### ON THE MOVE

#### INVASIVE SPECIES

-Coming to you

-Highway vector

-Partnerships



#### INVASIVE or NOXIOUS WEED?



#### INVASIVE PLANTS:

Aggressive nonnatives

- NOXIOUS WEEDS are aggressive nonnatives that threaten:
- 1. agriculture,
- 2. environment, or
- 3. human health.

On County, State or Federal Regulatory Lists......

## \$137,000,000,000\*/yr.

#### **□ ECONOMIC LOSS:**

- Crop yield loss
- Range forage loss
- Forest production loss
- Tourism and recreation limited
- CONTROL COST of public and private lands
- Property values

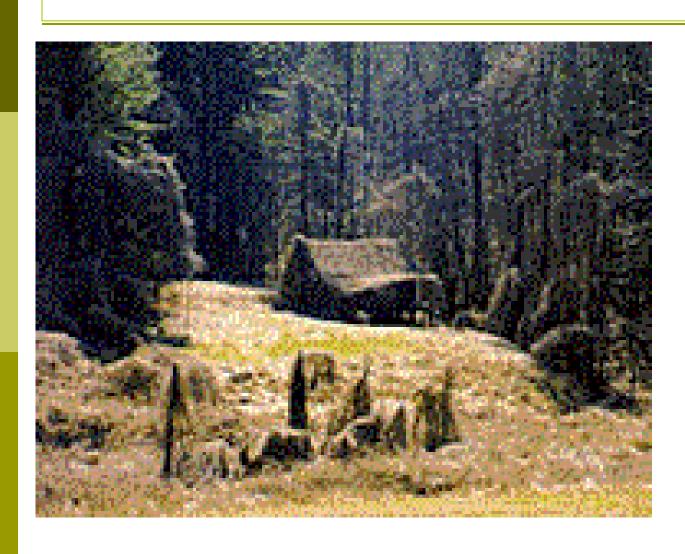
#### ECOLOGICAL LOSS: UNKNOWN

- wildlife habitat
- increased wildfire losses
- biodiversity and endangered species
- \* Cornell University estimate, Pimentel, 1999.



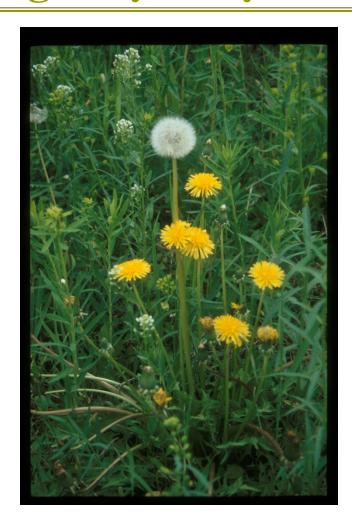


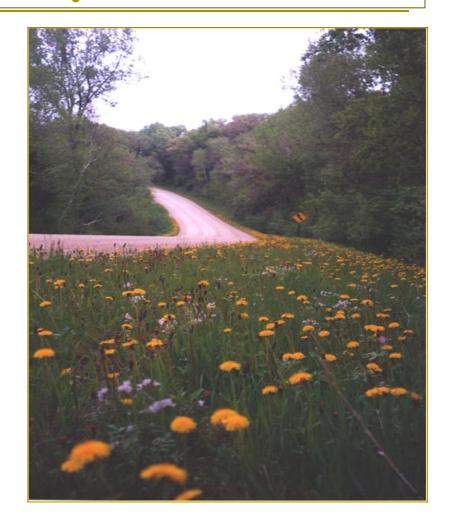
#### The Lessons of Kudzu!



