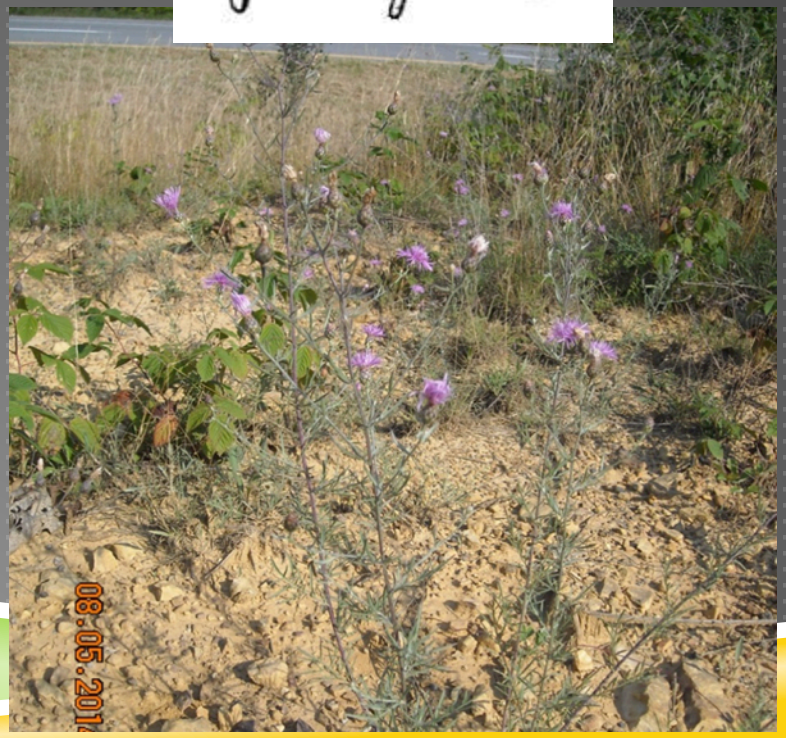
WEEDS OF INTEREST FROM 2016

1. SPOTTED KNAPWEED *CENTAUREA MACULOSA*

- Rosette
  - Rosette leaves are deeply lobed especially at the base, with lobes wider and oblong near the tip.

SPOTTED KNAPWEED *CENTAUREA MACULOSA*

- Leaves on flower stalk are alternately placed, have no petiolre Leaf size decreases towards the tip of the stem
- Leaf shape is variable – lower on the stem, a few lobes are often present. Near the top, leaves may be entire and quite small



SPOTTED KNAPWEED *CENTAUREA MACULOSA*

- The common name is derived from the spots formed by black margins on the ends of the flower bracts. These margins are also fringed.
- Introduced to North America (Canada) in the late 1800's in contaminated alfalfa seed and possibly in soil.
- Outcompetes native species on poor or disturbed sites where competition is weak.
- Found in ROWs, old fields, pastures, especially those with dry, gravelly, or sandy soil.
- Does not compete well with vigorous turf cover.

SPOTTED KNAPWEED FLOWER HEADS

- Purple to Pink
- 25 to 30 flowers per head – Composite family
- Flower heads found singly or in clusters of 2 or 3 at branch tips
- Flower heads persist on the plant

SPOTTED KNAPWEED *CENTAUREA MACULOSA*

- Latin name is derived from the word Centaur – a beast that was half human and half horse.
- Centaurs were reported to be a plague to humans
- maculosa means spotted or speckled
- 3 characteristics that promote knapweed's invasive nature
  1. Taproot is very efficient at obtaining water even on dry sites
  2. Capacity to produce large seed crops
  3. Ability to spread from site of initial establishment

Photo credit: Wikipedia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2. WILD CARROT *DAUCUS CAROTA*

- Rosette
  - Rosette of lacy leaves the first year
  - Long petioled, aromatic when crushed
  - Same genus and species as cultivated carrot

