



Giant Hogweed

Stronger Together!

Working to Keep Crews & Forests Safe

Local Roads Roundtable 2022





Today's Speaker

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Invasive Plant Coordinator
VT Forests, Parks & Recreation

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VTinvasives.org



Knotweed



Honeysuckle





Overview of Today

Invasive Plants

How We Can Help Your Work

Health Risks
Staying in Compliance

How You Can Help Our Work

Reducing Spread
Early Detection

Resources for You

Q&A at the End



Common Reed



Chervil



Chervil



Wild Parsnip

Invasive Plants

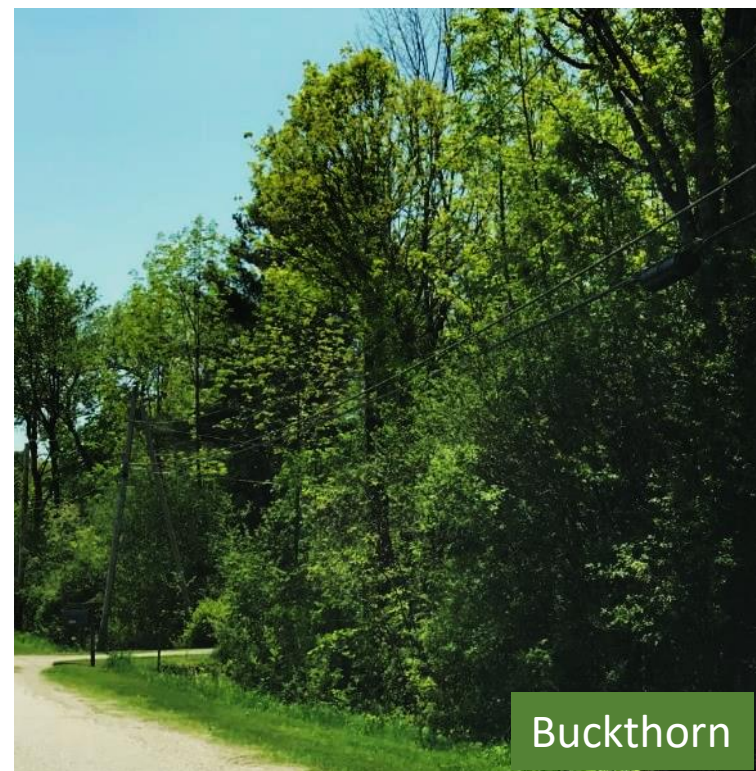
Harm Things We Value

Human Health

Road Safety

Economics

Environment



Buckthorn

How We Can Help Your Work



Left



Right



Cow Parsnip



Giant Hogweed



Hogweed vs. Cow Parsnip



- Cow Parsnip = Native plant
- **Hogweed = Invasive plant**
- **Hairs:**
 - Coarse, stiff white hairs circling the stem – Hogweed
 - Smaller “soft” hairs – Cow Parsnip
- **Flower:**
 - 50+ divisions in one cluster, umbrella shaped – Hogweed
 - <30 divisions in one cluster, flat-topped – Cow Parsnip
- **Both:** large, compound leaves
- **Both:** *Toxic Sap* – Avoid touching!



1558142



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org



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5438646



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Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Wild Parsnip



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Wild Parsnip ID



- **Parsnip**—“two” year life cycle, taproot, aboveground can get 4'+ in height
- **Leaves:** toothed edge, compound with smaller leaves almost diamond shaped (wide) and yellow-green in color
- **Flowers:** yellow, small, in clusters shaped like an umbrella
- **Flowering:** May-July
- **Seeds:** by early July, persist on plant



Noxious Weed Lists

Vermont Noxious Weed Quarantine
Federal Noxious Weed Quarantine



Common Reed



Knotweed

Illegal in Vermont to knowingly transport plants on these lists

*There are permitted exemptions that can be obtained through
Agency of Agriculture, Food & Markets – Judy.Rosovsky@vermont.gov*

