

Newer Weeds Invading the Landscape

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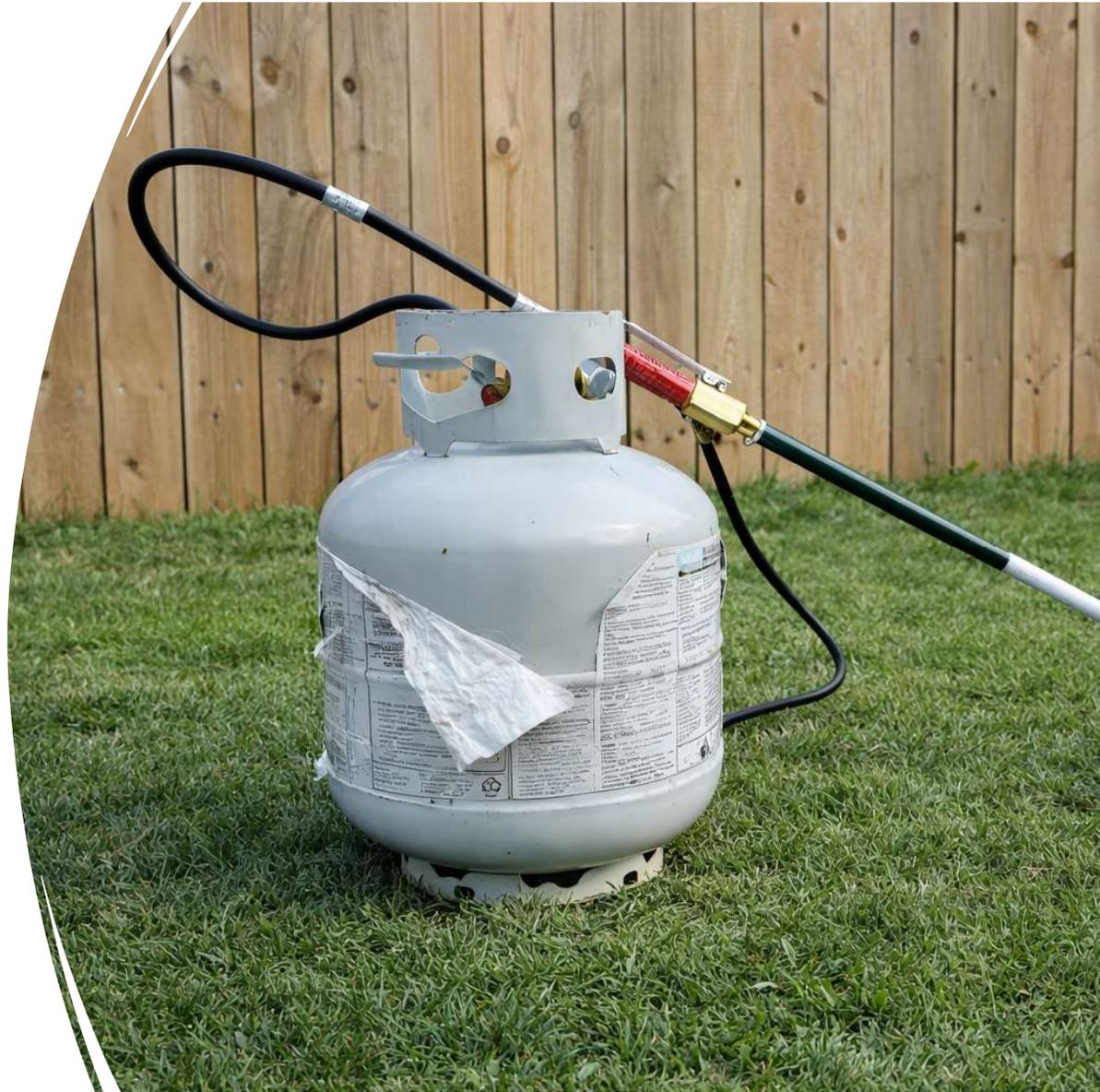


