

Invasive Plants of the Verde Valley



What is a Weed?

Definition- State and federally identified species that are harmful to other plants or animals and replace native species.



The Effects of Weeds

Reduce ground cover

Reduce forage for wildlife

Deteriorate wildlife habitat

Out-compete native vegetation

Increase the cost of business

Deteriorate property values

REGULATIONS

FEDERAL

**Federal Noxious Weed
Act**

1975 & 1990

Organic Act of 1944

**Executive Order 13112
(1999)**

STATE of ARIZONA

**R3-4-244 –
Regulated and
Restricted Noxious
Weeds**

**R3-4-245 –
Prohibited Noxious
Weeds**

WHY DO ANYTHING?

\$ ECONOMIC

\$ Exotic plants from Europe, Asia, and Africa are invading 5000 acres per day of public land in the western U.S.

\$ \$122 billion/year in damages(US)

HEALTH

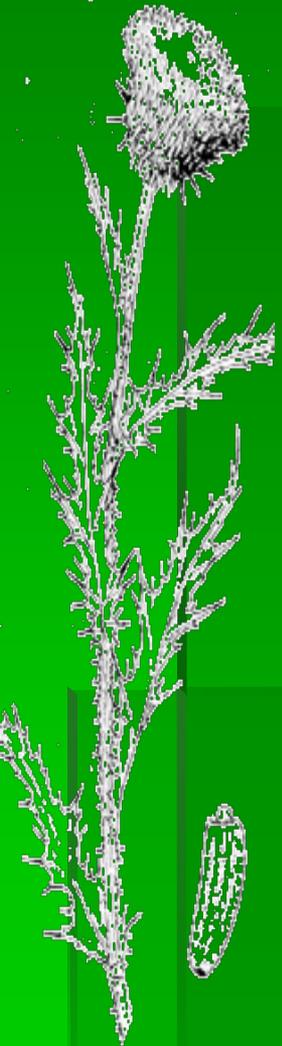
 Hay-fever and Poisonous Plants

 Parks/Trails/Schools/Open Spaces – Thistles, Spurges, Poison Hemlock and Knapweeds

VETERINARY/WILDLIFE

 Poisonous Plants – Yellow Star-Thistle, Russian Knapweed, Houndstongue, Leafy Spurge

 Loss of Wildlife Habitat and Food Chain



Propagules of Regeneration

- SEEDS

- FLOWERS

- SOIL
SEEDBANK

- RE -
VEGETATION

- ROOTS

- SOIL
DISTURBANCE

- SOILS
TRANSFER

How Are Weeds Spread?

- Wind
- Water
- Soil
- Vectors:
 - In the tires and undercarriage of vehicles
 - In animal hair and fur
 - In clothes, shoelaces and the tread of shoes
 - Ingestion by livestock & wildlife

Prevention, Control, Restoration

✓ **Weed Free Certification**

✓ **Awareness and Education**

✓ **Project Mitigation**

✓ **Mechanical**

✓ **Biological**

✓ **Chemical**

✓ **Native Seed Mixes**

✓ **Monitoring**

✓ **Re-treatment, if necessary**

Spray station



Mechanical Control



Chemical Control



Biological Control



Restoration



How You Can Help

- **Learn to identify the invasive weeds in your area.**
- **Don't inadvertently spread weed seed; stay on designated trails.**
- **Drive only on established roads; don't drive through or park in weed infested areas.**
- **Inspect and remove burs and seeds from shoes, clothing and pets.**
- **Leave all flowers as you found them. Do not pick.**
- **Spread the word about invasive weeds.**
- **Assist in controlling established weed populations by participating in weed pulling events.**