How We Can Help Each Other's Work



Common Reed

Invasive Plants that can be spread by ROOT



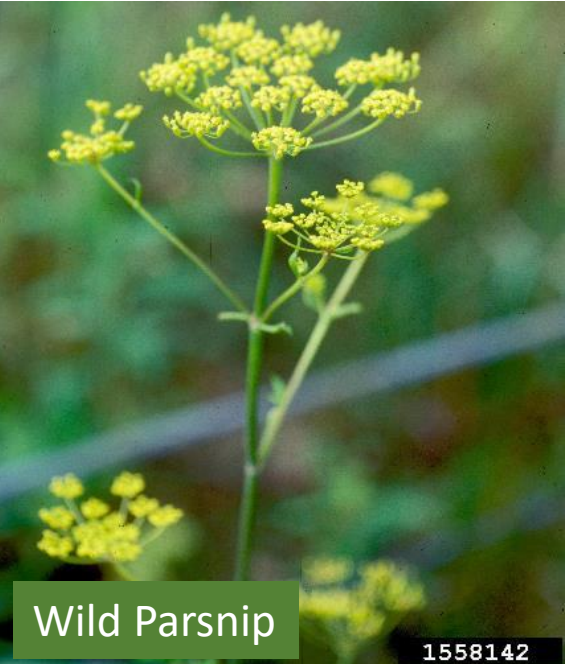
Example: Ditching and Fill

Invasive Plants that can be spread by STEM or ROOT

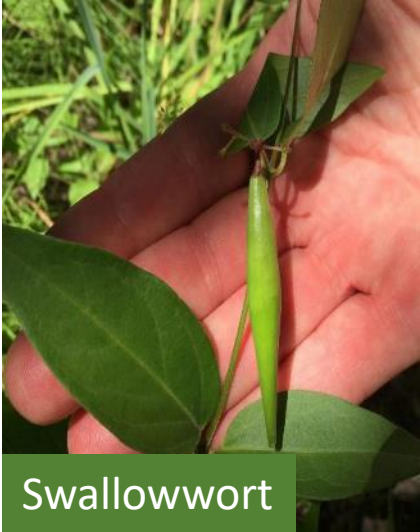
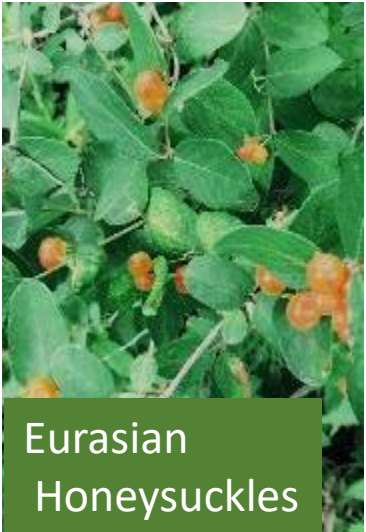


Example: Mowing and Ditching and Fill

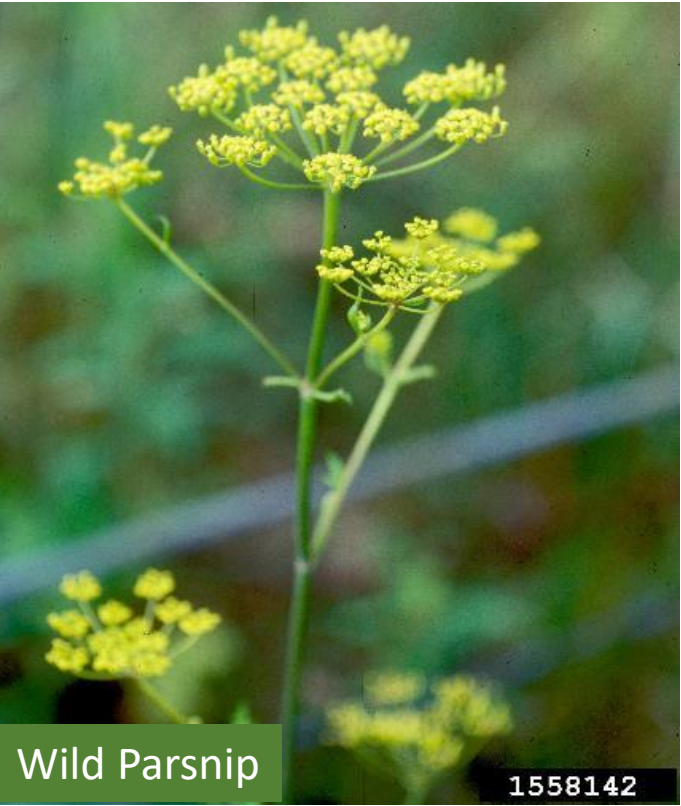
Invasive Plants that can be spread by SEED



