

GOT WEEDS ?



Mary McKinney

**Park County Weed and Pest
Control District**

Nuisance or Noxious?



Photo by:
Richard Old
www.xidservices.com



*Wyoming State Statutes to provide services.
Noxious is a legal definition that allows for control.
WY 31 Designated, PC 16 Declared*

- **PC is a Quarantine County 1957/1980**
- **Treat roadsides for noxious species.**
- **Work with other agencies/entities/large scale projects**
- **Certify WFF-required on public lands**
- **Provide Recommendations Technical Assistance:**
Herbicides, IPM, On-site Consultations
- **Pesticides For Sale**
- **Sell Cert WSF Perennial Grass Seed -Cost Share**
- **Rental Equipment- seeders, spray equipment**
- **Outreach and Education**
- **Planning and Zoning -Regulated Disturbances**

Why Should You Care?

- ◆ Stewardship!
 - ◆ Our Responsibility
 - ◆ Harm Natural Areas
 - ◆ Ecosystem
 - ◆ Alter Fire Cycles
 - ◆ Affect Water Systems
- ◆ Be a Good Neighbor
 - ◆ Water, weeds, wildlife



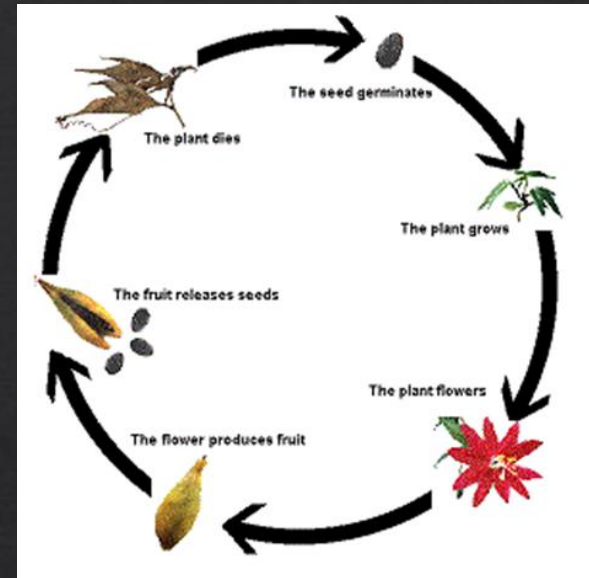
Think About...Ecology

- Inherited
- Disturbances-human caused
- Pasture/grazing management
- Ecosystem changes, etc.
 - Inherent benefits



Biology

- **Proper ID! Critical!**
- **Life Cycle of the Plant**
 - Annual vs/ Complex Perennial!
 - Interaction with other plants
- **Morphology**



Integrated Pest Management IPM-Toolbox



◆ **Prevention** - limit disturbances, know B4 you grow, manage for desirables

◆ **Cultural**-crop rotation, spacing, burning, *proper* grazing...

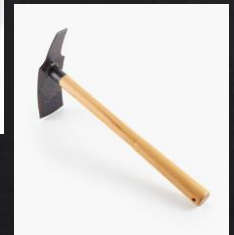
◆ **Re-vegetation! Cover Crops?**

◆ **Mechanical**-mowing, burning, flooding

◆ **Biological**-pest alone may not do all the damage, secondary effects

◆ **Chemical**-use of pesticides

◆ *Calibrate your sprayer!*



Using Herbicides



That herbicide didn't work!

Misidentification of the weed (What was that sucker, anyway?)

All weeds are **not** created equal!



≠



- Scout your fields and learn to identify the weeds.
- If you don't know what one is, ask someone who knows. After you've properly identified the weed, remember IPM!
- 2, 4-D will not kill your grass!
- Use herbicides as ONE of the tools in your toolbox.

Read the label!

Used the wrong product



(What's the best thing
you've got for ??)

OK, now give me the cheapest!

Sprayed at the wrong growth stage

(I got to it when I could.)

- **Annuals** (herbicide not necessary unless...your choice)
 - young and actively growing
- **Biennials**
 - 1st yr. rosette, early in 2nd yr.
- **Perennials**
 - Simple - rosettes/bolting
 - Complex - +surface area, to flowering, actively growing, fall (species dependent)
- **Woodies** (species dependent)
 - Actively growing foliar
 - Winter/basal bark or cut stump



Environmental Conditions

It's never too ...



Didn't calibrate sprayer

(I think a tankful covers somewhere between 10 and 50 acres.)



If you don't know how to calibrate a sprayer, the UW Extension or Park County Weed and Pest can assist you.