WILD CARROT -- YEAR TWO

- Flower stalk:
  - Upright branching stems
  - Slender
  - Bristley hairy
- Leaves:
  - Alternate
  - Pinnately compound
  - Leaves embrace the stem with a sheathing base

WILD CARROT *DAUCUS CAROTA*

Flowers

- Each flower is flat-topped and called an umbel
- Umbel consists of many tiny flowers – each with 4 petals
- Flowers are usually white, but may have cream or rose tones
- The center of the umbel may have a flower that is purple or red
- Purpose of red flower may be to attract insects
- Each flower produces 2 seeds
- The name Queen Ann's Lace – you guessed it -- was given because the flower resembles lace worn or created by Queen Ann of England or Ann of Denmark

WILD CARROT

- After bloom the umbel closes up into what looks like a birds nest – while the seeds mature.
- At least 3 methods of dispersal

1. The dried umbel detaches from the plant and becomes a tumbleweed.
2. The tiny fruit have hooks to attach to animal fur
3. Birds consume and distribute the seeds.

WILD CARROT *DAUCUS CAROTA*

History

- Introduced from Europe in the 1760's, probably as a contaminant in cultivated carrot seeds
- The First use of cultivated carrots as a storage root crop likely occurred over 1000 years ago

3. Teasel
Dipsacus sylvestris

- Herbaceous biennial
- Reproduces by seed
- Found in ROWs, old fields, pastures
- Can compete on poor sites

Credit: USDA

Teasel Rosette

Leaves:

- Toothed
- Heavily textured
  - Extrusions on upper leaf surface
- Often with spines on margins and underside of midrib

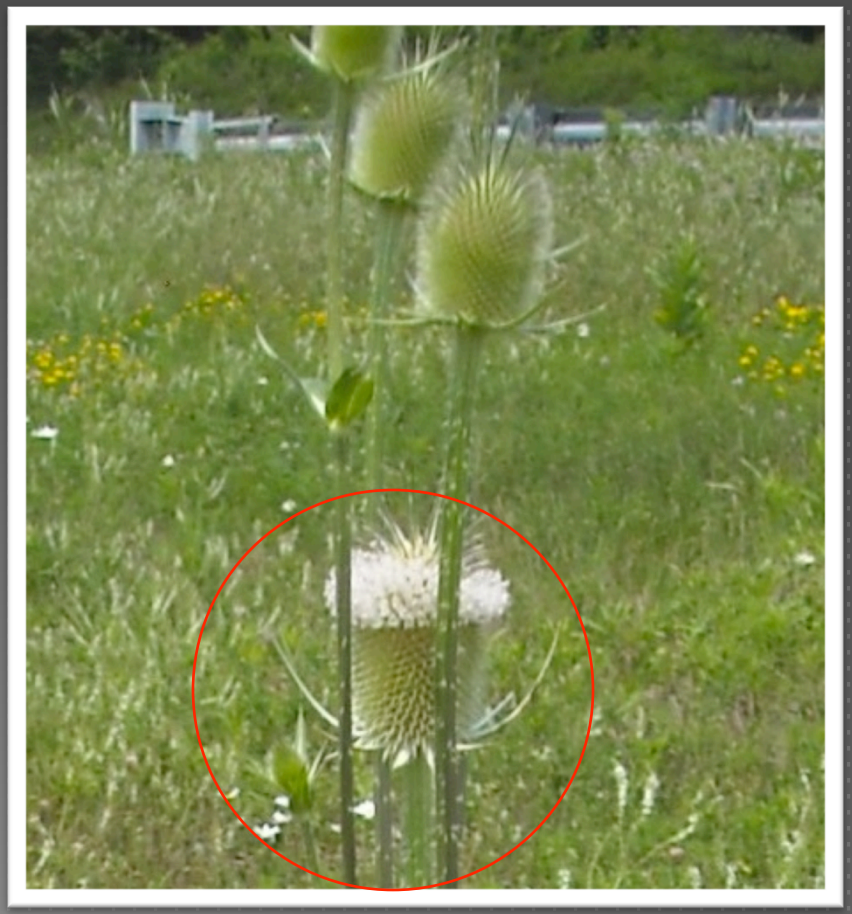
Teasel 2nd year

Upright Stem and Leaves

- Lanceolate
- Like the rosette, these leaves are often toothed on the margins and have spines on the underside of midveins
- Opposite, sessile, and forming a "cup" around the stem where they attach
- The "cup" may hold water

