squirrels
- Mountain pine beetle
- Beet leafhopper

## SUBLETTE COUNTY DECLARED LIST W.S.S. 11-5-102 (a)(xii)

- Scentless chamomile (*Matricaria perforata* Merat)
- Field scabious (*Knautia arvensis* L.)
- Cheatgrass (*Bromus tectorum* L.)
- Western water hemlock (*Cicuta douglasii* DC.)
- Austrian fieldcress (*Rorippa austriaca* Crantz)
- Hoary alyssum (*Berteroa incana* (L.) DC.)

## NOXIOUS WEED COST SHARE PROGRAM

### PESTICIDE COST SHARE

- 75% of pesticide covered when purchasing through SCWP
- Cap \$3,000 per person

### LABOR COST SHARE

- 35% of contracted labor to be covered by SCWP
- Must contact SCWP before project
- Turn in application record and proof of payment
- Cap at \$10,000 per person

## SERVICES

**Need a Plant or Pest Identified?** Please bring your insect samples (in sealed container), plant damage or plants to SCWP for identification. Contact us and we can come to your property and consult at no charge.

**Sprayers:** Sublette County Weed & Pest loans out backpack, ATV sprayers, slide-in and hand sprayers to residents or property owners of Sublette County. We can also help you calibrate your sprayer for optimal weed control.

**Landowner Permission Form:** SCWP is required by law to obtain landowner permission to conduct Weed & Pest services on private property. These permission forms are on our website at [sublettecountyweed.com](http://sublettecountyweed.com) or at the SCWP office. For more information please call 307-367-4728. Thanks to all the landowners that have already turned the forms in.



# Common Mullein

*VERBASCUM THAPSUS L.*

Common Mullein is a native to Asia, that was introduced to Europe and then to North America. It is mostly found along river bottoms, pastures, meadows, fence rows and water areas. This plant produces a large number of seeds which makes it hard to control. Livestock will not eat this plant because of the woolliness.



**Stems:** Thick rosettes of fuzzy leaves are seen the first year and a single stout erect stem can reach 2-6 ft. tall the second year.

**Leaves:** Alternate and overlapping one another, light green with dense hairs.

**Flowers:** Form long terminal spikes, sulfur yellow in color, 5 petalled and more than an inch in diameter.

**Seeds:** Fruits are 2 chambered with numerous, small, angular, brownish seeds that are 1/32 inches long.

**Control Method:** Herbicides that are labeled for Common Mullein include 2,4-D, Telar, Tordon and Escort. A surfactant is recommended because of the dense hair. There is a biological control agent available. Mechanical method: chop the root off below ground with minimal soil disturbance.

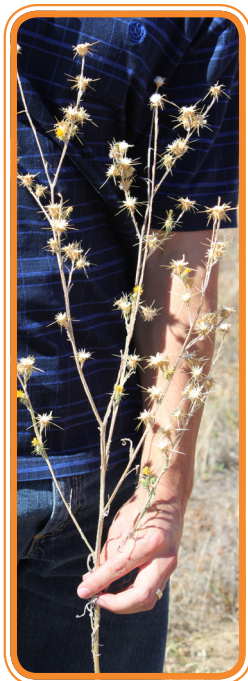




# Yellow Starthistle

*CENTAURAEA SOLSTITIALIS L.*

Yellow Starthistle is an annual, introduced from Europe. It grows in various types of soil and usually found along roadsides and waste areas. This plant will cause "chewing disease" in horses if eaten. Thorned bracts protect the flower from grazers and make infestations difficult to walk through.



**Stems:** Can grow up to 2-3 ft tall, has rigid branching, winged stems covered with cottony pubescence.

**Leaves:** Basal leaves are deeply lobed, while the upper leaves are entire and sharp pointed.

**Flowers:** Yellow, located singly on ends of branches and armed with sharp straw colored thorns that are up to 3/4 long.

**Seeds:** Fruits from ray flowers are dark colored without bristles, while fruits from disk flowers are light and have a tuft of white bristles.