What was all that stuff on the label?

REQUIREMENTS!

- Safety considerations
- Residual info/carryover
- Product use
- Container/rinsate disposal
- Endangered species info
- **Federal law**



“THERE'S A LOT OF REALLY SMALL TYPE ON THAT THING”!

Or my favorite...

• ...”ISN’T that what Weed and Pest is for”!

Annuals-Winter/Summer



Russian thistle-S



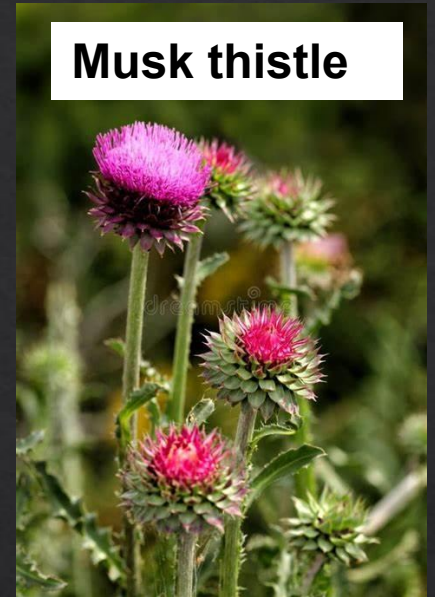
- **Annual broadleaf** - pre-emergent-Preen, Prodiamine, 2,4-D, *glyphosate*, *Range Star*, E2, Escort, etc. Grasses- Glyphosate, clethodim, pre-Idaziflam, Prodiamine

Biennials

Houndstongue
New bio agent
Mogulones crucifer



Common burdock



Musk thistle



Black henbane

- – same as annual
plus *Chaparral*,
2D, *Milestone*

Perennials-*Simple Spread via seed only*



Dandelion



Plantain



Spotted knapweed



Foxtail Barley



Perennial Baby's breath

Complex perennials- *spread via seed and a creeping root!*

Russian knapweed



Russian olive



Whitetop

Common Herbicides con't.

- **Perennial** – Depends on complex or simple. May use same as those above depending on grass or broadleaf. *Species specific!*
 - **Whitetop**-Escort (MSM), Telar
 - **C. thistle** and R. knapweed – Milestone, Chaparral, 2D
- **Woodies** – depends on species. Many times glyphosate, triclopyr, etc. ASK!

Always Read the Label and use PPE's!

Non-Traditional Herbicides



Vinegar-PPE's

Vinegar/Salt/Dawn mixture

“Spruce”®

Others...



Common Pests

Nuisance vs. Noxious



Wyoming has 6-Beet leafhopper, Grasshopper, Prairie Dog, Ground Squirrel, Mormon cricket, Mountain pine beetle
Park County has 2-Grass Thrips, Emerald Ash Borer

Small Mammals

Wyoming ground squirrel, *Urocitellus elegans*, (Richardson's ground squirrel)-Strychnine, Anti-coagulants



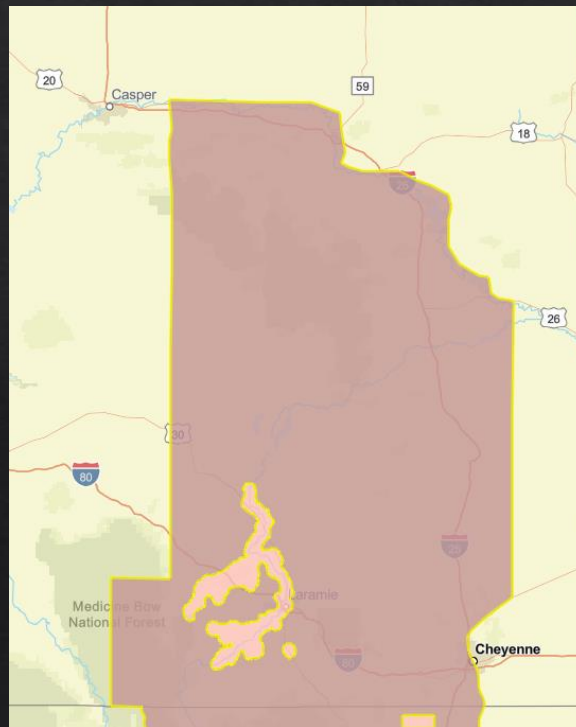
Prairie Dog

Two species are known to exist in the state, the black-tailed prairie dog-east/north, *Cynomys ludovicianus*, and the white-tailed prairie dog, *Cynomys leucurus*-west-Strychnine, Anti-coagulants