Teasel Flower

- Flower stem covered with stiff spines
- White or lilac
- Bloom begins as a donut in the center of the flower and spreads both upward and downward
- 4 petals
- Numerous slender bracts that become stiff hooked prickles at maturity



Dipsacus sylvestris Teasel History

- Introduced to the United States from Europe in the 1700's
- Cultivated to produce dried flower heads that were used to "tease" or "comb" wool fabric
- The common name teasel comes from this practice
- The Latin name *Dipsacus means "to be thirsty"* and likely refers to the ability of the "cups" formed by the leaf bases to collect water

4. BIENNIAL THISTLE

- Bull Thistle
- Musk Thistle
- Plumeless Thistle

- Biennial Thistles were introduced to the U. S. from Europe and Asia as seed contaminants

BIENNIAL THISTLES vs. CANADA THISTLE

BIENNIAL THISTLES

- BIENNIAL LIFE CYCLE
  - Rosette year one
  - Flower and seed production year two
- SPINES ON STEM
- REPRODUCES FROM SEED

CANADA THISTLE

- PERENNIAL LIFE CYCLE
- CREEPING ROOT SYSTEM
  - COLONY FORMING
- NO SPINES ON STEM
- REPRODUCES FROM BUDS ON ROOT SYSTEM AND SEED

BIENNIAL THISTLE

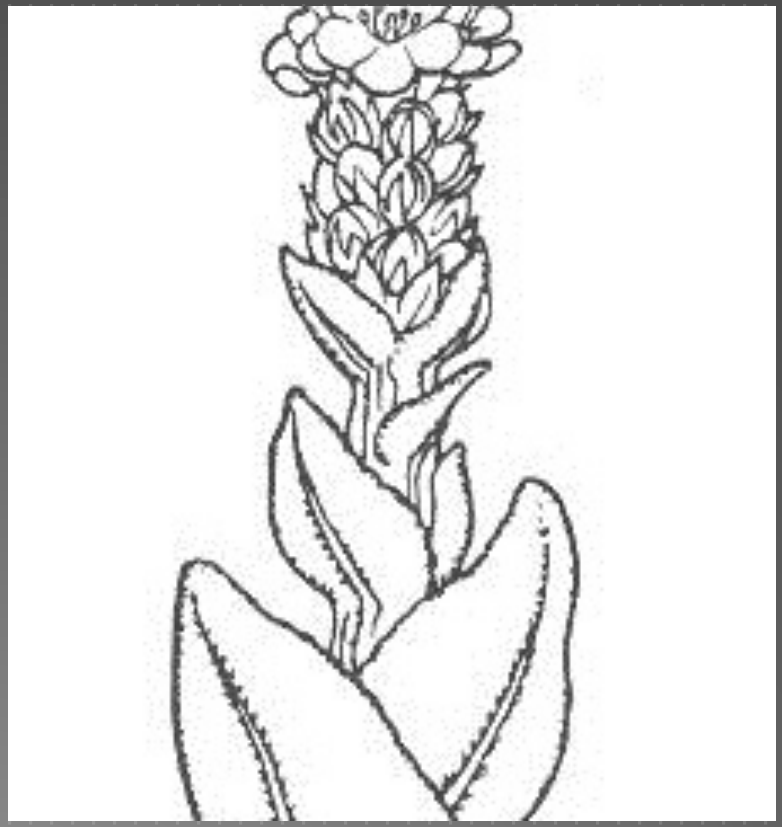
- BIENNIAL THISLES, LIKE MOST BIENNIAL WEEDS ARE BEST AT ESTABLISHING ON BARE GROUND.
- CANADA THISTLE, ON THE OTHER HAND CAN MORE EASILY SPREAD AND INVADE AREAS WITH EXISTING VEGETATION