Solarization



Weed Torch

- **Use your head**
- Bare ground
- Rock mulch
- Paver areas
- Little plant debris on the ground



Mulching

- 3-4 inches
- Cardboard underneath?
- Rock Mulch
- Plastic



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Cardboard or Newspaper Underlayment



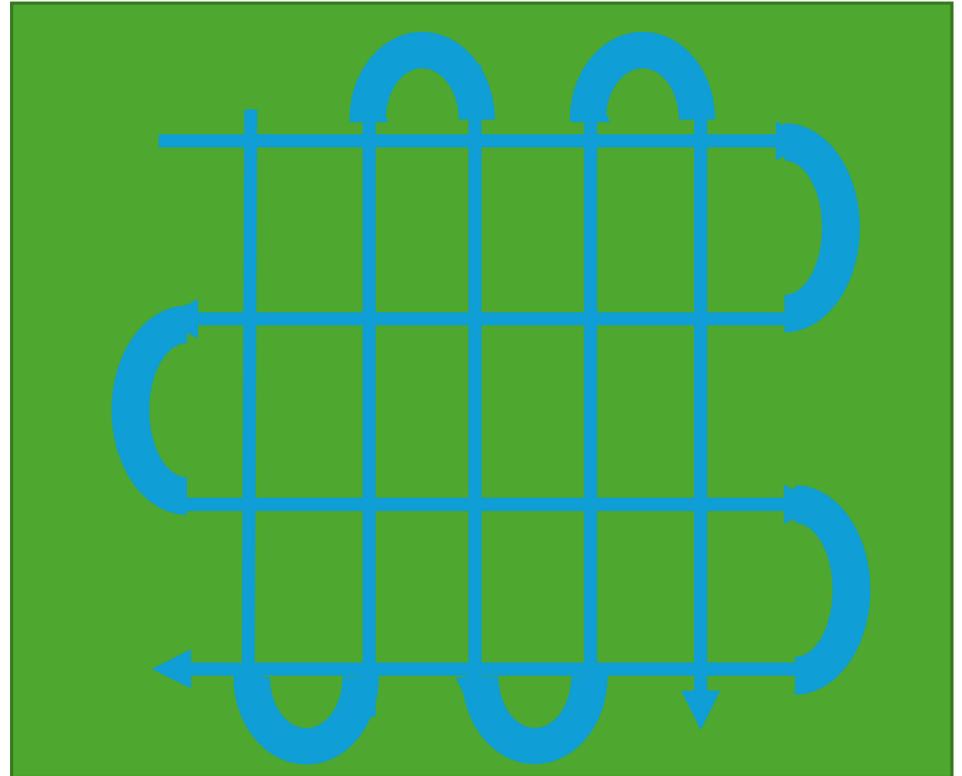
Cultivation

- Soil quality is reduced with frequent tilling. 2X annually is the maximum recommended.
- Use a gardening hoe or similar instead.
- Infrequent cultivation can spread perennial weeds.



Applying With a Broadcast Spreader

- Apply two half applications
- Go in two directions perpendicular to each other in a grid pattern
 - Insecticides
 - Herbicides
 - Fertilizer





Adjuvants

- Spreader-stickers
- Surfactants
- Crop oil or MSO (grass killers)
- Water-soluble nitrogen
- pH-adjusters
 - Increases the half-life of certain herbicides.

Unregistered Herbicides

- Many weeds in the urban landscape do not have many herbicides registered for control.
 - If other weeds that are on the label are present, you might be able to spray.
 - The site also must be on the label.
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- Examples include preemergent products like isoxaben (broadleaf weeds), prodiamine, and pendimethalin.
 - Others may include Quinclorac for summer weed control.

