

Mystic Ranger District Invasive Plant Orientation

Presented By:

G E N E B O L K A

Range Technician
District Invasive Plant Coordinator
Mystic Ranger District

2012 Mystic Weed Crew



Invasive Plants Can Get Expensive



State of South Dakota 2007

- ▣ HOW MUCH???
- ▣ Acres infested in South Dakota – over 4,356,842 acres; equivalent to 139 acres per farm and ranch.
- ▣ Infestations affect crops and pasture/range:
 - 54% of Canada thistle is in crops and grassland.
 - 66% of Leafy spurge is in grassland.
- ▣ Non-crop areas are a source of spread.
- ▣ Over 500,000 acres non-crop infested.

State of South Dakota 2007

- ▣ Loss in production from statewide noxious weeds:

Over \$140,000,000

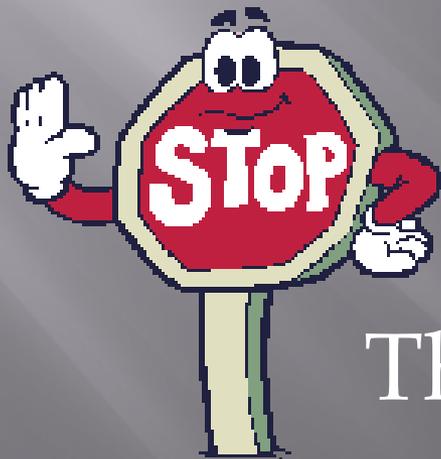
- ▣ Biennial thistles and absinth wormwood cost:

Over \$21,000,000

In the State of South Dakota 2011

- ▣ The counties spent \$4,181,968
On weed control
- ▣ Cost of economic value lost: ??