Example: Mowing and Ditching and Fill



Invasive Plants that can cause skin reactions





Roadside Activities & Invasive Plants



Knotweed

Mowing



Wild Chervil



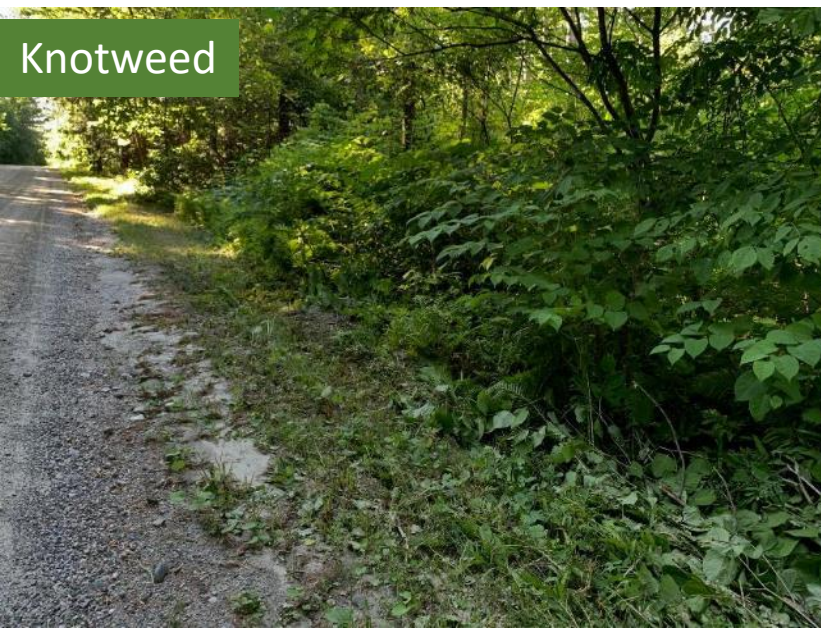
Wild Parsnip

- Know what invasive plants are present
- Ask, “does this roadside need to be mowed?”
- Always clean equipment at site
- If mowing occurs after seeds, start mowing in unaffected areas and move into affected areas (reduces spread)
- For Wild Parsnip, Wild Chervil, Swallowwort
 - Mow late June, if possible
 - If possible, mow more than once