Whitetop (Hoary Cress)

Lepidium draba

- Spread several feet in one year due to rhizomes
- 1,200-4,800 seeds produced per plant
- Perennial
- Blooms from April-June
- Robs soil of nutrients and moisture
- 76% of its biomass is below ground
- Spreads rapidly in poorly maintained lawns and landscape beds.
- Tolerant of salty soils





Whitetop

- Toxic to livestock
- Rapidly spreading in the Western United States
- Hosts several viruses and pests that can potentially spread to crops.
- Can grow in areas contaminated with heavy metals.

Whitetop Control

- Smothering with cardboard and mulch
- Solarization
- Cultivation
- Herbicide options
 - Glyphosate
 - 2,4-D
 - Various lawn weed killers
 - Quinclorac???



Wild Parsnip

(*Pastinaca sativa*)

- Same species as garden parsnip
- Wild populations have high levels of **furanocoumarins** that cause allergic reactions on exposed skin when exposed to UV light.
- Damage is similar or worse than poison ivy/oak, including blistering, rash, dermal pain, and skin discoloration.
- Skin is more susceptible to burning for 1-2 years, and discoloration may last for the same period.



Wild Parsnip

(*Pastinaca sativa*)

- Common along roadsides, ditch banks, flowerbeds, improperly maintained lawns, and other disturbed areas.
- Seems not to be very drought-hardy.
- Biennial or short-lived perennial
- Livestock susceptible



Skin Damage

- Ointments
- Topical pain relievers
- Analgesics
- Avoid abrasive clothing
- See a doctor





Wild Parsnip Lifecycle

- Biennial
 - Rosette the 1st year
 - Flowers on hollow stalks to 6 feet tall in the second year
- Leaves are semi-evergreen in warmer areas.
- It may live 3-4 years if it cannot collect enough energy to flower in the second year.

Wild Parsnip Control Options

- Wear proper protective clothing and gloves.
- Cut tap root 2-3 inches below ground.
- Remove larger plants with shovels, pitchforks, and rakes.
- Carefully cut seedheads away if present to avoid spreading seeds.
- Place plant remains in plastic garbage bags.
- Mow just before flowering. Monitor regrowth and mow if needed. Plants likely will not have time to mature seed if mowed at this time.
- Solarization, or a weed torch, if appropriate.

Wild Parsnip Chemical Control

- No organic products labeled. If used, spray before flowering.
- Dicamba, 2,4-D, glyphosate, metsulfuron
- Spray in late fall when plants are in the rosette stage or in spring before flowering.
- If found in lawns, lawn weed killers containing 2,4-D and dicamba should control it.
- Monitor for seedlings in areas where it was present for several years.

White Bryony

Byronia alba

- Vining perennial native to Europe into Iran.
- Member of the squash family.
- Looks like wild grapes.
- Germinates/breaks dormancy in the spring, flowers late spring to early summer.
- Seed produced in late summer and fall.



White Bryony

- Invasive in riparian areas in partial shade-sun
 - Rivers/Streams
 - Lakes/Ponds
 - Ditch banks
 - Wet areas
- Vines grow up to 40 ft in one year.
- Spread by birds.
- Sometimes called the Kudzu of the north.
- Seeds and roots are highly toxic. 40 seeds can kill.
- Sap may cause blisters.



White Bryony Control

Non-Chemical

- Dig root tubers 3-4 inches underground.
- Removing the entire tuber is better.
- Pull seedlings.
- Long-term monitoring is essential, no matter what method is used.

Herbicide Options

- Spray in the fall.
- Glyphosate is the only registered treatment. Spraying entire plants can be problematic.
- Cut-tuber treatments.
- Preemergent, 2,4-D, dicamba, triclopyr???
- Avoid off-target spraying.

Wild Licorice (*Glycyrrhiza lepidota*)

- Native to the West.
- It's perennial and grows in riparian areas along rivers and streams.
- Grows 18-36 inches tall.
- Flowers from June-August.
- Produces a bur-type seed head that sticks to fur and clothing.



