



Remove and Destroy Protocol for Nursery Growers

These protocols are designed to help nursery growers (*see other side for dealer protocols*) determine the optimal way to remove and destroy infested or infected plant material when ordered as a result of a nursery inspection. A nursery grower is someone who grows, splits or propagates nursery stock which can overwinter in Wisconsin. Outlined below are common categories of infested or infected plant material and the specific protocols to follow under a remove and destroy order. Scout stock regularly and practice proper sanitation to prevent further spread.

Virus: Because **any** virus infecting plant material warrants a remove and destroy order, virus-infected nursery stock must be removed from sale and destroyed. Below are several common examples of viruses found in a nursery setting:

- Tobacco Rattle Virus
- Rose Mosaic Virus
- Impatiens Necrotic Spot Virus
- Hosta Virus X
- Potyvirus group
- Cucumber Mosaic Virus

To destroy infected material double-bag the plants and soil in garbage bags and dispose of according to local regulations. Dispose of contaminated containers or sanitize remaining containers in a 10% bleach solution if you plan to reuse them. Infected material may also be burned, or buried to at least 3 ft. Do **NOT** compost material or put in cull piles. You may also return the infected stock to your supplier.

Insects: Certain insects warrant a remove and destroy order. Most of the time infested material may be pulled off the sale floor or quarantined, and then treated until the pest infestation is mitigated (ex. common scale insects). There are certain cases, such as borer damage, where the infested plant material must be removed and destroyed. Below are several examples:

- Bronze Birch Borer
- Locust Borer
- Linden Borer
- Viburnum Borer
- Iris Borer
- Severe levels of uncommon scale insects
- Quarantine Pests (ex. Hemlock Woolly Adelgid, Elongate Hemlock Scale, Box Tree Moth, Asian Longhorned Beetle, etc.)

To destroy infested material double-bag the plants and soil in garbage bags and dispose of according to local regulations. Dispose of contaminated containers or sanitize the remaining containers in a 10% bleach solution if you plan to reuse them. Infested material may also be burned, or buried to at least 3 ft. Do **NOT** compost material or put in cull piles.

Diseases: Certain diseases warrant a remove and destroy order. In some cases, infected plants may be removed from sale, isolated and treated until the infection has been eliminated. However, there are various diseases that require immediate removal and destruction. Examples are listed below:

- Black Knot (when it's a trunk canker)
- Crown Gall
- Vascular Diseases (ex. Verticillium Wilt)
- Boxwood Blight**
- Ramorum Blight/Sudden Oak Death (*Phytophthora ramorum*)**
- Fireblight (trunk infection)
- Leafy Gall Disease
- Quarantine Diseases
- Nematodes (ex. foliar nematodes, stem and bulb nematode, etc.)

To destroy infected material double-bag the plants and soil in garbage bags and dispose of according to local regulations. Dispose of contaminated containers or sanitize the remaining containers in a 10% bleach solution if you plan to reuse them. Infected material may also be burned, or buried to at least 3 ft. Do **NOT** compost material or put in cull piles.

****Removal and Destruction for these highly infectious diseases of regulatory concern require additional precautions as directed by your inspector.**

NR-40: The NR 40 invasive species rule makes it illegal to possess, transport, transfer, or introduce regulated invasive species in Wisconsin without a permit. If you have NR-40 plants for sale, you must remove them from sale or return them to your supplier. Some species may also require destruction. A full list can be seen here: <http://dnr.wi.gov/topic/Invasives/>. Some common examples are listed below:

- Forget-me-not (*Myosotis sylvatica*)
- Parrot Feather (*Myriophyllum aquaticum*)
- Snow-on-the-Mountain (*Aegopodium podagraria*)
- Blue Lyme Grass (*Leymus arenarius*)
- Chinese/Japanese wisteria (*Wisteria sinensis/floribunda*)
- Chocolate Vine (*Akebia quinata*)
- Moneywort (*Lysimachia nummularia*), except yellow forms
- Japanese barberry (*Berberis thunbergii*) + 25 cultivars

To destroy NR-40 plant species double-bag the plants and soil in garbage bags, label them "Invasive Plants", and throw in the trash. Dispose of contaminated containers or sanitize the remaining containers in a 10% bleach solution if you plan to reuse them. Invasive species may also be burned, or buried to at least 3 ft. Do **NOT** compost material or put in cull piles. You may also return the regulated stock to your supplier.



Remove and Destroy Protocol for Nursery Dealers

These protocols are designed to help nursery dealers (*see other side for grower protocols*) determine the optimal way to remove and destroy infested or infected plant material when ordered as a result of a nursery inspection. A nursery dealer is someone who buys nursery stock from a wholesaler or distributor and re-sells the nursery stock as-is. Outlined below are common categories of infested or infected plant material and the specific protocols to follow under a remove and destroy order.

Virus: Because **any** virus infecting plant material warrants a remove and destroy order, virus-infected nursery stock must be removed from sale and destroyed. Below are several common examples of viruses found in a nursery setting:

- Tobacco Rattle Virus
- Rose Mosaic Virus
- Impatiens Necrotic Spot Virus
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Insects: Certain insects warrant a remove and destroy order. Most of the time infested material may be pulled off the sale floor or quarantined, and then treated until the pest infestation is mitigated. There are certain cases, such as borer insect damage, where the infested plant material must be removed and destroyed. Below are several examples:

- Bronze Birch Borer & other trunk borers
- Viburnum Leaf Beetle (outside of SE & E WI)
- Quarantine Pests (ex. Hemlock Woolly Adelgid, Elongate Hemlock Scale, Asian Longhorned Beetle, Box Tree Moth, etc.)
- Viburnum Borer
- Scale insects*

To destroy infested material double-bag the plants and soil in garbage bags and dispose of according to local regulations. Dispose of contaminated containers or sanitize the remaining containers in a 10% bleach solution if you plan to reuse them. Infested material may also be burned, or buried to at least 3 ft. Do **NOT** compost material or put in cull piles.

**An infestation of scale insects requires a remove and destroy order in a nursery dealer setting and not a grower setting because the infestation would require a significant amount of time to remediate, and the plants wouldn't likely be overwintered. Talk to your inspector if you believe you can hold and treat infested stock.*

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To destroy infected material double-bag the plants and soil in garbage bags and dispose of according to local regulations. Dispose of contaminated containers or sanitize the remaining containers in a 10% bleach solution if you plan to reuse them. Infected material may also be burned, or buried to at least 3 ft. Do **NOT** compost material or put in cull piles.

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