Swallowwort

Mowing/Excavation/Ditching

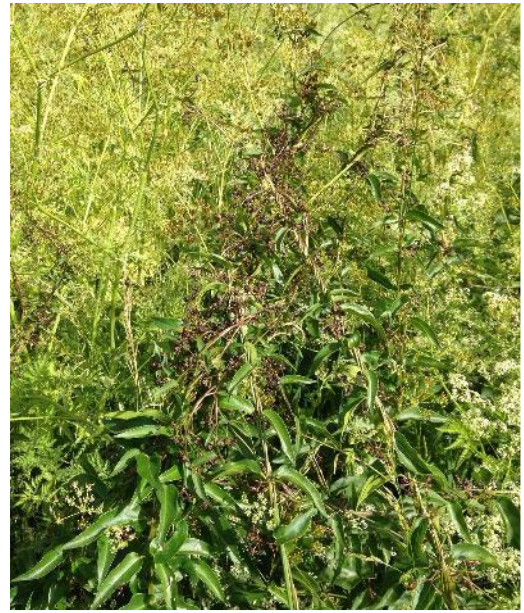


For knotweed, common reed, purple loosestrife

- **Avoid mowing/removal activities** in areas known to have these plants if no safety concerns exist
- If removal **needs** to occur, start in unaffected areas and move into affected areas (reduces spread)
- Remember to get permission from Agency of Ag if moving material offsite!

Judy.Rosovsky@vermont.gov





Early Detection

Swallowwort

New Plant Species!



Stiltgrass

- Only confirmed in Vermont in late 2019
- Places south (like Massachusetts) it flowers in late summer, and sets seed by early September
- Spotted along town roads!

On the Lookout!



Tree-of-Heaven

- Very rare in Vermont
- Will potentially aid the spread of new invasive insect, Spotted Lanternfly
- New community science project focused on tracking Tree-of-Heaven, just started in 2022
- Check out this link to learn more and take part: <https://vtinvasives.org/tree-of-heaven-early-detection-community-science-opportunity>

Tree-of-Heaven

Report Findings at

VTinvasives.org

HOW YOU CAN HELP

Think you found an invasive plant or tree pest?

REPORT IT!

Report It!

View

Edit

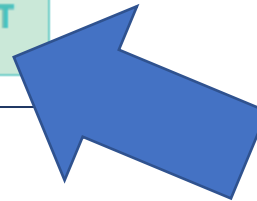
Delete

Think you've found an invasive species? There are some that we really need to know about.

Plants

I FOUND AN
AQUATIC PLANT

I FOUND AN
UPLAND PLANT



Other Resources

This presentation and all its links can be made available to participants

<https://vtinvasives.org/resource/best-management-practices-for-roadside-invasive-plants>

<https://vtcommunityforestry.org/resilientROWguide>

<https://vtrans.vermont.gov/operations/technical-services/environmental/vegetation-management>

<https://www.agriculture.nh.gov/publications-forms/documents/japanese-knotweed-bmps.pdf>

http://vtrans.vermont.gov/sites/aot/files/operations/documents/OpsMowingBMP_10-1-2016.pdf

<http://vtrans.vermont.gov/sites/aot/files/operations/documents/techservices/Invasive%20BMP.PDF>

<http://adkinvasives.com/data/files/Documents/BMPs-for-Roadside-Invasive-Plants-in-the-ADKs.pdf>

<https://www.fws.gov/northeast/cpwn/pdf/activities/InvasiveSpecies/BMPsforRoadsideInvasivePlantsNH.pdf>

<https://vtinvasives.org/sites/default/files/Alternatives%20To%20Common%20Invasive%20Plants.pdf>

<https://vtinvasives.org/sites/default/files/Best%20Management%20Practices%20for%20Roadside%20Invasive%20Plants.pdf>

http://fpr.vermont.gov/sites/fpr/files/Quarantine_WatchListUpdate-2017_November.pdf


https://www.dec.ny.gov/docs/lands_forests_pdf/sfinvasivecontrol.pdf

VTrans Resources

STATE OF VERMONT
Agency of Transportation

SEARCH

- Home
- A-Z Browse
- About
- Maintenance
 - About Us
 - Maintenance Districts
 - Road Weather Information Stations
 - Support Services
 - Pollution Prevention and Compliance
 - Best Management Practices
 - Hazardous Waste Management
 - Roadside Vegetation Management**
 - Water Quality Unit
 - Temporary Bridges
 - Traffic Data
 - Transportation Systems Management & Operations
 - Winter Maintenance Plan
 - Winter Weather Central
- Policy, Planning & Research
- Finance & Administration
- Highway
- Rail
- Aviation
- Public Transit