Bulletins Live II

*Your responsibility to check the website
for restrictions!*

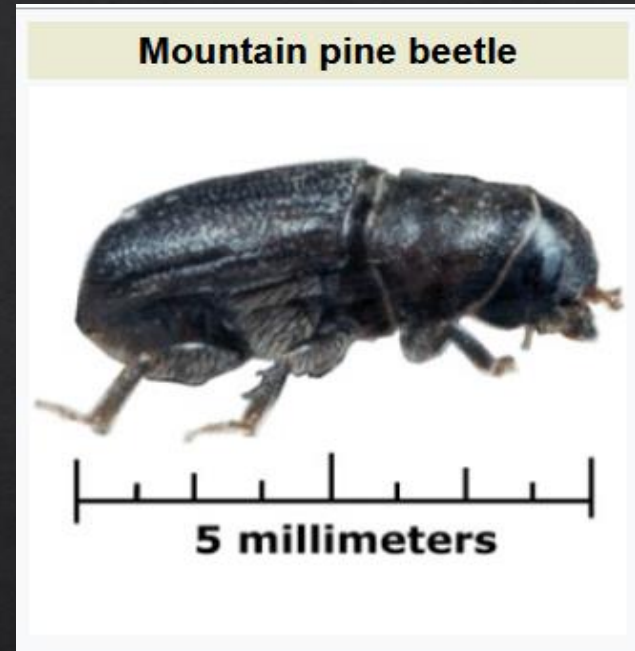
[Bulletins Live! Two -- View the Bulletins | US EPA](#)



Insects



Mormon cricket, *Anabrus simplex*, is a large migrating insect in the katydid family.-Carbaryl, Dimilin

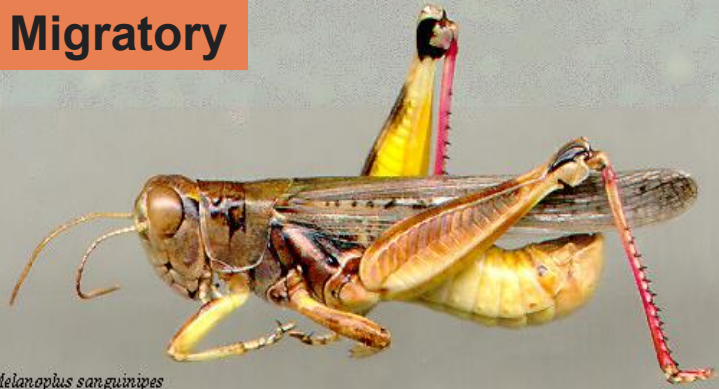


Dendroctonus ponderosae
Pines-lodgepole, limber, ponderosa, whitebark...
Pheromones-verbenone, Carbaryl, permethrin, bifenthrin.
Timing

Grasshopper Crop Pests

The major pest species

Migratory



Melanoplus sanguinipes

Differential



Two-striped



Redlegged



Melanoplus femurrubrum

Insects Con't...



Sugarbeet leaf hopper
(*Circulifer tenellus*)-sugar beets,
tomatoes, chilis. Beet curly top
virus-treated seed



Emerald ash borer-
Agrilus planipennis-true ash
species, white, green
Imidiclopid, Safari
(*Dinotefuran*)

BOLO-Palmer Amaranth

- Native SW USA
- Resistant to many herbicides
- 1st known infestation under a bird feeder



What's in Your Bird Seed?

Look for labels that list each grain

Good choices are:

- Niger thistle seed
- Cracked sunflower seed
- Whole black sunflower seed
- Specific nuts
- Other grains not amaranth



11-13-106(c)(ii)(D) of the Wyoming Commercial Feed law states a commercial feed is considered "adulterated" when, "It contains any prohibited noxious weed seeds or exceeds the tolerances established on restricted noxious weed seeds pursuant to W.S. 11-12-104 or exceeds two percent (2%) of viable common weed seeds by weight."

***Avoid those that list grains as
a lump sum unit!***

Final Thoughts

- **Manage for Desirables**
- Proper Grazing Management
 - IPM
 - Monitor
 - Limit Disturbances
- **Hay is Cheap, Land is Valuable!**
 - **Plant Native!**
- If you don't know something, ASK!
Read the Label

Success lies in minimizing mistakes. Most of these are simply human error.

Questions?



"Planting native species in our community is increasingly important because indigenous insects, birds and wildlife rely on them. Over thousands of years, they have co-evolved to live in local climate and soil conditions"

- David Suzuki

parkcountyweeds.org

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