**Control Methods:** Herbicides that are labeled for yellow starthistle include Milestone and Tordon. Small infestation may be pulled. There is also a biological control agent available.





# Medusahead

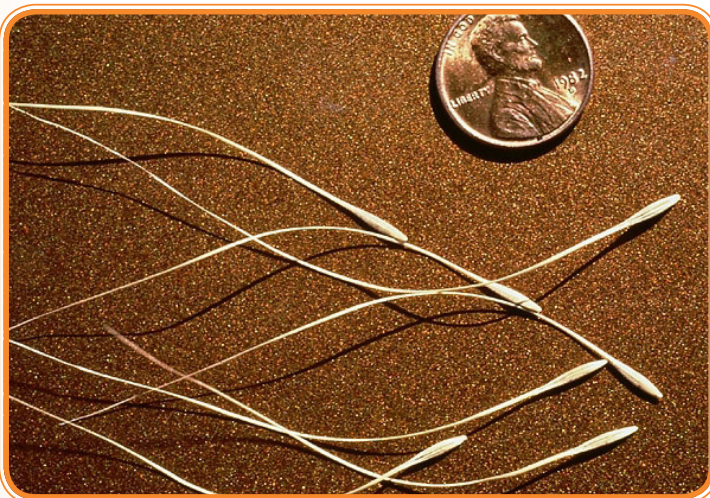
*TAENIATHERUM CAPUT-MEDUSAE*

**Medusahead** is an aggressive winter annual grass that was introduced to the U.S. from the Eurasia. It has infested millions of acres of semi-arid rangelands in the West. Medusahead can be confused with foxtail barley or bottlebrush squirreltail, but does not turn red or purple at maturity. Medusahead is an extremely competitive annual grass that can get up to 24 inches tall.

Leaves blades are rolled generally 1/8 inch wide or less. The sheaths are open and slightly hairy. Long inflorescence awned spikes nearly as wide as it is long. Mature awns are 1-4 inches long, stiff and barbed and twist at maturity.

Flowering and seed formation occur in May and June. The spike does not break apart as seeds mature. Awned florets fall away and leave a bristly head made up of awn like glumes that will remain over winter.

Medusahead was recently found in Sheridan County, Wyoming.





# Ventenata

## *VENTENATA DUBIA*

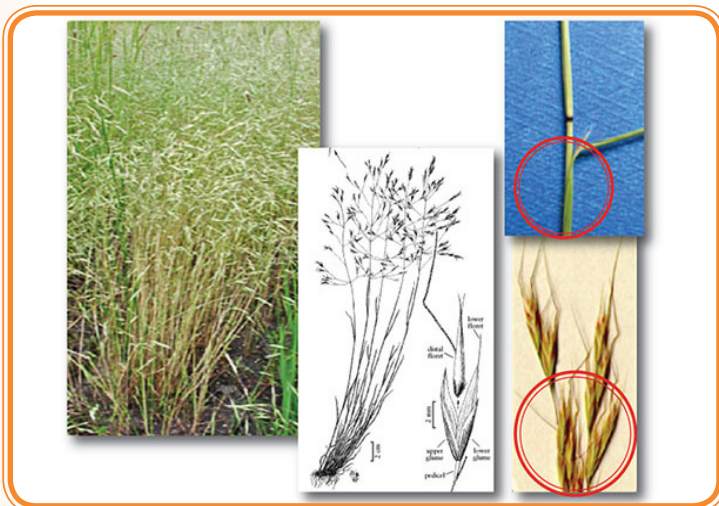
**Ventenata** is an annual grass that was introduced from Eurasia. It is also commonly referred to as North Africa grass. It is found in grain crops, hay fields, rangeland, and disturbed sites. Ventenata can reduce hay crop yields by 50% in just a few years. It has shallow roots which can lead to increased soil erosion. It forms dense monocultures and dries early in the season, which can increase fuel and fire danger.



Ventenata is often confused with cheatgrass also called downy brome (*Bromus tectorum*), which has similar habitat. The lowest floret has awns that are  $\frac{3}{16}$  inches long, sharp pointed and straight. The awns on the upper floret are  $\frac{3}{8}$  to 1 inches long and are bent and twisted.

