

Problem Weeds of the Sublette County Gas Regions

Eric Peterson
Extension Educator,
Mountain West Area, Wyoming

Define Weed

- A weed is a plant that grows in an environmental setting where it is not wanted.
- The determination of the value of a particular plant is subjective—one person's weed may be another person's prized plant.
- Managers need to be familiar with established definitions for types of weeds when dealing with weed problems.

Invasive vs. Noxious

Invasive Plants

- Introduced from another place
- Lacks natural competition
- Becomes aggressive

Noxious Weeds

- Harmful to agriculture, human health, and/or environment.
- The State has a noxious weed law giving them legal standing

Natives and Weeds

Can they be ???

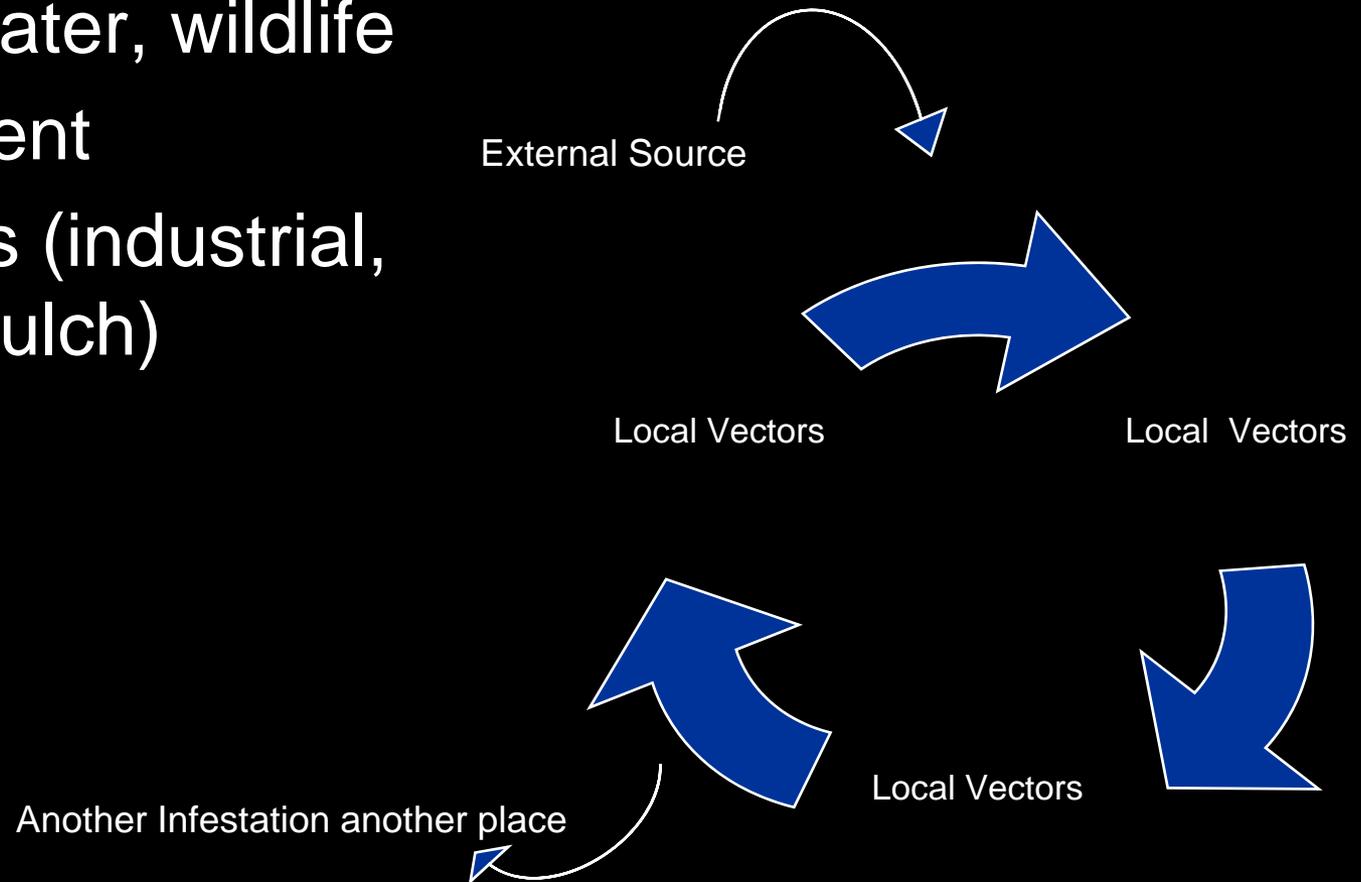
	Introduced	Native
Invasive		
Noxious		

WHERE DO THEY COME FROM:

- *PURPOSEFUL* introductions –
- Ornamental, esthetics and hardiness
- Erosion control problem solvers
- Pasture grasses with forage values
- *ACCIDENTAL* introductions –
- Seed contamination (labeling)
- Animal vectors
- Vehicles, travelers, souvenirs
- Construction and Industry equipment
- Construction and Industry materials

Our Vectors??