ROADSIDE VEGETATION MANAGEMENT UNIT

Guardrail Herbicide Program

The Pollution Prevention and Compliance Program oversees compliance on VTrans' herbicide permit. The management of weeds and unwanted vegetation is an important element of roadside maintenance. The Vermont Agency of Transportation's decision to manage vegetation on, under, and behind guardrail using herbicides is truly one of economics. When you compare the time and resources necessary to address this vegetation control issue with mowers and hand labor the costs far outweigh that resulting from the use of herbicides. VTrans has approximately 1,000 miles of guardrail (year 2011 estimate) which needs constant inspection, replacement, repair and maintenance. For more information on our herbicide program please read: [Why We Spray Guardrail](#).

For more information and to submit a "No Spray Request" near you, please see the [2020 VTrans Public Notice](#).

The VTrans Herbicide permit is administered by the [VT Agency of Agriculture, Food and Markets Pesticide Program](#).

For more information on Glyphosate you can read the VT Agency of Agriculture's publication "[Glyphosate: Farming, Health & The Environment](#)".

Invasive Plant Species

The "VTrans State Highway System Roadside Terrestrial Invasive Plants Best Management Practices" is a document explaining best management practices (BMP) for VTrans maintenance on roadside terrestrial invasive plants.

Document: [VTrans State Highway System Roadside Terrestrial Invasive BMP](#)

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Roadside Vegetation Concerns

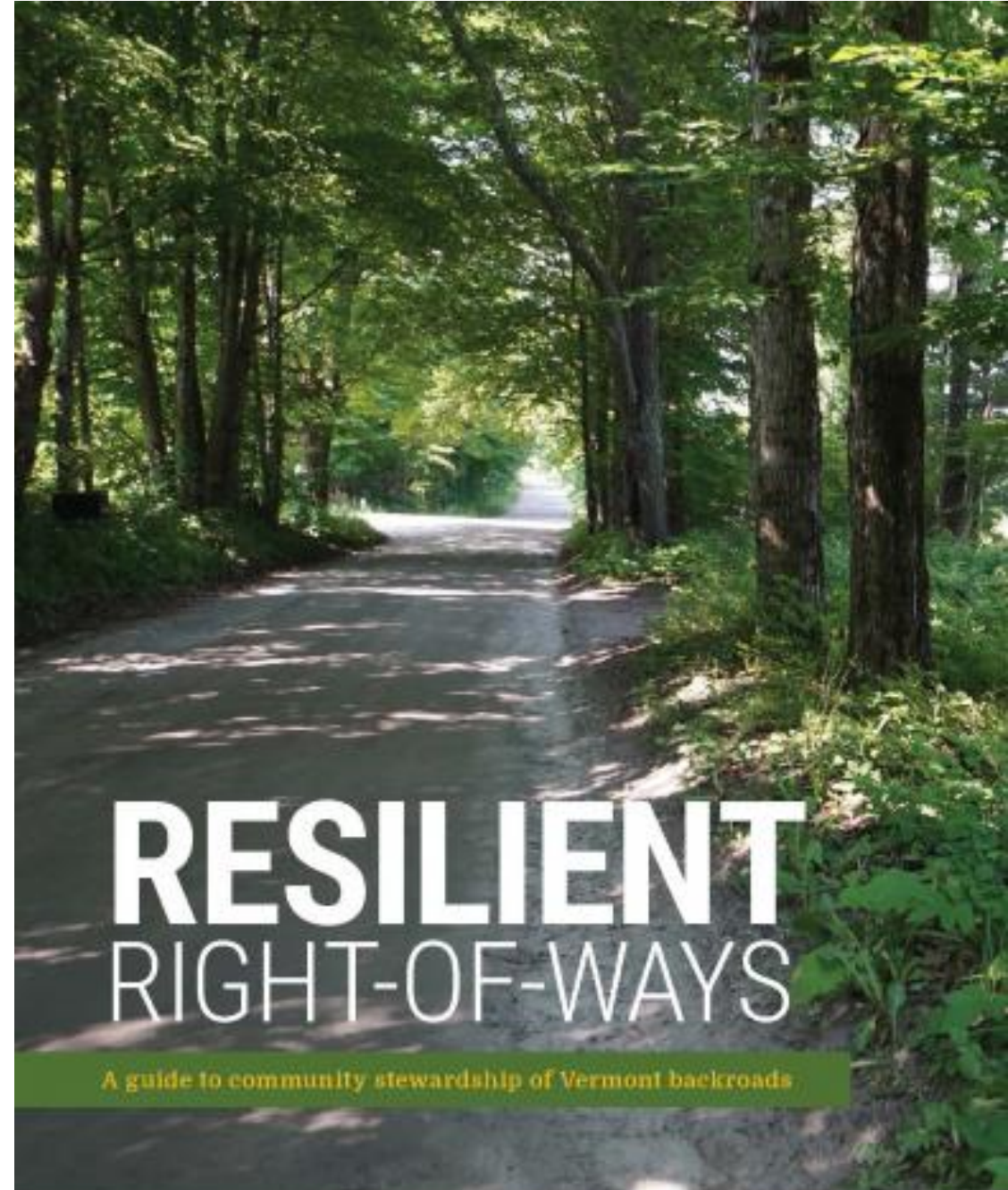
For roadside vegetation concerns near your home, please contact your local district mail list can be found at the Maintenance Districts page.