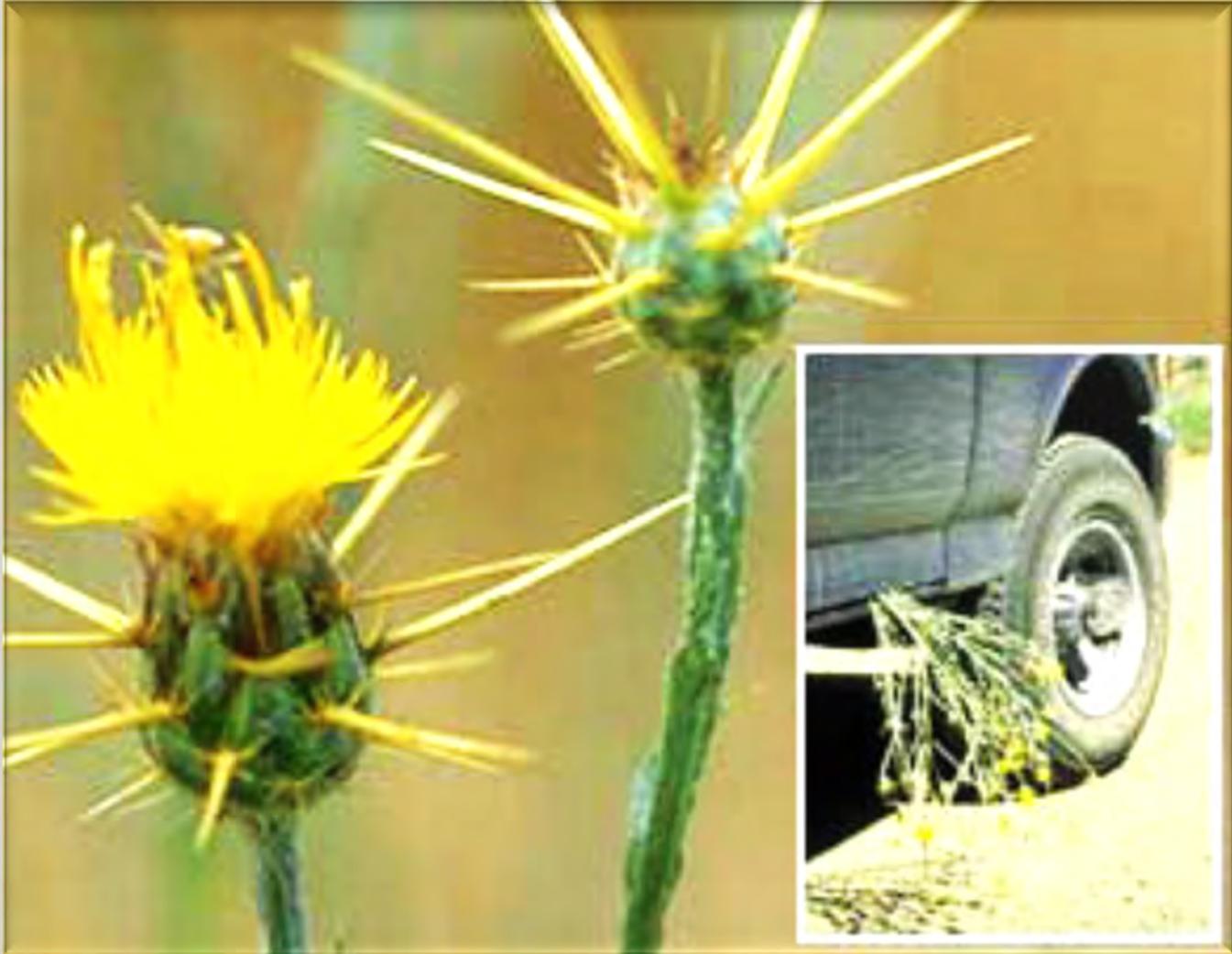


The Spread of Invasive Species

How the Invasive Plants Spread?



More Ways To Spread Invasive Plants



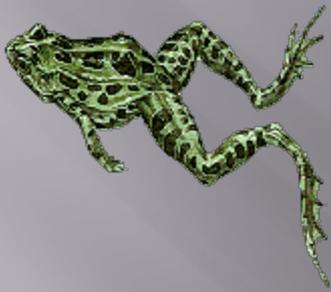
Humans (We are Unaware!)



TREATMENTS



There is a need to Watch Where You Spray



TREATMENTS

A large central image of a brown beetle with long antennae, resting on a green leaf.

iscutis

A small inset image showing a beetle on a leaf.A small inset image showing a grasshopper on a plant stem.A small inset image showing several small, light-colored beetle eggs on a dark surface.

a erythrocephala

A large image of a grasshopper with long antennae, perched on a green leaf.A small inset image showing a grasshopper on a plant stem.

Aphthona lacertosa

A large image of a black beetle with long antennae, resting on a green leaf.A small inset image showing a grasshopper on a plant stem.A small inset image showing several small, light-colored beetle eggs on a dark surface.A small inset image showing a beetle on a leaf.

TREATMENTS

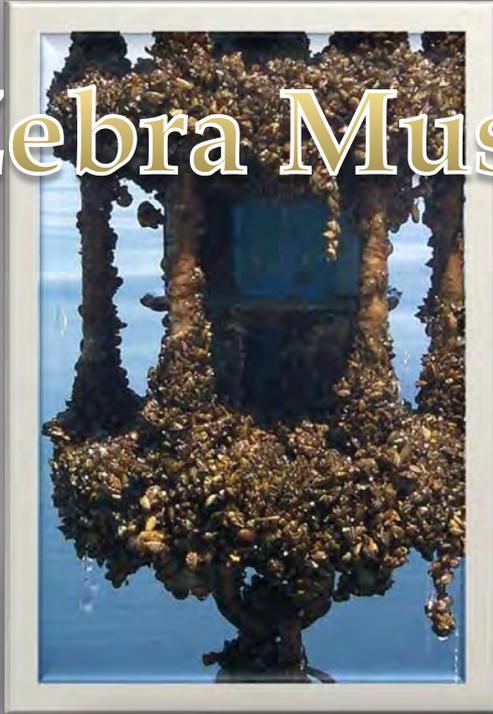


WHY TREAT FOR INVASIVE PLANTS??