- Natural dispersion -
Wind, water, wildlife
- Equipment
- Supplies (industrial,
seed, mulch)
- Traffic
- People
- ??????



PREVENTING INTRODUCTION & ESTABLISHMENT

- Disturb as little as possible
- Specify weed-free materials
 - Seed
 - Mulch
 - Soil
 - gravel
- Clean off equipment between sites
- Compartmentalize infestations
- Train crews to identify weeds early
- Pre-disturbance inspection and control
- Aggressive management of infestations

WYOMING DESIGNATED LIST (or Prohibited)

- Field bindweed
- **Canada thistle ***
- Leafy spurge
- Perennial sowthistle
- Quackgrass
- **Hoary cress (whitetop) ***
- **Perennial pepperweed (giant whitetop) ***
- Ox-eye daisy
- Skeletonleaf bursage
- **Russian knapweed ***
- (Yellow toadflax
- (Dalmatian toadflax
- Scotch thistle
- **Musk thistle ***
- Common burdock
- Plumeless thistle
- **Dyers woad ***
- Houndstongue
- **Spotted knapweed ***
- Diffuse knapweed *
- Purple loosestrife
- **Saltcedar ***
- Common St. Johnswort
- Common Tansy
- Russian olive

Declared Weed List

- Sublette County
 - Black henbane *
 - Scentless chamomile
- Sweetwater County
 - Black henbane
 - Foxtail barley
 - Lady's bedstraw

Annuals, Biennials, Perennials

- Annuals – Grow from seed every year
 - Quick, short, vigorous seed production
 - Opportunistic – seed bank
- Biennials – Grow from seed – TWO year lifespan
 - Vegetative year, Reproductive year
- Perennials – Long-lived
 - Weak seed production, strong root system
 - In it for the long haul

Plant Adaptations

- Dry or Wet site
- Sandy, gravelly, clayey soils
- Early/Late starts
- Shallow/deep rooted
- Elevational
- Precipitation
- Etc.

Some weeds aren't adapted to some sites, just like some desirable or native plants aren't adapted to some sites.

An adapted weed will out-compete a poorly adapted desirable plant, every time, unless we apply artful management.

Good and Bad

- Weeds are opportunistic pioneers
 - Weeds may reduce soil fertility
 - Weeds provide stabilizing components
 - Weeds are “low maintenance”
- BUT!**
- Weeds steal resources from desired plants
 - Weeds interfere with establishment of desired plants

It is a jungle out there!

- Competition for resources is keen
 - Water
 - Nutrients
 - Light
 - Space
- Competition between plants and plant species can make or break reclamation efforts
- We can affect competition to our advantage by applying stresses.

Our Common Weeds

Annuals

- Lambsquarter
- Kochia
- Russian Thistle
- Henbane
- Halogeton

Bi/Perennial

- Canada Thistle
- Musk Thistle

The ones to watch for

Annuals

- Cheatgrass

**Survey Says:
Halogeton is the
weed raising the
most alarm!**

Bi/Perennials

Dyer's Woad

Saltcedar

Knapweeds (Russian,
Spotted)