#### ON THE MOVE...

#### highways only one of many vectors

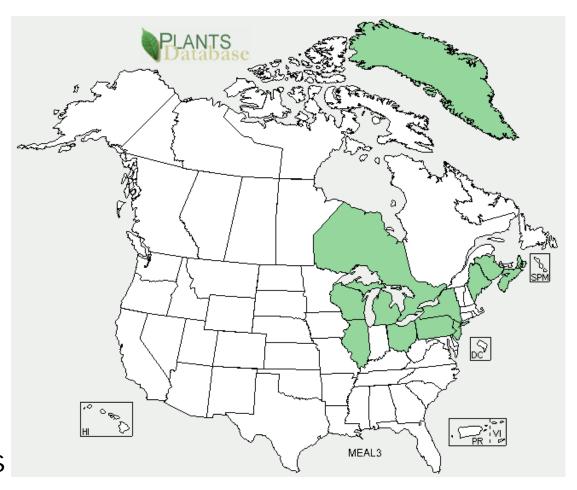




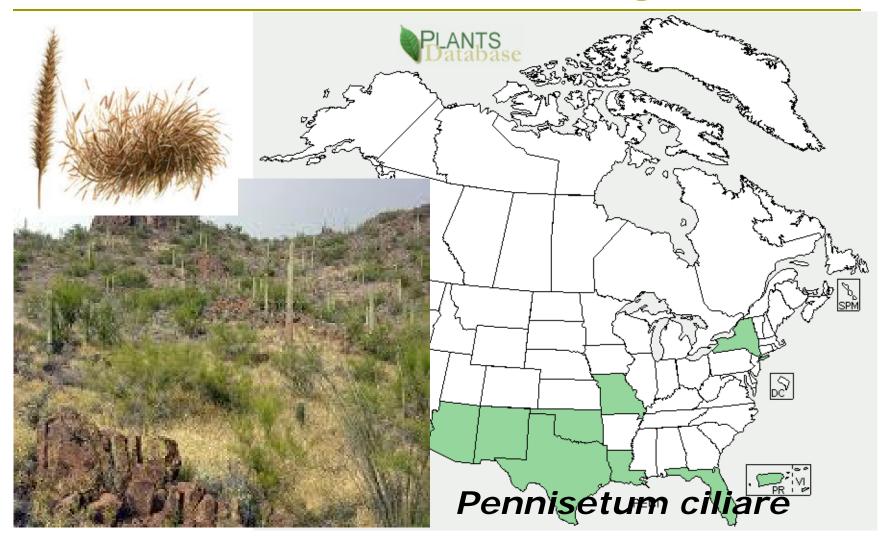
#### ON THE MOVE, Yellow Sweet Clover



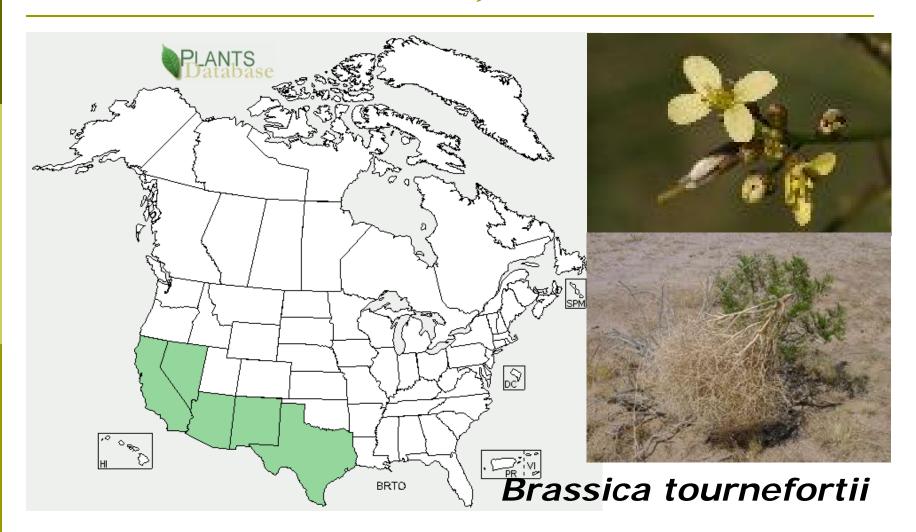
MELILOTUS OFFICINALIS



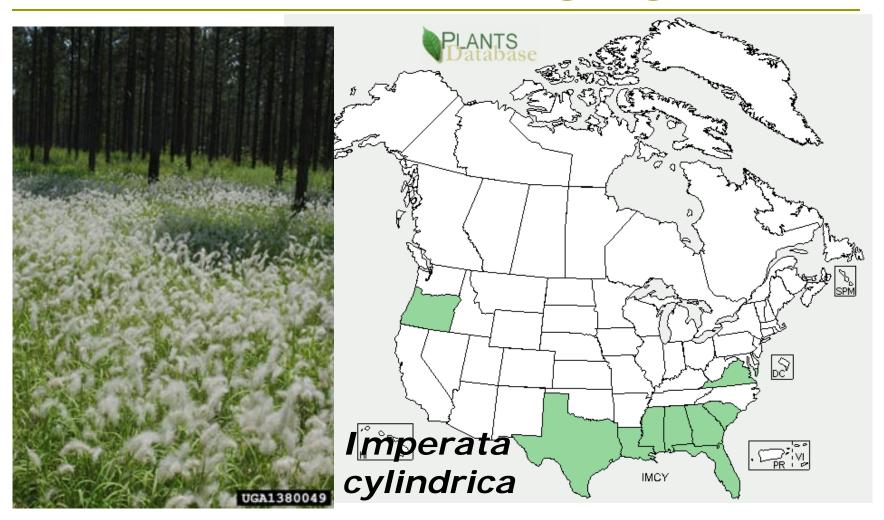
#### ON THE MOVE, Buffelgrass



#### ON THE MOVE, Sahara