Aquatic Visitors

Zebra Mussels



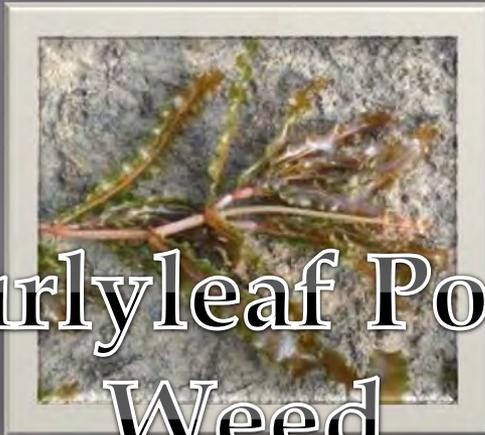
Rock Snot



Zebra Mussels



Curlyleaf Pond
Weed



Check Everything!!



Just have to have one pie chart!



Invasives to Watch For?



Asian Carp

Nerissa Michaels

Asian Carp

desmoinesregister.com

More Aquatic Invasives



European
Rudd



Rusty Crayfish



Snakehead

**Wanted dead, not alive
INVADING SPECIES**

Northern Snakehead, *Channa argus*



Aliases: Unknown

Invasives to Watch For?



Orange hawkweed

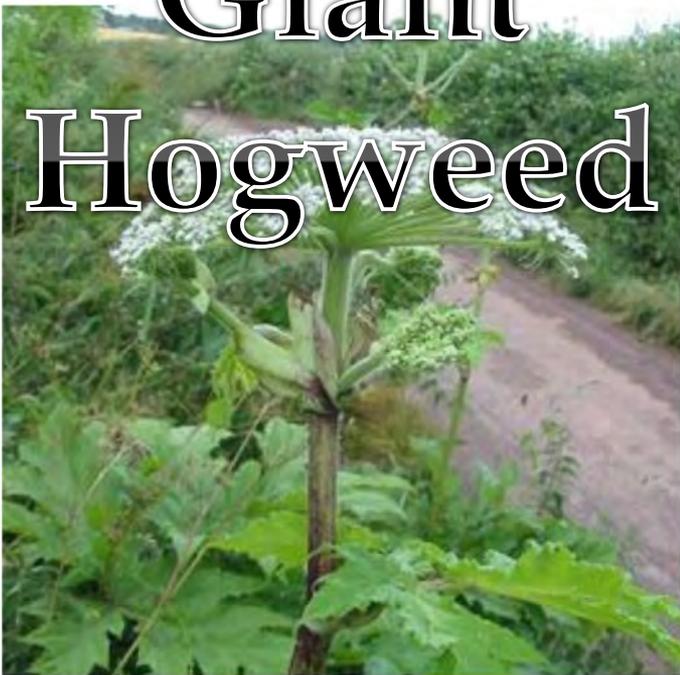


Oxeye daisy

More for the Watch List!!



Giant



Hogweed



Japanese

Knotweed



Even More Invasive Species to Watch For.

