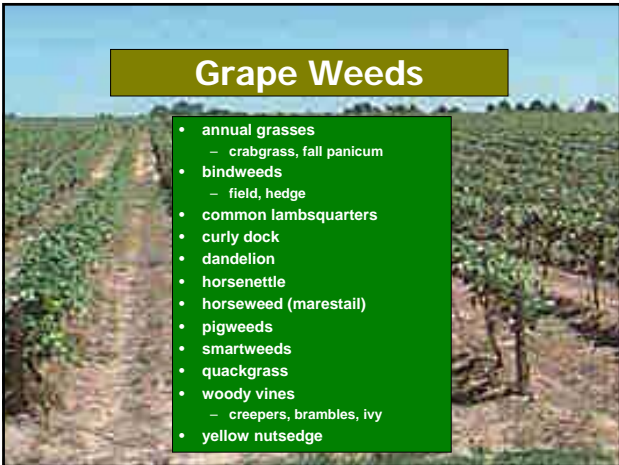


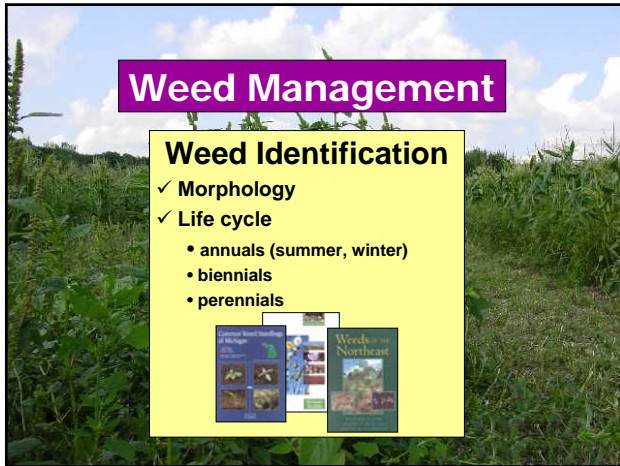
Identification of Common Grape Weeds

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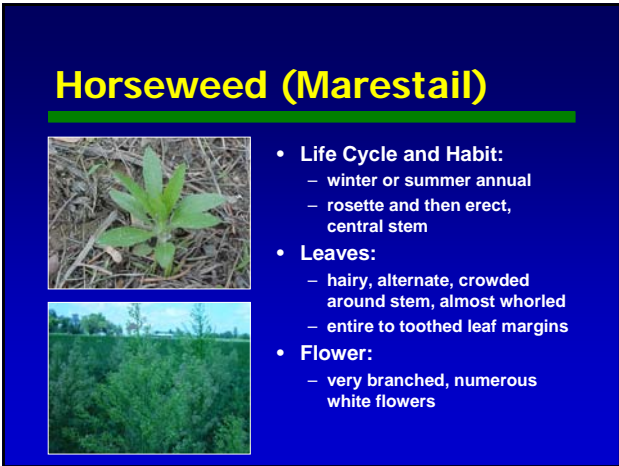
Grape Weeds

- annual grasses
 - crabgrass, fall panicum
- bindweeds
 - field, hedge
- common lambsquarters
- curly dock
- dandelion
- horsetail
- horseweed (marestalk)
- pigweeds
- smartweeds
- quackgrass
- woody vines
 - creepers, brambles, ivy
- yellow nutsedge



Weed Management

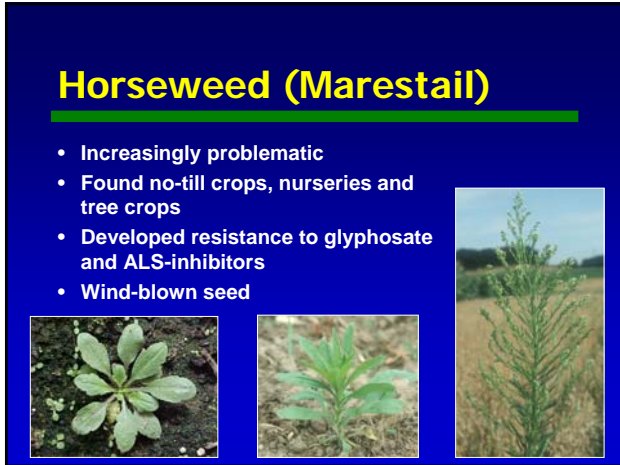
- ### Weed Identification
- ✓ Morphology
 - ✓ Life cycle
 - annuals (summer, winter)
 - biennials
 - perennials
- 



Horseweed (Marestalk)

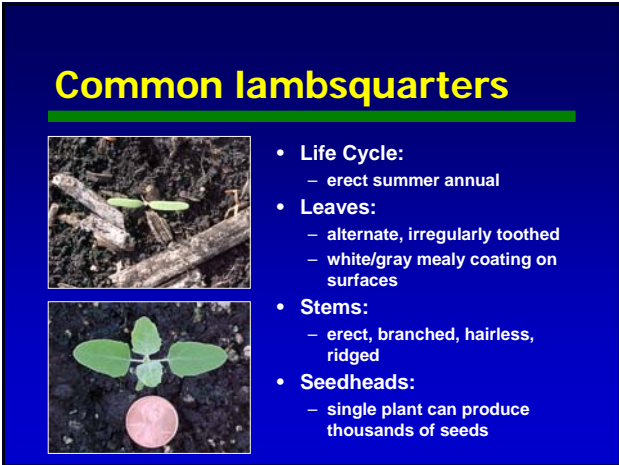


- Life Cycle and Habit:
 - winter or summer annual
 - rosette and then erect, central stem
- Leaves:
 - hairy, alternate, crowded around stem, almost whorled
 - entire to toothed leaf margins
- Flower:
 - very branched, numerous white flowers