Link: [VTrans Maintenance Districts](#)


<https://vtrans.vermont.gov/operations/technical-services/environmental/vegetation-management>

Resilient Right-of-Ways Guide



- Detailed resource for backroads
- Includes information on managing for invasive plants



www.VTinvasives.org






INTRO TO INVASIVES GET INVOLVED NEWS & EVENTS ABOUT



Invasive species


Pose A Serious Threat To Vermont Communities.
Become part of the solution: Learn, Get Involved, Make a Difference.

QUICK LINKS

-  Gallery of **Aquatic Invaders**
-  Gallery of **Forest Pests**
-  Gallery of **Terrestrial Plants**


EMERALD ASH BORER IN VERMONT

INVASIVES IN THE NEWS



“Slow the Spread” Efforts Ongoing in Vermont Despite End to Federal Emerald Ash Borer Quarantine

MAKE A DIFFERENCE



Spotted Lanternfly

BMPs

- Simple one-page summary

SOIL DISTURBANCE & STABILIZATION	MOVEMENT & MAINTENANCE OF EQUIPMENT
<ol style="list-style-type: none"> 1. Minimize soil disturbance. Monitor recent work sites for the emergence of invasive plants for a minimum of 2 years after project completion. 2. Stabilize disturbed soil as soon as possible. <ul style="list-style-type: none"> • Use clean mulch, hay, rip-rap, or gravel • Seed with native species where possible 3. Avoid using fill from invaded sites. When in doubt about the quality of fill, monitor work sites for the emergence of invasive plants for a minimum of 2 years. 	<ol style="list-style-type: none"> 1. When equipment needs to be moved, plan work flow so that equipment is moved from unaffected sites to affected sites. This is especially important during ditch cleaning and shoulder scraping. 2. Staging areas should be free of invasive plants 3. All equipment and tools should be cleaned of visible dirt and plant material before leaving affected project sites. Cleaning methods can include portable wash stations, high pressure air, brush, broom, or other hand tools. 4. If equipment will be used in infested areas, remove above-ground invasive plant materials such as purple loosestrife, phragmites, and Japanese knotweed prior to the start of work.
MOWING	HANDLING EXCAVATED MATERIAL & INVASIVE PLANT MATERIAL
<ol style="list-style-type: none"> 1. Avoid mowing areas infested with purple loosestrife, phragmites, and Japanese knotweed, as these can sprout from stem and root fragments. Stake roadside populations with "Do Not Mow". 2. If mowing is necessary, mow these areas BEFORE seed maturation (approximately August 1st). 3. Clean mowing equipment daily, and prior to transport. This is particularly important if mowing is after seed maturation (August 1st) 	<ol style="list-style-type: none"> 1. Destroy removed plant material. Methods include: <ul style="list-style-type: none"> • Drying/Liquefying: <i>place on impervious surface and cover</i> • Brush piles: <i>not for plants with fruit or seed</i> • Burying: <i>minimum of 3 feet below grade</i> • Burning: <i>have a designated burn pile for invasive plants</i> • Herbicide: requires a <i>licensed applicator (VT Department of Agriculture)</i> 2. Cover invasive plant material when transporting. 3. Excavated materials taken from infested areas should only be used onsite, unless all plant material has been destroyed. Only use within exact limits of infestation. 4. Stockpile unused excavated materials on impervious surface, or bury a minimum of 3 feet below grade (5 feet for Japanese knotweed). 5. Excavation should be avoided in areas containing purple loosestrife, phragmites, and Japanese knotweed. 6. Cover soil from infested areas when transporting.