Wild Licorice

- Mostly problematic in pastures bordering rivers and streams where there is constant soil moisture.
- It spreads rapidly due to spreading by rhizomes.
- It may invade lawns and landscape beds.
- Nutritious to livestock, but they do not like it.



Wild Licorice Prevention and Control

- Scout pastures and landscape areas frequently.
- Maintain vigorous plants with proper nutrition of the lawn and pasture areas.
- Keep mowing equipment clean.
- Smother with 3-4 inches of mulch or solarize small patches.
- Triclopyr, dicamba, glyphosate
- Lawn weed killers will likely suppress or control.
- Focus on 4-way lawn weed killers like 4-Speed XT, SpeedZone, Q4-Plus, T-Zone, etc.
- Spray in the fall around the first frost.
- Quinclorac alone may suppress it in the summer.

Field Bindweed

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Field Bindweed

Identification

- Vine
- White flowers

Culture

- Perennial
- Deeply rooted
- Seeds viable for 20-50 years
- Drought hardy
- Spreads
 - Rhizomes, stolons and seeds

Field Bindweed Control

Cultural Management Strategies

What Works Best

Prevention and persistence are key

Cultural Control Practices

- Maintain a dense, healthy lawn **or** crop stand
 - Competitive plants suppress bindweed spread
- Remove seedlings early
 - Target young plants in spring
- Intensive cultivation
 - Cultivate every 2-3 weeks
 - Plan for 2-7 years of repeated effort



Important Takeaway

Field bindweed requires consistent control over several years.

Short-term efforts alone are rarely successful.



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Field Bindweed Control

Selective

- Trimec
- Weed-B-Gone
- SpeedZone
- PowerZone
- 4 Speed or 4 Speed XT
- Weed Free Zone
- Q4plus (Quinclorac)
- Weed-B-Gone plus Crabgrass Control (Quinclorac)

Nonselective

- Glyphosate

- Organic/reduced risk
 - Acetic acid
 - Pelargonic acid
 - Clove oil
 - Lemongrass oil

Bindweed Control in Landscape Beds

Carefully gather bindweed
into clumps without
breaking stems.



Bindweed Control in Landscape Beds

Place bindweed in plastic
Ziplock-style bags.



Bindweed Control in Landscape Beds

- Without severing roots, punch a small hole into the bags, and spray enough glyphosate into the bag to coat the vines and leaves.
- Consider mixing a spreader-sticker into the spray solution.



Bindweed Control in Landscape Beds

- Place boxes over the bags for 1-2 days. This protects the plants by preventing a greenhouse effect in the bag.
- Weigh the boxes down.
- Almost 100% success in the initial year. Bindweed reestablishes itself within a few years. When this happens, repeat the process.



Quackgrass

- Native to Eurasia
- Introduced for forage
- Dormant underground buds become active if sprayed
- Tolerates mowing



Quackgrass

- Brought in as a forage grass.
- Monitor
- Do not dig without killing it first
- Root nodules
- Control
- Tenacity???



Quack Grass Control Options

- Maintain a healthy lawn.
 - Mow at 3 inches
 - Fertilize when needed
 - Do not drought-stress the lawn.
- Wicking wand
- Spray the area out



Bur Buttercup (*Ranunculus testiculatus*)

- Native to Eurasia.
 - Invasive in the west, especially sagebrush country.
 - Common in disturbed areas.
 - Blooms March-April
 - Produces a bur-style seedhead.
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Bur Buttercup

- Toxic to livestock
 - Germinates in early winter.
 - Each bur contains 80 seeds.
 - Robs soil of moisture and nutrients.
 - Weed torch, solarization, shallow cultivation, mulch, cover crops.
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Bur Buttercup

- Spray before flowering.
 - No organic herbicides registered, but this does not mean they are not effective.
 - No preemergent products registered. Maybe worth a try if applied before germination.
 - Dicamba, 2,4-D, glyphosate.
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