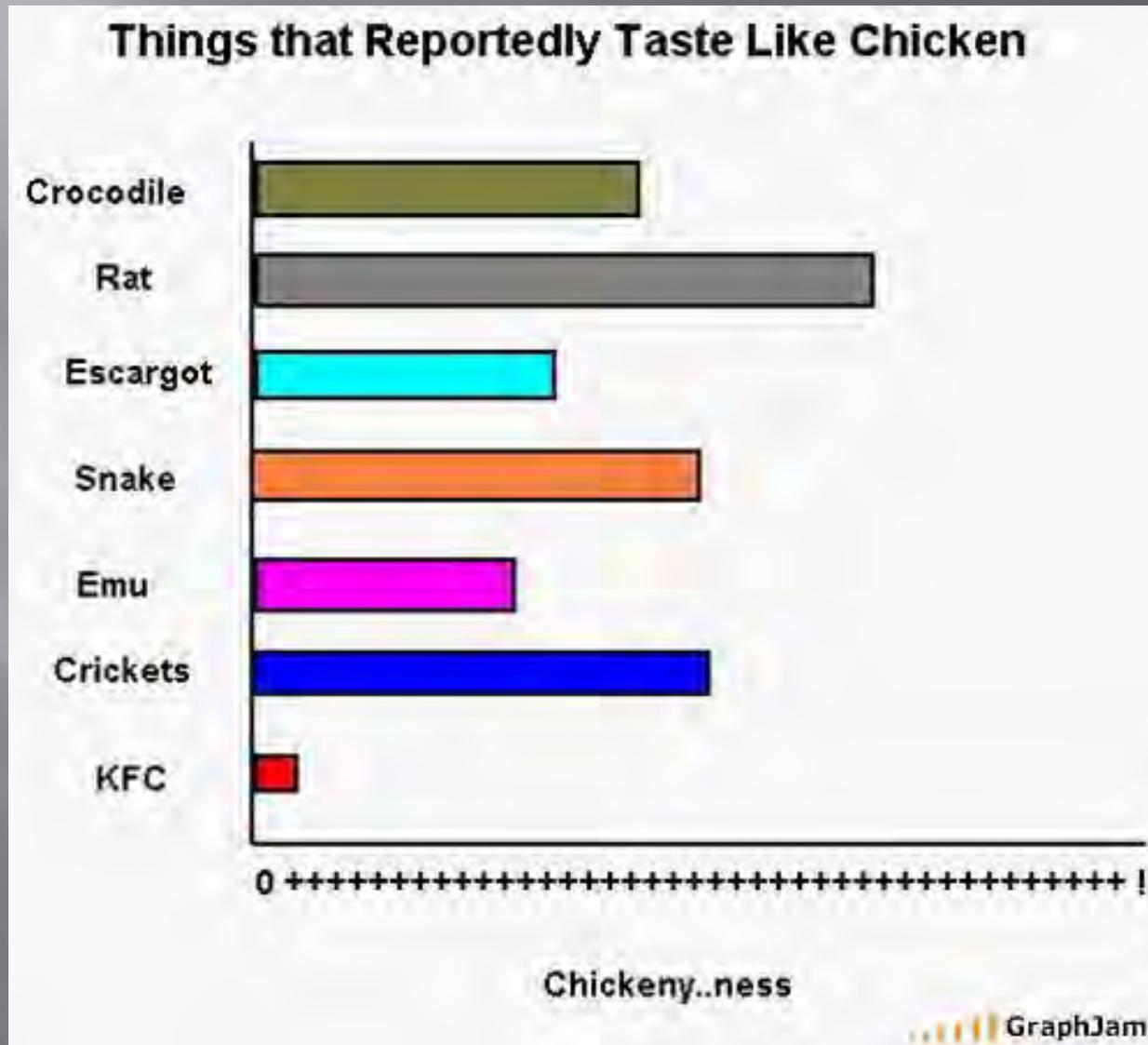


European



Emerald Ash Bore

Just have to have one Graph.



Are There GOOD Non-Native Species??

YES!!



