Gardening with climate-smart native plants in the Northeast

Definitions

**USDA Plant Hardiness Zone**: Zones based on minimum temperature that are used to determine where plants can grow.

**Non-native**: A species unlikely to have arrived without human assistance.

**Invasive**: A species that is established and spreading with negative impacts to native species and ecosystems.

**Climate-smart gardening**: Planting for present and future conditions using native species and ecosystems.

**Benefits of Native Plants**

- Native trees support twice the caterpillar diversity of related non-native trees

**Costs of Non-native Plants**

Non-native plants are 40x more likely to become invasive than native garden plants.

Invasive plants cost the U.S. an estimated $20 billion per year to manage and control.

**Why Native?**

An estimated 80% of ornamental plants for sale are non-native. This means that the average yard does a poor job of supporting native flora and fauna. By shifting our plantings towards natives, we can dramatically increase the diversity of bees, butterflies, birds and other animals.

In contrast, non-native plants do not support local food webs and can become invasive. Native plants increase biodiversity and reduce risks associated with invasive species, which supports resilient ecosystems in the face of climate change. **Look inside for some ideas!**

**Sources**

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Journal Articles: Burghardt et al. 2010 Ecosphere; Garden et al. 2015
Parasites & Vectors; Morandin & Kremen 2013 Eco App; Pimentel et al. 2006 Ecol Econ; Poelen et al. 2014 Ecol Info; Simberloff et al. 2012
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**Images**

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**Authors**


*brbradley@eco.umass.edu

**Benefits of Native Plants**

- 50% higher abundance of native birds
- 9x higher abundance of rare birds
- 3x more butterfly species
- 2x higher abundance of native bees

**Costs of Non-native Plants**

Invasive plants cost the U.S. an estimated $20 billion per year to manage and control.

Invasive Japanese barberry supports 3x more deer ticks, which carry Lyme disease.

Common plantings that have become invasive and should be replaced:

- Japanese barberry
- Japanese honeysuckle
- Burning bush
- Multiflora rose

For a full list, contact your state’s extension program

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## Climate-smart native plants

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<td>Canada wild rye (<em>Elymus canadensis</em>)</td>
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<td>Cardinal flower (<em>Lobelia cardinalis</em>)</td>
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<td>Ironweed (<em>Vernonia noveboracensis</em>)</td>
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<td>Joe pye weed (<em>Eutrochium fistulosum</em>)</td>
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<td>Obedient plant (<em>Physostegia virginiana</em>)</td>
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<td>White turtlehead (<em>Chelone glabra</em>)</td>
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<td><strong>Native Shrubs</strong></td>
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<tr>
<td>American hazelnut (<em>Corylus americana</em>)</td>
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<td>Highbush blueberry (<em>Vaccinium corymbosum</em>)</td>
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<td>Mountain laurel (<em>Kalmia latifolia</em>)</td>
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<td>Northern bush honeysuckle (<em>Diervilla lonicera</em>)</td>
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<td>Bladdernut (<em>Staphylea trifoliata</em>)</td>
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<td>Gray dogwood (<em>Cornus racemosa</em>)</td>
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<td>Pussy willow (<em>Salix discolor</em>)</td>
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**KEY:**
- **Dry**
- **Part shade**
- **Full sun**
- **Medium**
- **Wet**
- **Supports pollinators**
- **Showy flowers**
- **Showy/edible fruit**
- **Supports birds**
- **Low maintenance**
- **Deer resistant**