Leaves are rolled lengthways or folded and are narrow  $\frac{3}{4}$  - 2  $\frac{3}{4}$  inches long with open sheaths. Stem nodes are reddish black. It's unusually long ligule (1-8 mm) is another distinguishing characteristic. By late June - July the plant adopts a shiny appearance and an open panicle emerges. Due to high silica content cattle will not graze it once the inflorescence or flowers emerge. Once the plant dies in July - August, the awns (1 – 2.5 mm in length) become twisted and bent.

As an annual, Ventenata spreads by seed. It can produce as many as 35 seeds per plant. Seeds persist in the seedbank for only a couple of years. Ventenata was found in Northeastern Wyoming in 2016.





# \*Calibration\*

1/128 Method

## **HAND SPRAYERS & HIGH PRESSURE HANDGUNS**

One gallon = 128 ounces

Area to be sprayed is 1/128 acre

Ounces collected = gallons per acre (GPA)

Step 1:

Measure out an area 340 square feet (1/128 acre), which is 18.5 ft x 18.5 ft

Step 2:

With water in the tank, record in seconds the time it takes to spray the measured area.

Repeat this step a few times and calculate an average time.

Step 3:

Spray into a container or bucket for the same amount of time recorded to spray the area in step 2.

The amount of water in ounces collected from the container equals the gallons per acre (GPA) the sprayer is putting out.

If the recommended rate of an herbicide is 32 ounces per acre, and the sprayer is putting out 40 GPA, then you would need to add 32 ounces of herbicide to 40 gallons of water.

Since there are no 40 gallon backpack units, you will need to divide 32 by 40 to find out that you need to add 0.8 ounces of herbicide to 1 gallon of water.

## **BOOMLESS SPRAYERS**

For nozzle types including Boombuster, Boominator, Boomjet

Step 1:

With water in the tank, begin spraying with the nozzle or nozzles that will be used.

Measure the length of the spray pattern in inches.

Step 2:

Spray into a container or bucket for 1 minute with the nozzle(s) that will be used.

Measure the amount of water in the container in fluid ounces. This is the ounces per minute that the sprayer is putting out. To get gallons per minute (GPM), divide the ounces per minute by 128.

Step 3:

Select the speed in miles per hour (MPH) that will be used for spraying.

Step 4:

Use one of the formulas to determine the gallons per acre that will be applied by the sprayer

Gallons per acre (GPA) =  $\frac{5940 \times \text{gallons per minute (GPM)}}{\text{MPH} \times \text{spray pattern length (inches)}}$  or GPA =  $\frac{46.4 \times \text{ounces per minute}}{\text{MPH} \times \text{spray pattern length (inches)}}$

If the nozzle spray pattern was 18.5 feet (222 inches), the amount collected from the container after 1 minute was 480 ounces (3.75 gallons), and the speed that will be used for spraying is 5 miles per hour,

$$\frac{5940 \times 3.75 \text{ gpm}}{5 \text{ mph} \times 222 \text{ inches}} = 20 \text{ GPA}$$

$$\frac{46.4 \times 480 \text{ ounces/min}}{5 \text{ mph} \times 222 \text{ inches}} = 20 \text{ GPA}$$

$$5 \text{ mph} \times 222 \text{ inches}$$

or

$$5 \text{ mph} \times 222 \text{ inches}$$

The sprayer is putting out 20 gallons per acre. If the recommended rate of an herbicide is 32 ounces per acre, and the sprayer is putting out 20 GPA, then you would need to add 32 ounces of herbicide to 20 gallons of water.



# \* Poplar Budgall Mite \*

The poplar budgall mite is a microscopic ornamental pest found in Sublette County. Various species of poplars (cottonwood) trees are hosts to this mite. It significantly infests the hybrid lanceleaf cottonwood. It prevents leaf buds from developing into normal leaves and stems. It produces galls near the ends of new growth that are wrinkled, irregular, lumpy, solid masses of plant tissue. Young galls are greenish, but older galls are red to brown. Galls from previous years are gray-black. Lower branches are usually more heavily infested and may become crooked or stunted.