5. COMMON MULLEIN
VERBASCUM THAPSUS

- First Year:
- Rosette leaves Are 6 to 18 inches long, oblong, densely wooly

COMMON MULLEIN FLOWER STALK

- Flower stems 3 to 6 feet tall
- Flower about 1 inch in diameter, sulfur-yellow, dense yellow
- Individual flowers bloom over a long period of time
- Upper leaves smaller and more pointed
- Flower stalk is covered with bristly leaves and leaf tissue
- Leaves attach to the stem without petioles creating a wide attachment point that crates a winged appearance



COMMON MULLEIN SEED FACTS

- A single plant can produce 100,000 seeds per year.
- Seeds can persist in the soil 100 years.
- Seeds need sunlight to germinate so they wait in the soil until other plants die or are removed.

Seed stalks persist into winter, covered with leaf tissue

COMMON MULLEIN HISTORY AND FACTS

- Many herbal remedies are made from plant parts (leaves, seeds, roots)
- Introduced to Virginia from Europe during colonial days
- The star shaped hairs on the plant surface are called trichomes and may aid in reducing transpiration and discouraging herbivory
- Can grow on poor soils but cannot compete with a dense plant population

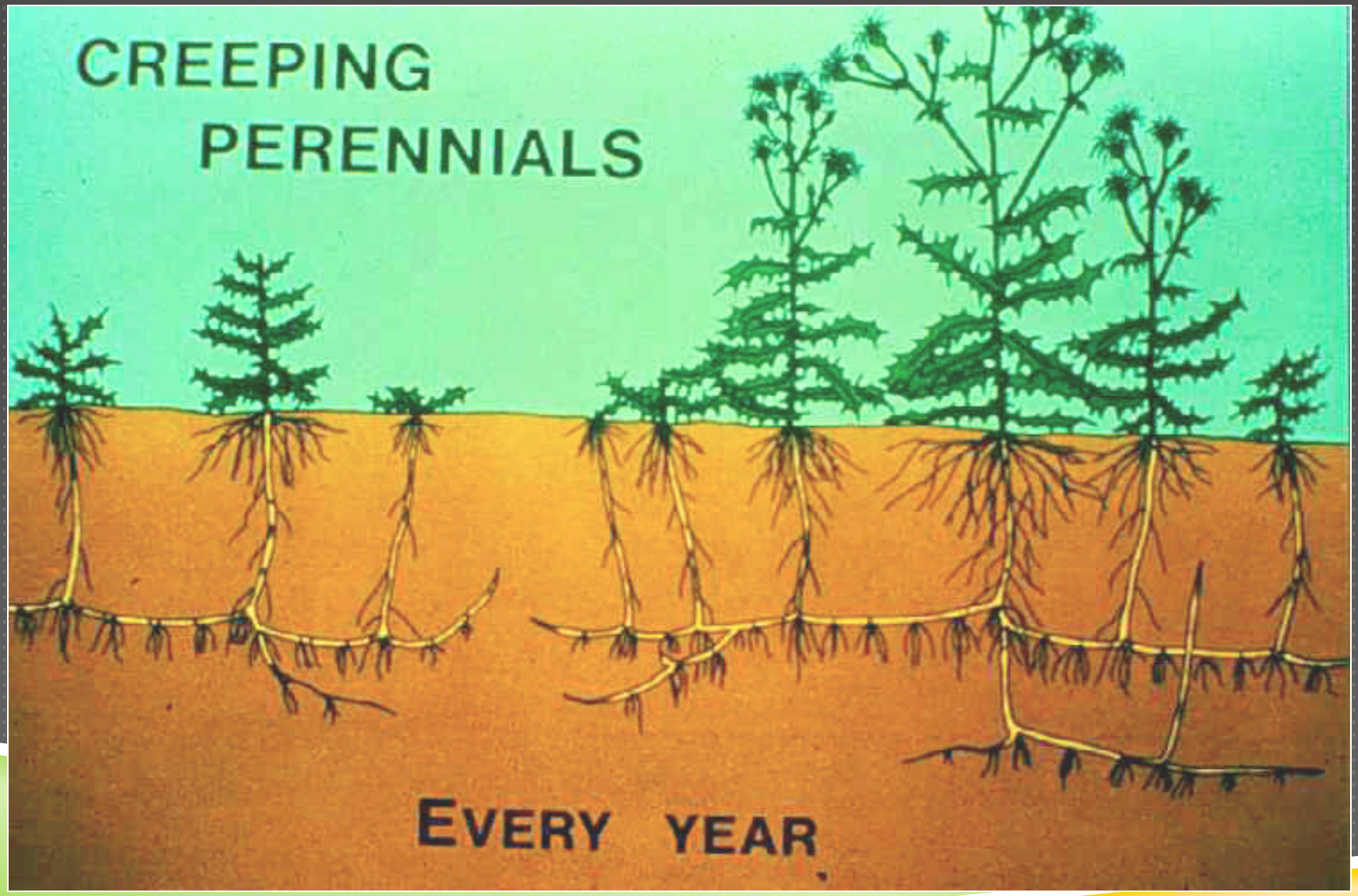
COMMON MULLEIN

Rosettes often remain green through the winter

6. CANADA THISTLE

- Key features
  - Crinkled leaf edges with spiny margins
  - No spines on stem
  - Pink/purple flower heads
  - Horizontal roots
- Lifecycle
  - Creeping perennial

CANADA THISTLE




Canada Thistle can invade areas
with existing vegetation,
although vigorous turf provides
some of the best competition

7. CURLY DOCK *RUMEX CRISPUS*

- A perennial with a taproot
- Prefers moist soil but can grow in most environments