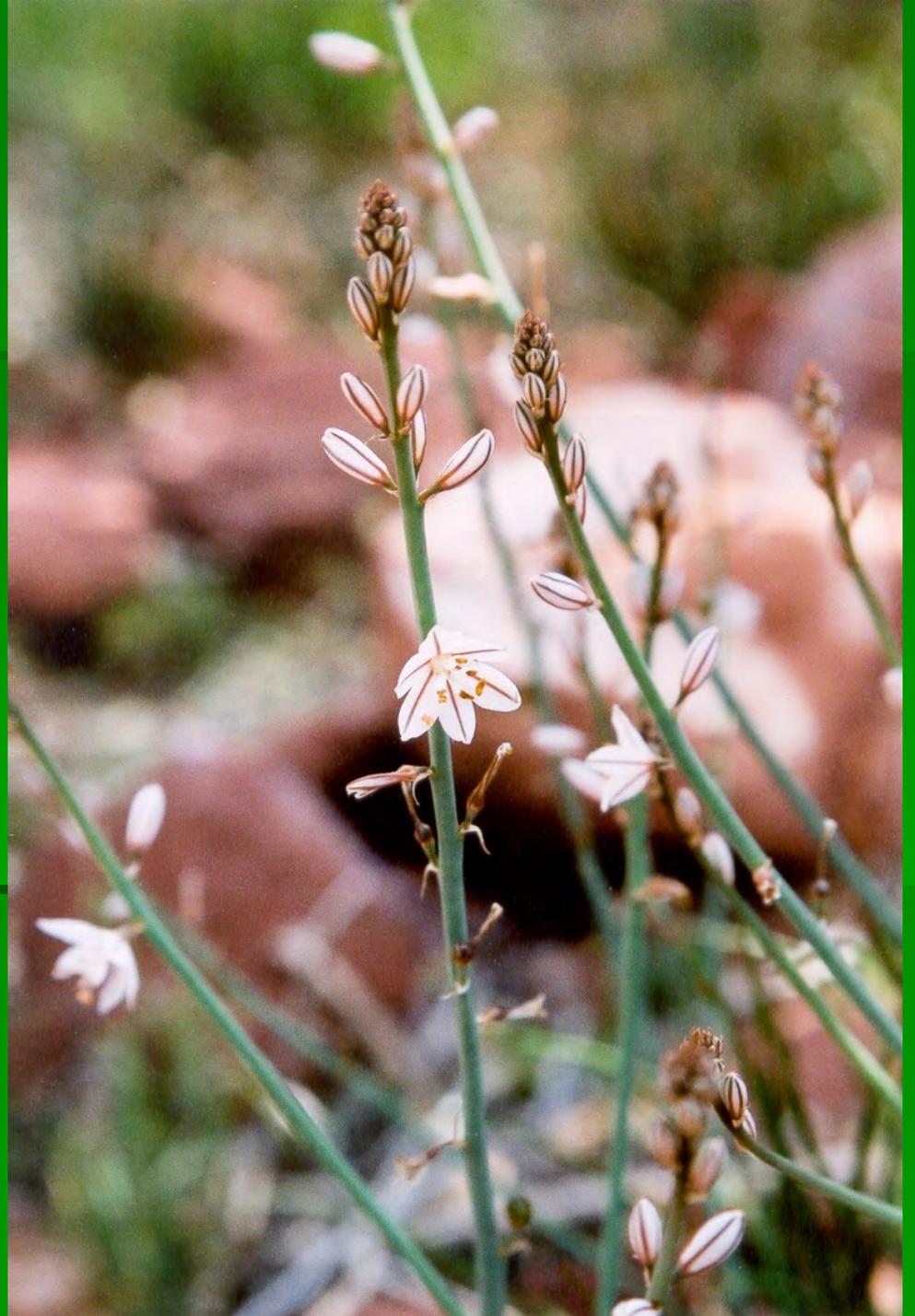
Asian mustard



Onion weed



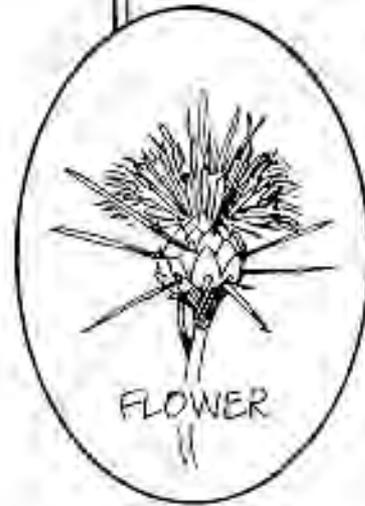
Onion weed





Yellow Starthistle Flower

Yellow Starthistle

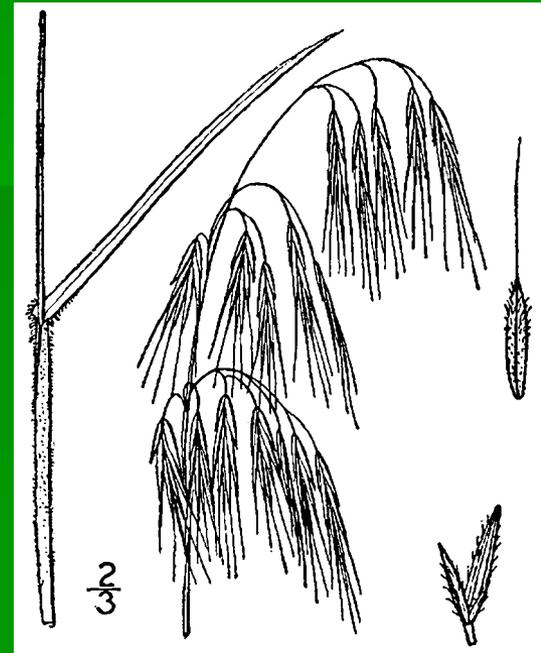