Brown Trout

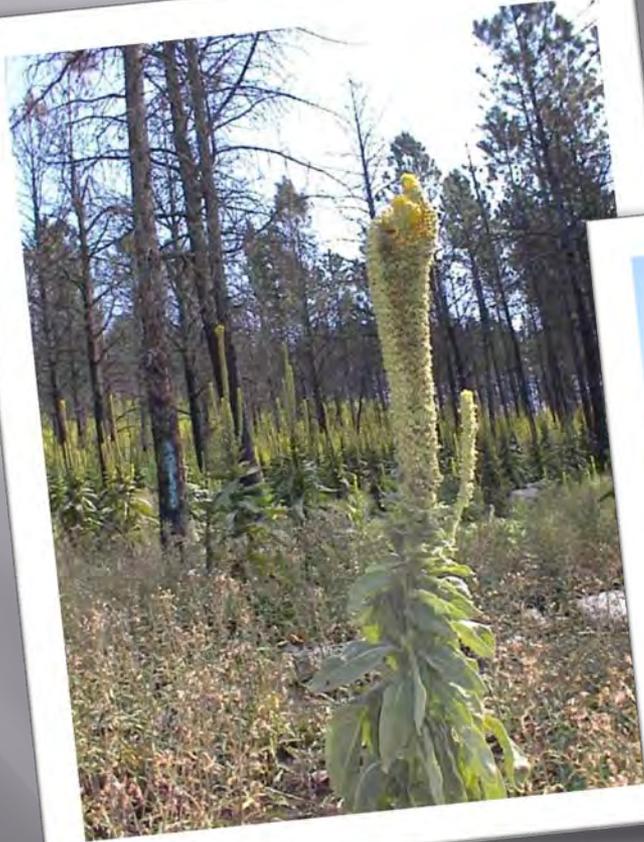


Ringneck Pheasant



Brook Trout

Fuzzy Mullein



Common mullein

- ▣ Distorted and yellow common mullein plants (*Verbascum thapsus*) were discovered by Ryan Lerman and Kayla Sisk (Mystic weed crew). On August 20, 2012 Eugene Bolka, Kelly Owens, Joey Charboneau, and I visited two areas in the Black Hills National Forest, Mystic Ranger District with symptomatic mulleins to determine the disease involved. The plant distortion and yellowing is likely caused by aster yellows disease (AYD). Since mulleins are weeds introduced from Eurasia there was potential interest in using this disease as a biocontrol agent.

Common mullein

Healthy Seed Head



Aster yellows disease

Common Mullein

- ▣ Aster yellows disease is caused by phytoplasma (*Phytoplasma asteris* or *P. japonicum*) which are bacteria or “bacteria-like” organisms that lack cell walls and have triple layered cell membranes. They live in the phloem of their hosts and in the bodies of their insect vectors, often leafhoppers. Leafhoppers insert their sucking mouthparts into plant stems and feed on phloem cells. The insects acquire the phytoplasma through their mouthparts from infected plants. The pathogen overwinters in infected biennial and perennial hosts.

What to DO when you find invasives ????????



GPS THE SPOT

No GPS Unit??



Make a Mark on a Map

What Next??

TELL SOMEONE:

- ▣ County Weed and Pest Supervisor or
- ▣ If in the Black Hills, inform a district office. They in turn can contact the Weed coordinator.
- ▣ Have a computer, go to the Black Hills Web page, Left side, click on Lands and Resources Management, Right corner, click on Invasive Species, Noxious Weeds, and Aquatic Nuisance. Right Side, click on Noxious/Invasive Weeds Comments. It then shows how to make comments about contacting Gene Bolka, Mystic District Invasive Plants Coordinator.

Just a few BIG Patches



Thought of the Week!!

- ▣ There once was a weed that stood the sands of time.
- ▣ The only thought was to say nothing, out of sight, out of mind.
- ▣ But the group managed to keep together and low and behold.
- ▣ The weed left the spots in the soil, and the crops turned into gold.
- ▣ Burma Shave

Just STUCK



Really Stuck

What Next??



**Far Fetched? I
don't think so
Tim!!**



Right Around the Corner?



You do not want your yard look like this?



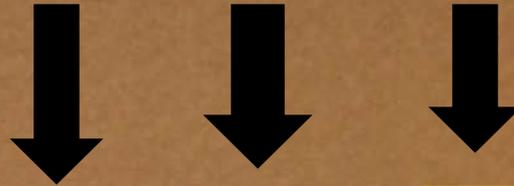
Identify all
suspicious plants

Do not wait until?



**Treat and Monitor
NOW!!**

The Right Place at the Right Time



Regular
Trash

Recyclables

Green
Compost



11/07/2012 3:26 pm

Get your flu shot!!



We approve of this powerpoint



2012 Mystic RD Accomplishments

- ▣ County MOU 1,000 +1 Acres Treated
- ▣ Contracted 400 Acres Treated
- ▣ Force Account KV 800 Acres Treated
- ▣ Force Account VW 92 Acres (Actual 286 Acres)
- ▣ Number of Timber Sales 22
- ▣ Dams and Quarries 66 Acres Treated
- ▣ Acres of Biological Control 140 Acres, 25 New Releases, 11 Leafy spurge, 14 Canada thistle and three Relocation of Gall flies.
- ▣ Acres Monitored 1,902 Acres 17 Timber Sales

Work with your neighbors!!



Thank You for your Time

- ▣ Also Thanks to:
- ▣ Google images
- ▣ Desmoinesregister.com
- ▣ Graphjam
- ▣ Jim Blodgett, Forest Health
- ▣ Men and Women of the Mystic Ranger District
- ▣ South Dakota Department of Ag.
- ▣ Pennington County W & P

Local Contact
ebolka@fs.fed.us
605-716-1857