mustard



#### ON THE MOVE, Cogongrass



### ON THE MOVE, Japanese stiltgrass



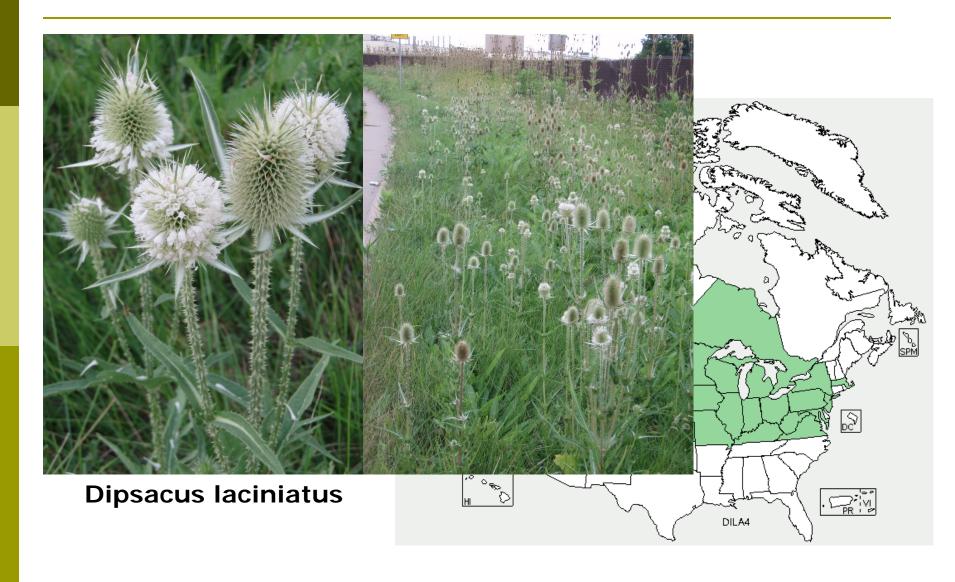
#### On the Move -Chinese Silver Grass



**Miscanthus** sinensis



#### ON THE MOVE - Cutleaf Teasel



#### REMEMBER!

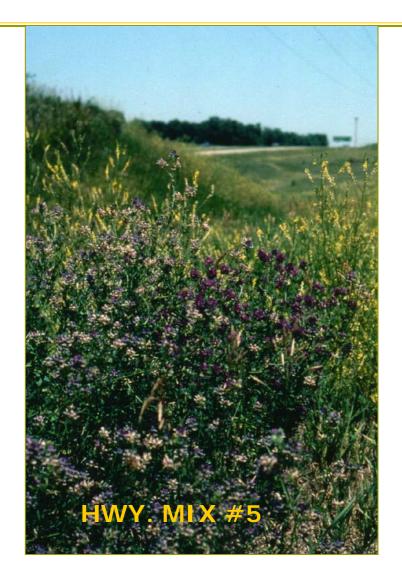
Invasive Species
DO NOT
RESPECT
POLITICAL
BOUNDARIES!