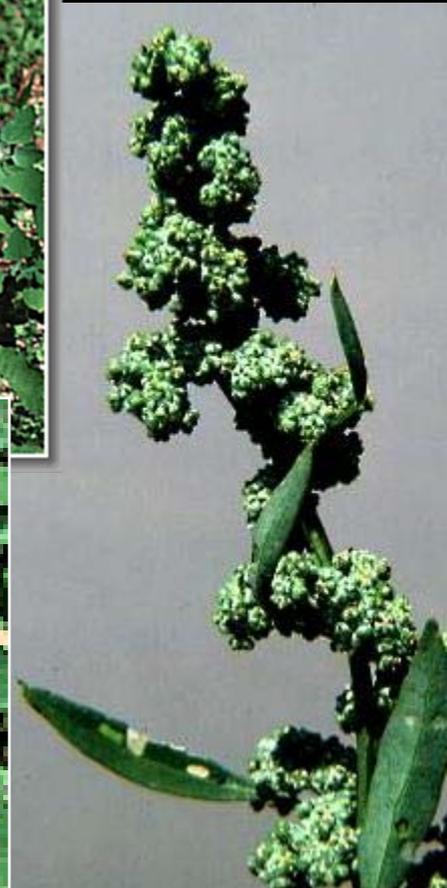
Hoary Cress

Perennial Pepperweed

Lambsquarter

Chenopodium album

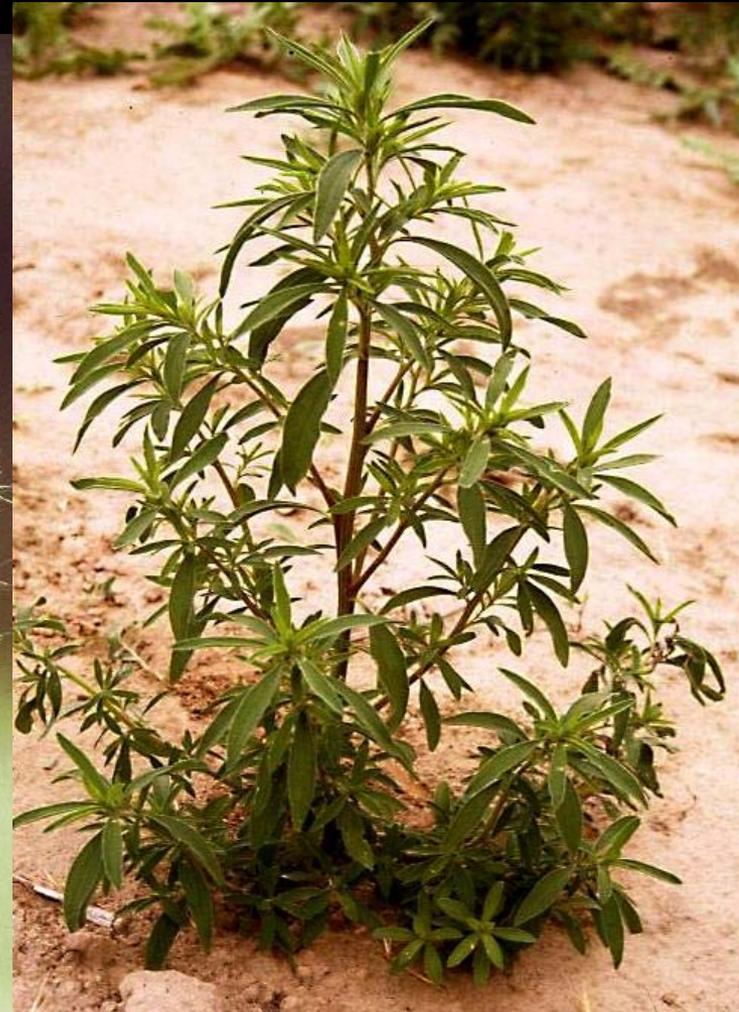
- Annual
- Leaf underside covered with white mealy substance
- 1" – 2" long, 1" wide leaves. Pointed
- Flowers – small green clusters



Kochia

(*Kochia scoparia*)

- Annual
- Plants are erect, 1 to 6 feet in height
- Multiple branches.
- Slender, alternate leaves are smooth on top and hairy below.
- Flowers form short spikes in axils of upper leaves.



Russian Thistle

Salsola iberica

- “Tumbleweed”
- Annual
- 20K-50K seeds
- Germinate quickly after precip.
- Well branched, bushy
- Wind-blown