## *Management:*

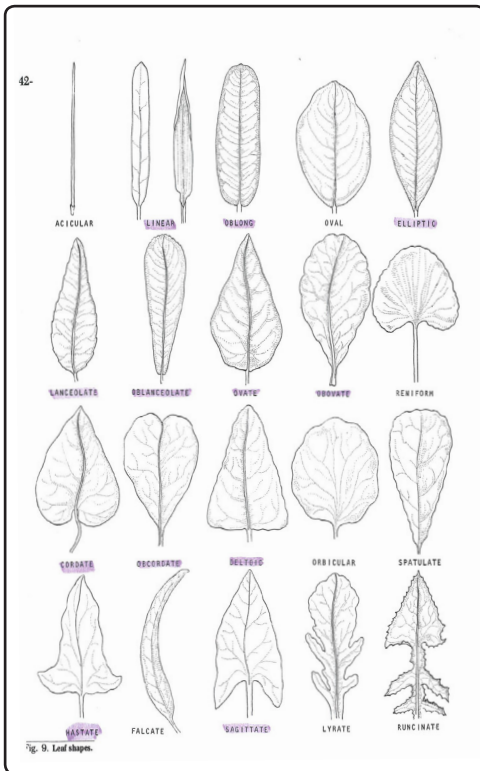
- Poplar budgall mites usually do not cause serious injury. Although unsightly, large populations of budgalls can be tolerated by healthy trees. However, infestations may cause stress in the tree and make it more prone to other problems. The gall masses can break off branches in wind storms and this can cause damage to the trees. It also allows for the cytophora fungus to attack the tree.
- Pruning is an option, on small or newly infested trees. Infected twigs can be pruned off to eliminate adult mites and remove unattractive tissues. Dispose of infested tissues. Trees should be pruned in early spring when the tree is dormant, and the mites are overwintering. It is very important to sanitize your pruning equipment. Spray or dip your pruners in at least 10% bleach solution. If you prune, a healthy tree will then develop secondary buds and can form new leaves. Pruning alone is not a complete control, mites can re-infest the new buds in the future. For more heavily infested trees pruning may not be a viable option.
- Licensed applicators can apply a systemic pesticide to your trees. This has been known to help but will be annual maintenance. If hiring an applicator, please ask to see their commercial applicators license and ask if they are insured. Dormant oils have been used to help reduce budgalls. Timing is important, and as the name implies, dormant oils need to be applied while trees are dormant.

There is no silver bullet control for the budgall mite. Once they have produced a gall in your tree, the gall persists. SCWP recommends planting species that are not susceptible to this mite. Plains cottonwood (*Populus deltoides*) or narrowleaf cottonwood (*Populus angustifolia*) or aspen, or crab apples are good options. We understand how hard it is to keep a tree alive in Sublette County and encourage regular watering and fertilization of all ornamental trees. The healthier the tree the more it is able to defend itself against mites and other tree pests.