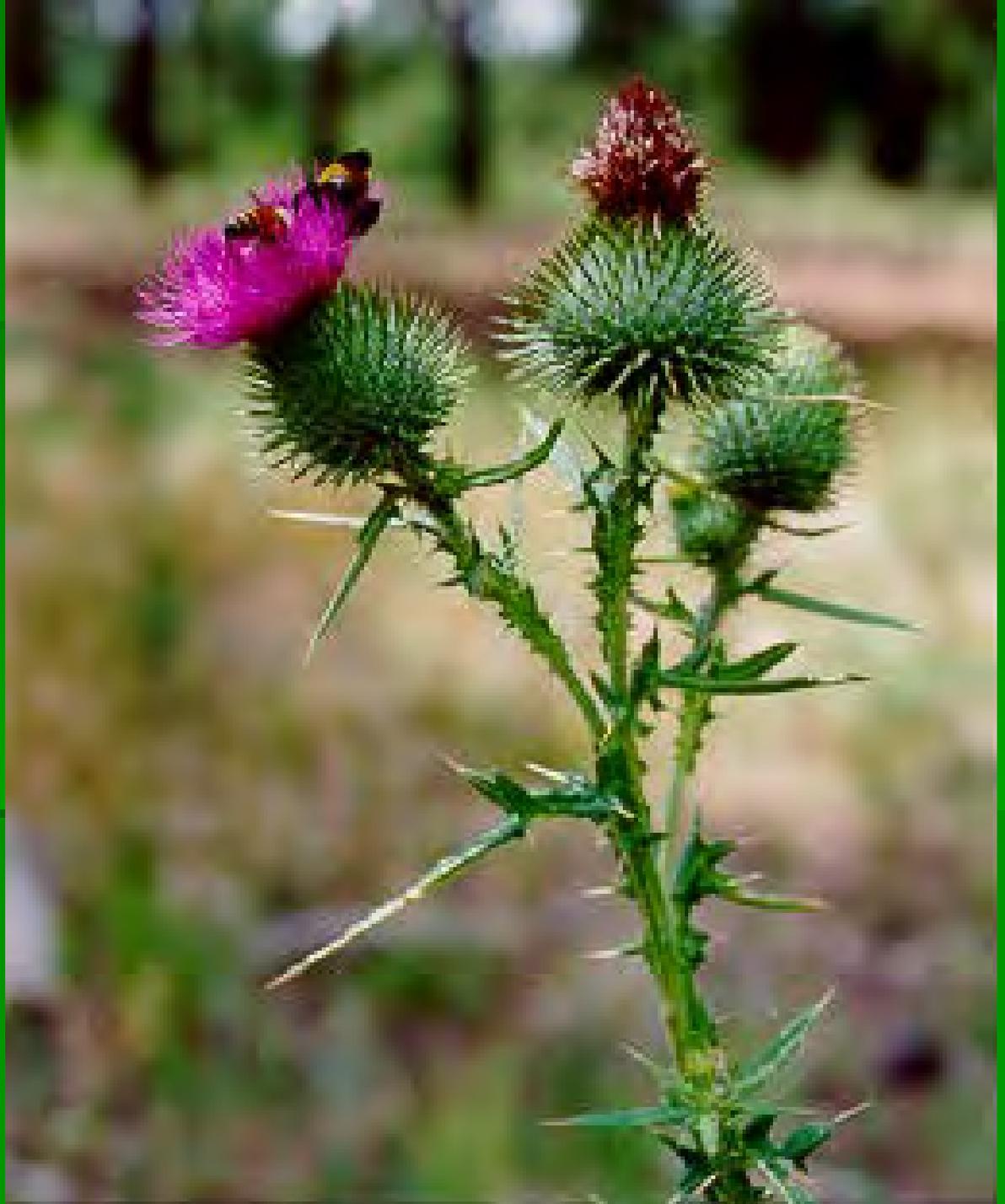
*Centaurea
melitensis*



-cheatgrass
-downy brome
-early chess
-military
grass



Bull
thistle in
the
Coconino
NF





Bull thistle Rosette

Cirsium vulgare Flower



Scotch thistle in Rio de Flag