Black Henbane

Hyoscyamus niger

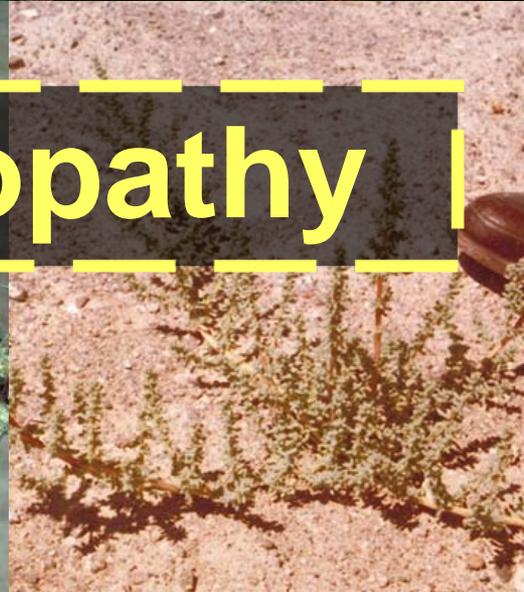
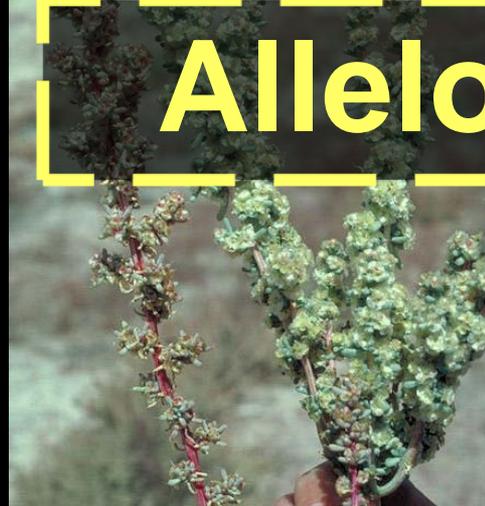
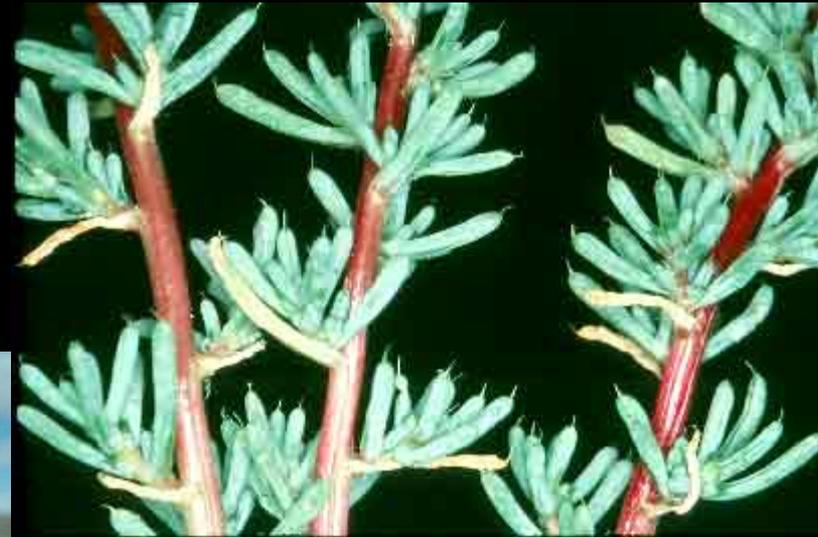
- Annual or biennial
- Robust – 3 feet
- plant is covered with greasy hairs
- Leaves up to 8 inches long and 6 inches wide, shallowly lobed
- Heavy scented
- Huge seed production from capsules
- Poisonous/medicinal properties
- Weak competitor



Halogeton

Halogeton glomeratus

- A small forb 3 to 12 inches
- Stems red when young, turning yellow to white
- Stems are branched from base, spreading first, and then growing vertical. Flowers July to September
- Flowers Small and inconspicuous, in leaf axils.
- Saline or alkaline soil
- DROUGHT TOLERANT



Allelopathy

Canada Thistle

Cirsium arvense

- Perennial
- Deep and extensive horizontal roots
- Leaves are wavy, up to 6 inches long, and armed with yellowish spines.
- Stems are 1 to 6 ½ feet tall, rigid, and branching above.
- Flowers are purple, occasionally white, in head ½ to ¾ inch in diameter, clustered at the top of the stems. Bracts below flower are spineless



Musk Thistle

Carduus nutans

- Biennial
- Up to 8 feet tall.
- Leaves are up to 10 inches long, dark green
- Solitary, lightly spiny, and nodding
- Heads develop at the stem tips in midsummer and grow to a diameter of 1½ to 3 inches.
- Blossoms are deep rose to violet or sometimes white in color.



Cheatgrass – Downy Brome

Bromus tectorum

- Annual grass
- 2 inches to 2 feet tall. Has a branched base and is typically rusty-red to purple at maturity.
- Has rapid spring growth
- Early maturity
- Aggressive.
- Open, drooping, much branched seedhead



Dyer's Woad

Isatis tinctoria

- Winter annual, biennial, or short-lived perennial
- Basal leaves up to 8 inches long
- Thick taproot
- Lance shaped stem leaves clasp the stem
- Leaves all have a prominent whitish midvein
- Up to 4 feet tall
- ¼-inch wide, yellow flowers in flat-topped clusters
- Seeds teardrop shaped, ¾-inch long, purplish-brown pendulous



