



Winning the Race for Resources – Reducing Competition for Oak

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Importance of Competition Management for Oak

- ▶ Increased wildlife habitat
- ▶ Improves the growth, timber quality and mast production of young trees
- ▶ Improves growing conditions for other types of native vegetation



Crop Tree Release

- ▶ Locate mast-bearing crop trees
- ▶ Remove competition by girdling or felling tree
 - ▶ Girdled trees provide wildlife habitat



Managed Grazing

- ▶ Use a high density of animals for a short duration of time
- ▶ Livestock used to control invasive species
 - ▶ Livestock browse on nearby vegetation allowing for treatment of undesirable vegetation
- ▶ Practice works best when used in conjunction with other practices

Before



After



Chemical Control

- ▶ Cut-stump
 - ▶ Effective on small and large sized plants
 - ▶ Several herbicide options
- ▶ Foliar
 - ▶ Most effective on large populations
- ▶ Basal bark
 - ▶ Use on woody species 5" or less in diameter
 - ▶ Must mix with oil-compatible products

Physical/Mechanical Removal

- ▶ Weed wrench
- ▶ Hand pull
- ▶ Tractor
- ▶ Forestry mower



Native vs. Non-Native Competition

- ▶ Both native and non-native plants can exhibit “invasive” tendencies
- ▶ Faster growing trees often out compete slow-growing oaks



Boxelder (*Acer negundo*)

- ▶ Native
- ▶ Fast growing tree of irregular shape
- ▶ Common in wet soils and river bottoms



Ironwood

(*Ostrya virginiana*)

- ▶ Native
- ▶ Leaves closely resemble elm leaves
- ▶ Creates a “closed” forest canopy



Sugar Maple (*Acer saccharum*)

- ▶ Native
- ▶ Shade tolerant
- ▶ Grows to heights of around 80'
- ▶ Only an issue when directly competing with oak or other slow-growing tree species



Bush Honeysuckle

(*Lonicera tatarica*)

- ▶ Non-native
- ▶ Grow 6-12' tall
- ▶ Shaggy, peeling bark



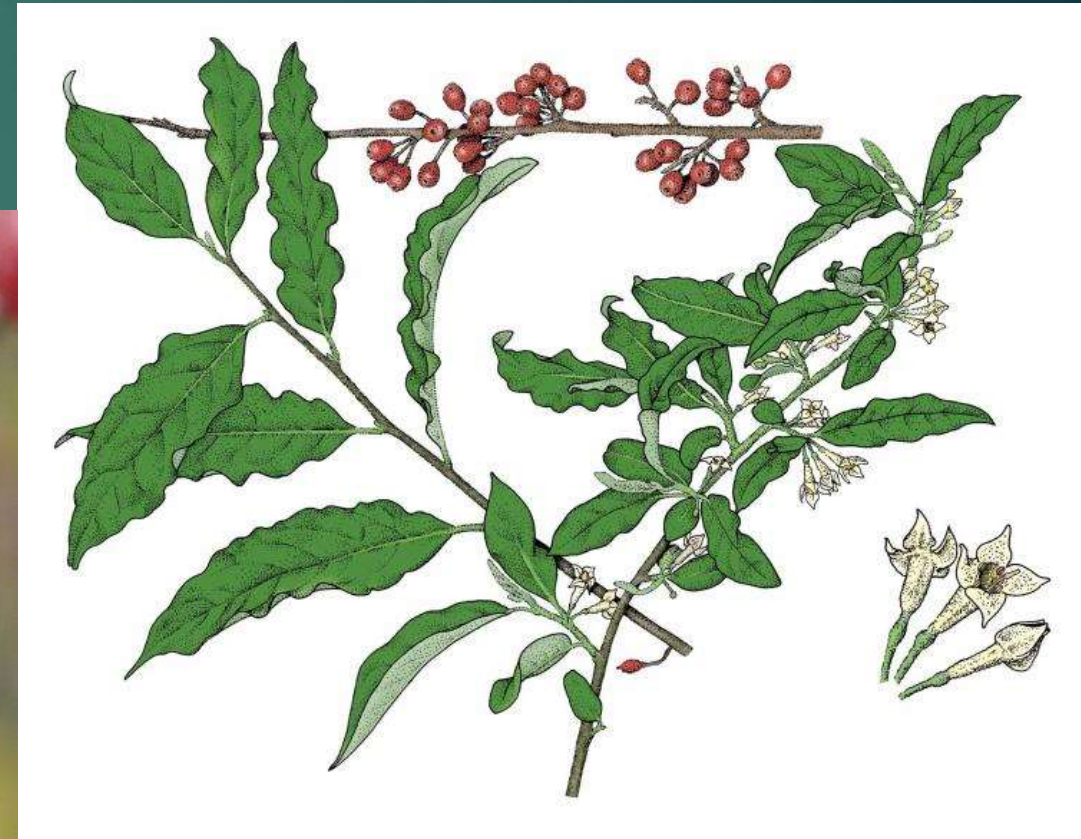
Honeysuckle Control

- ▶ Cut stump
 - ▶ Glyphosate
- ▶ Managed Grazing
 - ▶ Follow up with spraying or multiple grazing applications to combat resprout
- ▶ Weed wrench/hand pull
 - ▶ Shallow root system



Autumn olive (*Elaeagnus umbellata*)

- ▶ Non-native
- ▶ Alternate leaves, silver-gray on underside, wavy edges
- ▶ Reddish fruit with silver scales



Autumn Olive Control

- ▶ Hand pull small plants
- ▶ Forestry mow
 - ▶ Follow up treatment necessary
- ▶ Managed grazing
 - ▶ Follow up treatment necessary
- ▶ Cut stump
 - ▶ Glyphosate

Common Buckthorn (*Rhamnus cathartica*)

- ▶ Non-native
- ▶ Easiest to identify in fall



Common Buckthorn Control

- ▶ Weed wrench/hand pull
- ▶ Forestry mow
- ▶ Prescribed grazing
- ▶ Basal bark treatment with triclopyr
- ▶ Cut stump
 - ▶ Glyphosate
 - ▶ Triclopyr

Japanese barberry (*Berberis thunbergii*)

- ▶ Dense, spiny shrub
- ▶ Inner bark fluorescent yellow
- ▶ Tick habitat



Japanese Barberry Control

- ▶ Hand remove small plants
- ▶ Foliar
 - ▶ Dense infestations
 - ▶ 2,4-D
 - ▶ Glyphosate
- ▶ Forestry mowing
 - ▶ Will require multiple treatments