### DOTs spread them accidentally!



#### And DOTs Planted Them!



- sweet clover
- alfalfa
- smooth brome
- timothy
- perennial rye
- crownvetch

AGRICULTURAL
Instead of
ECOLOGICAL
SOLUTIONS

#### NOT JUST A BUNCH of WEEDS!





#### Wildflower Mixes! in 1987









#### Native Wildflower Mixes, 90's









#### PRESERVE REMNANTS



#### WHAT DOTs CAN DO - BMPs



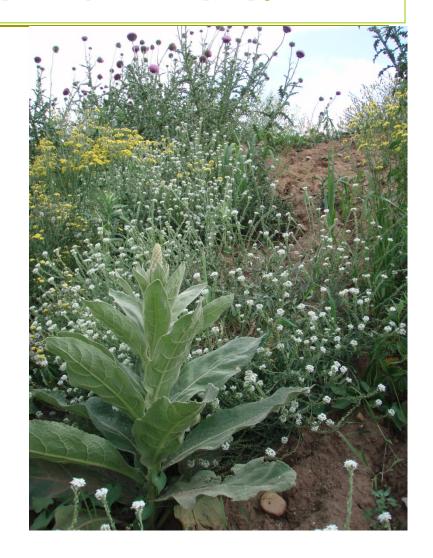
## Certify GRAVEL PITS!



#### SPECIFY "WEED-FREE:



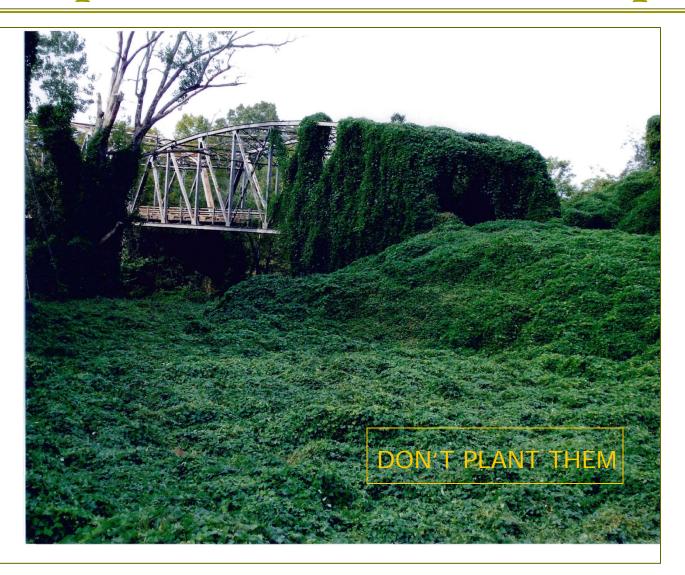
MULCH
SOIL
SOD



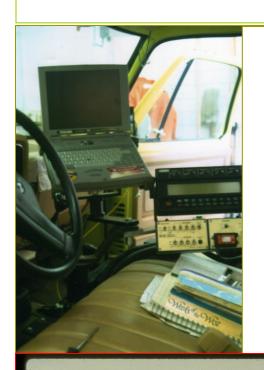
#### **AVOID** or **RESTORE**



#### Kudzu planted in 1940 on 3:1 slopes



#### WEED CONTROL: I R V M











#### APPLIED SCIENCE

Development of affordableWEED WASHING, on market 2012



## EDDMapS

- DISTRIBUTION
- STATE and COUNTY
- CURRENT

■ YOU CAN HELP!!!