Giant Hogweed Factsheet

- Double-sided quick reference

<https://vtinvasives.org/resource/giant-hogweed-identification-resource>

COW PARSNIP vs **HOGWEED**

local plant vs problematic invasive



It's spring/summer and I see white flowers, is that Hogweed?

Blooms in **May - late June** vs Blooms in **late June - July**

How else do you tell them apart?

Flowers


White flowers, clusters are 1' wide with 15-30 rays **flat-topped**




White flowers, clusters are 2.5' wide with 50-150 rays **shaped like an umbrella**

Stems


- Predominantly **green** (can have some purple coloring)
- 1-2" diameter
- Fine white hairs



- Green with **purple splotches**
- 2-4" diameter
- Hairy, coarse white hairs at the base of leaf stalks



Scan for more info!



Invasive Plant Factsheets

- Double-sided quick reference
- Made possible by a partnership with AOT!

Common Buckthorn

(*Rhamnus cathartica*)



Key ID Features

- Arrangement:** alternate (subopposite)
- Leaves:** finely toothed, glossy, oval, dark green
- Flowers:** yellowish-green, 4 petals
- Fruit:** purplish-black and glossy
- Stem:** thin smooth bark with white lenticels; inner bark orange; thorns
- Growth Habit:** small tree/thorny shrub that grows up to 20 ft. tall



The Impact

Common Buckthorn (also called “European Buckthorn”) was introduced to North America in the 1800s as an ornamental shrub and windbreak. It forms thick hedges, crowding and shading out other plants. Common Buckthorn also “leafs out” earlier in the growing season than native forest species, re-sprouts when cut back, and the seeds remain viable in the soil for up to 5 years. It can increase the nitrogen content in the soil, which has negative impacts on native species. The fruits have a laxative property which causes the birds and animals that eat them to rapidly digest and disperse the seeds; this both spreads the plant and limits the animals’ ability to absorb nutrients.

Common Buckthorn also has economic impacts, acting as an alternative host for crown rust fungus (*Puccinia coronate*), which inhibits the quality and quantity of oats, and acts as an overwintering host for the Asian soybean aphid (*Aphis glycines*).

<https://vtinvasives.org/gallery-of-land-invasives>

Take Aways

- Invasive plants harm things we value
- It is illegal to knowingly transport listed invasive plants
- Giant Hogweed is *VERY* rare in Vermont
- Learning ID, no mow zones or mowing from unaffected into affected area, and cleaning equipment are all effective at slowing the spread
- If your crew sees a new plant, send it our way!



Swallowwort

VTinvasives.org

Thanks for
your time!

Questions?



Purple Loosestrife