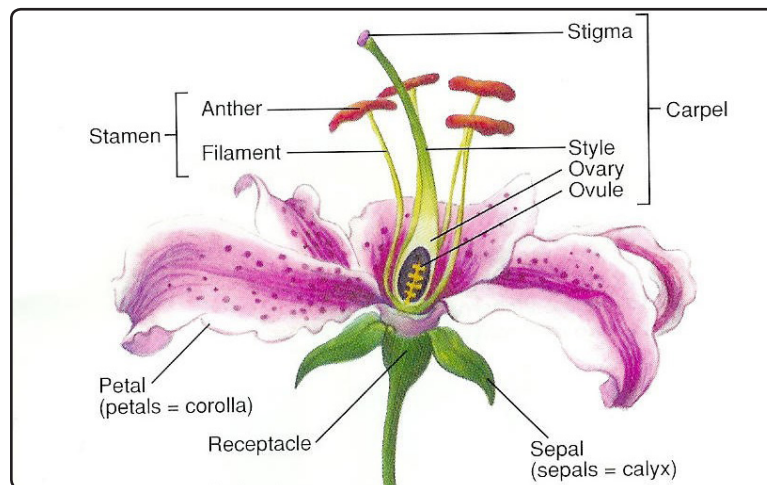
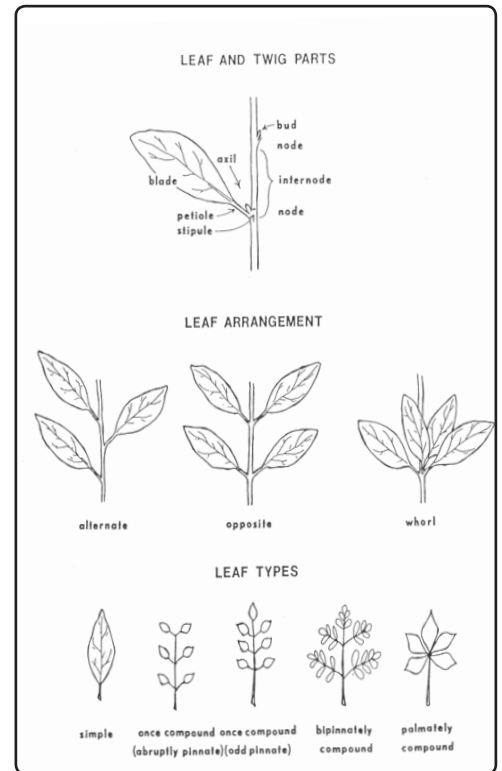




# Plant Identification



1. What color and how many petals does the flower have? This allows us to narrow the plant down into a plant family.
2. How many stamens? These are appendages holding the pollen.
3. Is it a perennial, biennial or annual? We can usually decide this based on if you can pull the plant out of the ground. Assuming soft or moist soil.
4. What shape are the leaves and is the outside edge smooth or serrated?
5. How are the leaves arranged?



These five questions can really help narrow down what plant you may have. There are many online tools to help with identification. Our website at [Sublettecountyweed.com](http://Sublettecountyweed.com) has numerous noxious weed photos for you to reference as does [wyoweed.com](http://wyoweed.com), the Wyoming Weed and Pest Council website. These are great tools to identify noxious and invasive weeds in Sublette County. If you are just curious about plant identification, we recommend the Wyoming Wildflower app. This app asks the same questions as above and allows you to select the area, elevation, or habitat type that you are at. Narrowing the potential list of plants down with each question answered. Then you can scroll through the options to find the specific plant. We are happy to come to your property and look or you can drop a sample off at the office for identification. Once the weed has been identified then we can help you develop a management plan.



# Know Your Foe



Diffused Knapweed  
(Annual)



Houndstongue  
(Biennial)



Pepperweed  
(Perennial)

Successful weed control like many things requires planning and strategy. There are three major groups of weeds; Annuals, Biennials and Perennials.

- **Annuals**- germinate, grow, produce seed and die all in one year.
- **Biennials**-require two years to complete their life cycle. These plants develop from seed and usually form a leafy rosette but do not flower until the second year. The second year they will flower, produce seed and die.
- **Perennials**- live three years or longer. They reproduce from seed and by underground or above ground roots.

There are four control methods in dealing with plants; Cultural, Mechanical, Biological and Chemical.

- **Cultural**- using desirable species to compete for nutrients, fertilizing or grazing management.
- **Mechanical**- mowing, cultivation, digging or pulling of plants.
- **Biological**- use of insects or disease to weaken or kill.
- **Chemical**- the use of herbicides to kill or inhibit growth and reproduction



So why is this important? Understanding the growth characteristics of the weeds you are trying to control will allow you to pick the best type of control or combination of controls. This decision should be based on the type of plant you are dealing with and the desired results. It is important to remember, that there is not a single method that fits all situations. A management strategy that has great control on one species of weed, may stimulate another.



Sublette County Weed and Pest Control District

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\*\*\*\*\*ECRWSSDDM\*\*\*\*\*

Postal Customer

Local



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