## CWMAs and more:



#### BLM, ODOT, & Malheur County

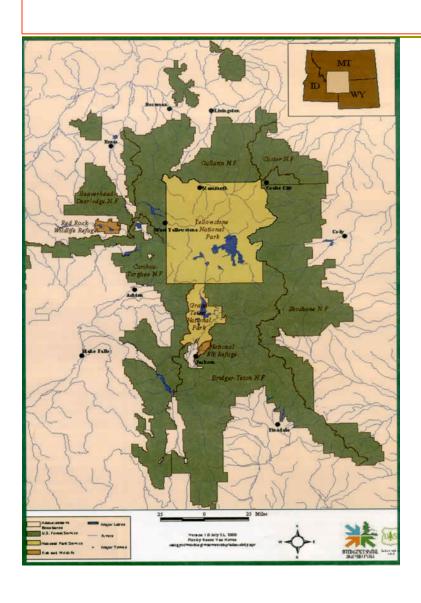
3,686,000 acres, 2000 centerline miles



- □ DOT > truck
  - +
- BLM > spray equipment
  - +
- □ County > driver

PARTNERSHIP
10 x coverage

#### **GREATER YELLOWSTONE**



- Federal Agencies +
- State Agencies +
- Local Agencies +

11,000,000 acres
PARTNERSHIP

# ADIRONDACK PARK INVASIVE PLANT PARTNERSHIP

- APIPP MOU 2001
- NYSDOT, in lead

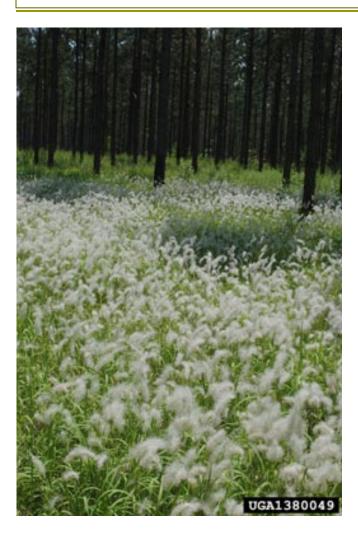
□ ERADICATION

HERE IS STILL

POSSIBLE!!!



### PARTNERSHIPS: Georgia 2008



Cogongrass, *Imperata cylindrica* 



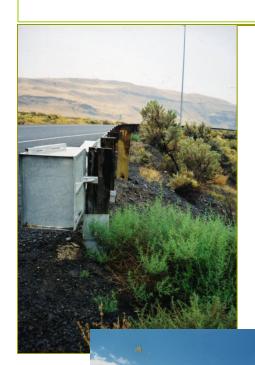
#### Fond du Lac Band of Chippewa

■ MOU signed on May 15, 2009



- Agreed to:
  - PRESERVE natural heritage
  - USE FL permit system.
  - NOTIFY FL about spray dates/reports
  - MONITOR & REPORT early
  - MAP invasives on ROWs.

#### **AVOID DISTURBANCES!**



- Ditch cleaning
- Scalping turf
- Car crashes
- Fiber optics
- □ AND MORE>>>>



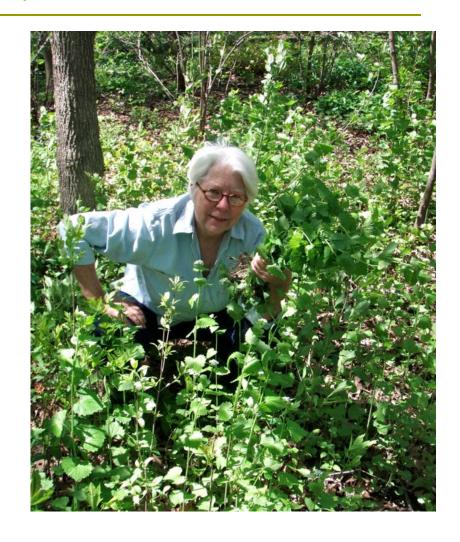
#### WEEDS ACROSS BORDERS



OKANOGAN COUNTY, WASH DOT, and B.C.

#### ON THE MOVE, Garlic mustard





### Public AWARENESS

ONLY IF PEOPLE
UNDERSTAND
WILL THEY SUPPORT
THE CONTROL OF
INVASIVE PLANTS!