Saltcedar

Tamarix ramosissima

- long-lived dense growing shrub or tree
- 6 to 26 feet tall. The crown is narrow or rounded.
- deep taproot and extensive lateral rhizomes.
- Flowers are white to pink, each 1/16-inch long, and grow in long (1-2 inches), narrow, drooping cluster



Knapweeds

Russian, Spotted, Diffuse

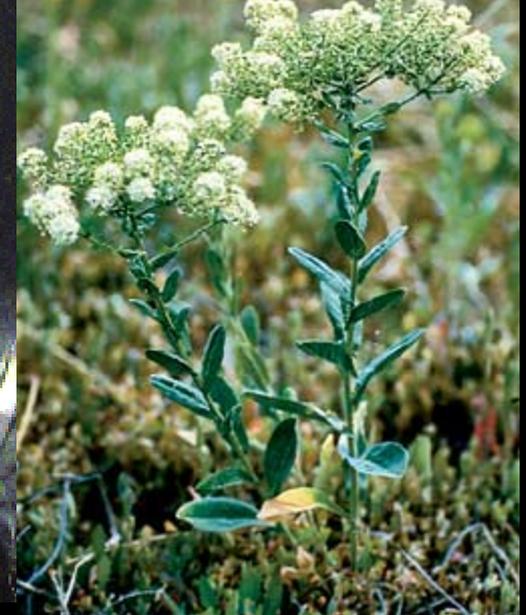
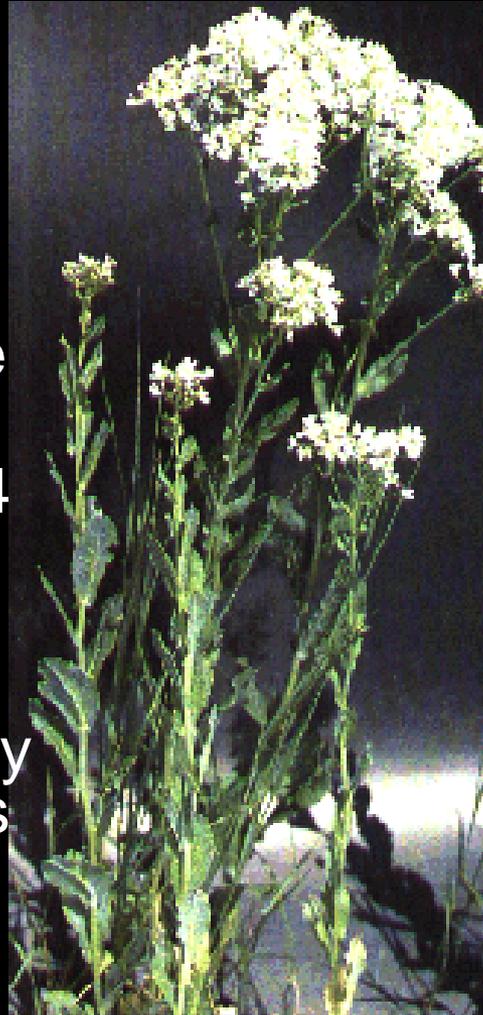
- Perennial
- Branched and up to 4 feet tall.
- Leaves are up to 6 inches long near the base of the plant,
- The flower heads are about ½ inch in diameter and are borne on branch tips during summer and fall.
- Flowers may be white or pink to lavender-blue



Hoary Cress

Cardaria draba

- “Whitetop”
- Perennial
- Up to 3 feet tall.
- Leaves are grayish-green, clasping, up to 4 inches long, shaped like arrowheads
- Flowers are white with 4 petals, $\frac{1}{4}$ inch across,
- Dense flower clusters give the weed a flat-topped appearance early in the season, but this is lost as the stem elongates.



Perennial Pepperweed

Lepidium latifolium

- Perennial
- Up to 6 feet tall
- Basal leaves that are lance shaped, are up to 12 inches long, waxy
- Stem leaves are smaller
- Flowers are white, less than 1/8 inch wide in dense, rounded clusters at the branch tips
- Fruits are roundish, measure 1/16 inch in diameter, and contain 2 tiny seeds.



Management/Control

- Mechanical
- Chemical
- Bio-agents
 - Insects
 - Disease
- Cultural
- Genetic
- IPM (Integrated Management)



Weed Strategies

- Early detection
- Reporting
- Control (contractors)
- Surveillance

- Planning/Awareness
- Vector Sanitation
- Communication



Reporting



- County Weed and Pest Control Districts
 - All 23 Counties
 - Mandate for noxious weed control
 - Networked with independent contractors
 - http://www.wyoweed.org/wp_dist.html

The Weed Underground



Thanks!

Questions???