- Found in every state in the US and is considered one of the most widely distributed weed in the world
- Introduced to the US from Europe and Asia in the 1600's
- Begins life as a rosette


Credit: Univ. of Missouri IPM

CURLY DOCK *RUMEX CRISPUS*

- Can flower twice per year
- Seed stalk starts out green but turns brown as it matures
- Each stalk can produce hundreds to thousands of seeds
- Seed can remain in the soil for 80 years, geminates at various times during the year and are cued to germinate by various light and temperature variations

8. COMMON POKEWEED (*PHYTOLACCA AMERICANA*)

- Native to the eastern½ of the US
- Prefers low, rich, somewhat disturbed, gravelly soils
- A large bushy, herbaceous, perennial
- Produces an enormous taproot and smooth succulent red/ purple stems.

COMMON POKEWEED

- Fruit appear in grape like clusters of dark purple berries when mature
- This species reproduces from seed.
- In the nursery, this is usually one of the first plants to break through the preemergent weed control

COMMON POKEWEED

- The plant is considered poisonous, although all manner of folk remedies have been made from various parts
- Ingestion of any part of pokeweed is not recommended

9. EVENING PRIMROSE

- A biennial or winter annual; occasionally a summer annual
- Erect, reaching up to 6 feet in height
- Produces an extensive taproot

EVENING PRIMROSE

- Leaves are elliptical in outline, narrow, and have untoothed margins.
- Leaves have a distinctive white or pink midvein

EVENING PRIMROSE

- Flowers are borne on the upper part of the plant and are sessile (without stems)
- Flowers are ¾ to 2 inches wide and consist of 4 bright petals
- Stems are fibrous and appear almost woody

Questions?