Scotch thistle Flower



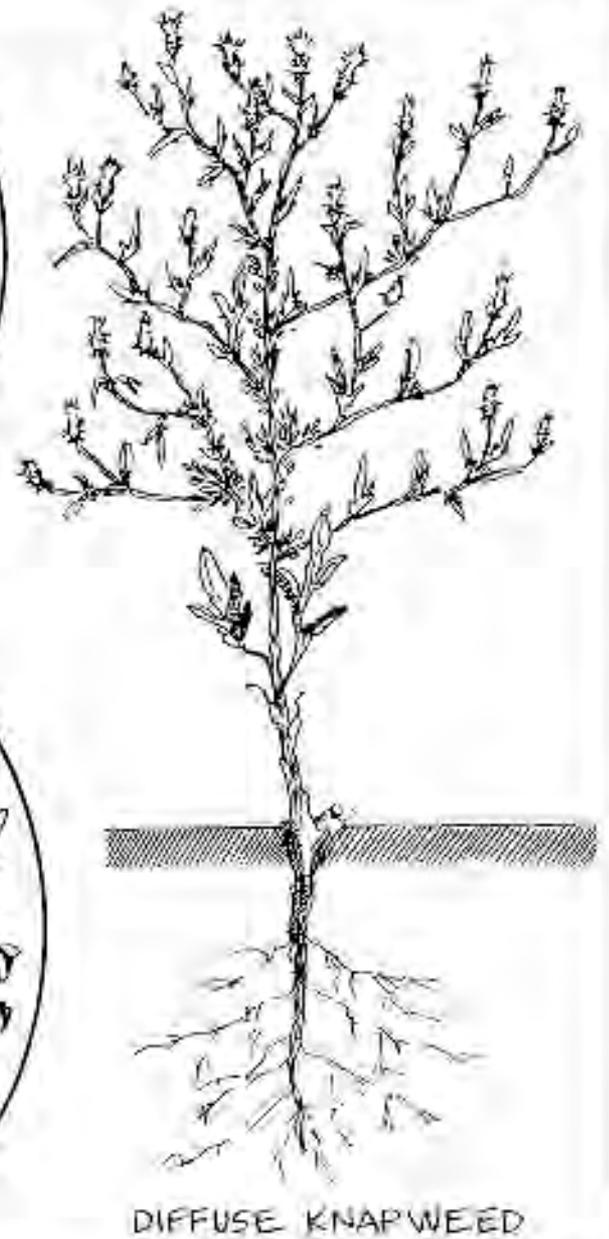
Diffuse knapweed rosette



*Centaurea
diffusa*
flower



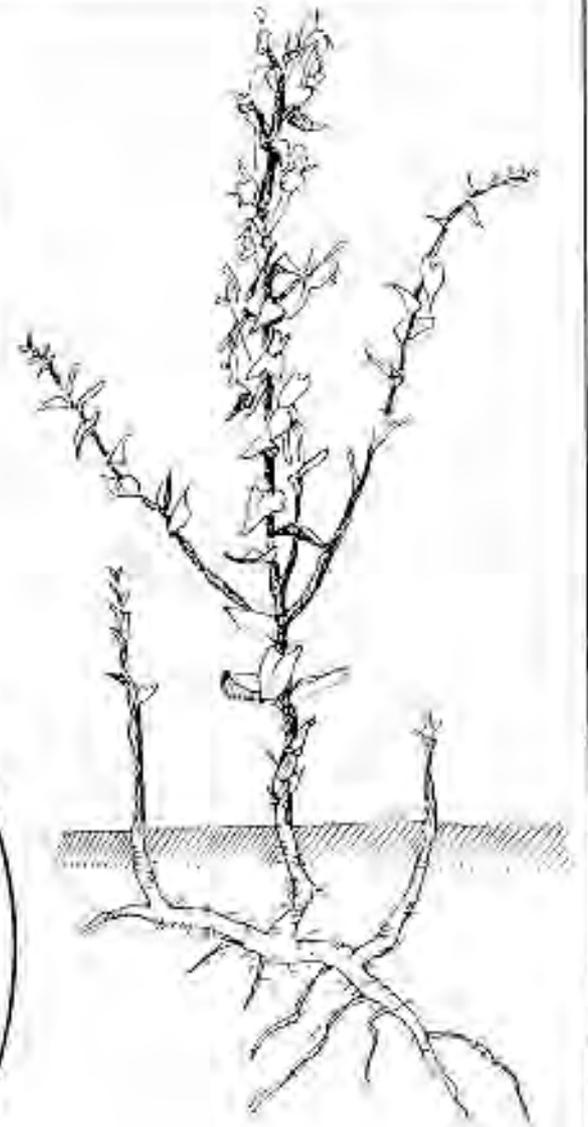
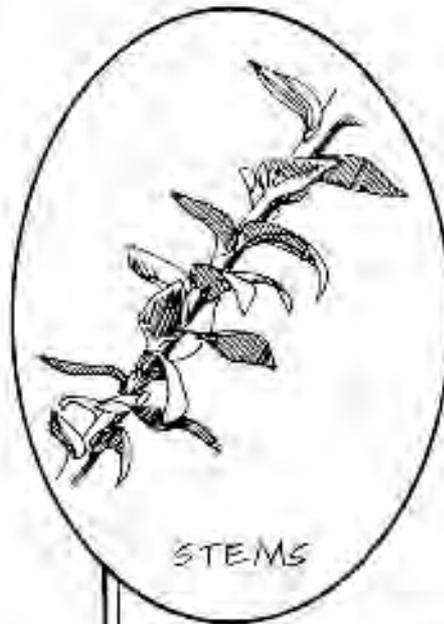
Diffuse knapweed





Dalmatian toadflax flower

Dalmatian toadflax





*Linaria
dalmatica*
crowding
out a
native after
a fire



Arundo – giant reed



Tamarisk



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Tree of Heaven





Tree of Heaven leaf