Horseweed (Marestalk)

- Increasingly problematic
- Found no-till crops, nurseries and tree crops
- Developed resistance to glyphosate and ALS-inhibitors
- Wind-blown seed



Common lambsquarters



- Life Cycle:
 - erect summer annual
- Leaves:
 - alternate, irregularly toothed
 - white/gray mealy coating on surfaces
- Stems:
 - erect, branched, hairless, ridged
- Seedheads:
 - single plant can produce thousands of seeds

"Pigweeds"



- **Life Cycle:**
 - summer annuals
- **Leaves:**
 - alternate, egg-, oval-, to diamond-shaped
 - various fine hairs
 - notch in apex
- **Stems:**
 - green to reddish in color
- **Seedhead:**
 - few to many branches
 - numerous black shiny seed

Large crabgrass



- **Life Cycle and Habit:**
 - prostrate to ascending summer annual
 - roots at nodes
- **Ligule**
 - membranous
- **Leaves:**
 - blade / sheath hairy
 - blades arched, short, tapered
- **Seedhead**
 - 3 - 10 spikes

Fall panicum



- **Life Cycle and Habit:**
 - summer annual, erect to sprawling
- **Ligule**
 - hairy
- **Leaves:**
 - blade / sheath hairless
 - no hair on sheath margin
 - prominent midrib
- **Seedhead**
 - large, freely branched, spreading panicle

Quackgrass



- **Life Cycle and Habit:**
 - spreading, perennial grass with sharp-tipped rhizomes
 - aggressive
- **Ligule**
 - short, membranous
- **Auricle**
 - clasping
- **Seedhead**
 - upright, spikelets stepwise

Yellow nutsedge



- **Life Cycle and Habit:**
 - grass-like perennial with rhizomes
 - tubers
- **Leaves:**
 - yellowish-green, shiny
- **Stem**
 - solid, triangular
- **Seedhead**
 - yellowish to brownish, flattened spikelets

Dandelion



- **Life Cycle and Habit:**
 - tap-rooted perennial that forms only basal leaves
- **Leaves:**
 - deeply lobed to toothed that point toward the leaf base
 - exude a milky juice
- **Flower:**
 - bright, yellow flower heads
 - feathery pappus attached on a long stalk

Horsenettle



- **Life Cycle and Habit:**
 - erect perennial, spreads by creeping rhizomes
- **Leaves:**
 - alternate, egg-shaped with wavy to lobed margins
 - prominent prickles on stems, leaf veins, midribs, and petioles
- **Flower and Fruit:**
 - white to violet flowers
 - yellow berries (green when mature)

Smartweed



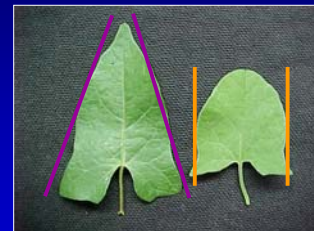
- **Life Cycle and Habit:**
 - ascending, branched summer annual
- **Stems:**
 - green to reddish
 - swollen and jointed nodes
- **Leaves:**
 - alternate, long, pointed
 - no hairs on ocrea
- **Flower:**
 - bright pink to white

Field & Hedge bindweed



- **Life Cycle and Habit:**
 - perennial with rhizomes
 - climbing, trailing, viny stems
- **Leaves:**
 - alternate
 - differ in shape
- **Flower:**
 - white, sometimes pink petals
 - funnel-shaped tube

The bindweeds



Hedge bindweed

Field bindweed

Curly dock



- **Life Cycle and Habit:**
 - tap-rooted perennial
- **Leaves:**
 - basal rosette of long, wavy-margined leaves (bacon-strip)
 - shiny
- **Flower:**
 - elongating flowering stems
 - in clusters
 - reddish brown at maturity

Common mullein



- **Life Cycle and Habit:**
 - biennial with large, basal rosette
- **Leaves:**
 - densely woolly-hairy with grayish-green appearance
- **Seedhead**
 - tall, yellow-flowered seedheads that persist into the winter

Virginia-creeper



- Life Cycle and Habitat:
 - woody perennial vine
 - climbs by tendrils with adhesive disks
 - tolerates wide range of soils
 - weed of landscapes, orchards, vineyards
- Leaves:
 - alternate, palmately compound
 - 3-7, but usually 5 leaflets
 - toothed margins

Trumpet-creeper



- Life Cycle and Habitat:
 - woody perennial vine
 - climbs by aerial roots and suckers
 - weed of landscapes, orchards, vineyards
- Leaves:
 - alternate, pinnately compound
 - 7-11 leaflets
 - toothed margins



PRE Herbicides

- Casoron (dichlobenil)
- Devrinol (napropamide)
- Goal (oxyfluorfen)
- Karmex (diruon)
- Kerb (pronamide)
- Princep (simazine)
- Prowl (pendimethalin)
- Solicam (norflurazon)
- Surflan (oryzalin)

- Inhibit root and shoot growth
- Residual control of annual grass and broadleaf weeds
- Apply before emergence
- Can tankmix with non-selective herbicide for existing vegetation
- Many can be applied in fall or spring

POST Herbicides

Selective "Grass Killers"

- Fusilade DX (fluazifop)
- Poast (sethoxydim)

- Only POST grass control
- No broadleaf control
- Add COC or NIS

Non-selective

- Rely (glufosinate)
- Roundup / Touchdown (glyphosate)
- Gramoxone (paraquat)

- Annual and perennial grass / broadleaf weeds
- Carefully directed