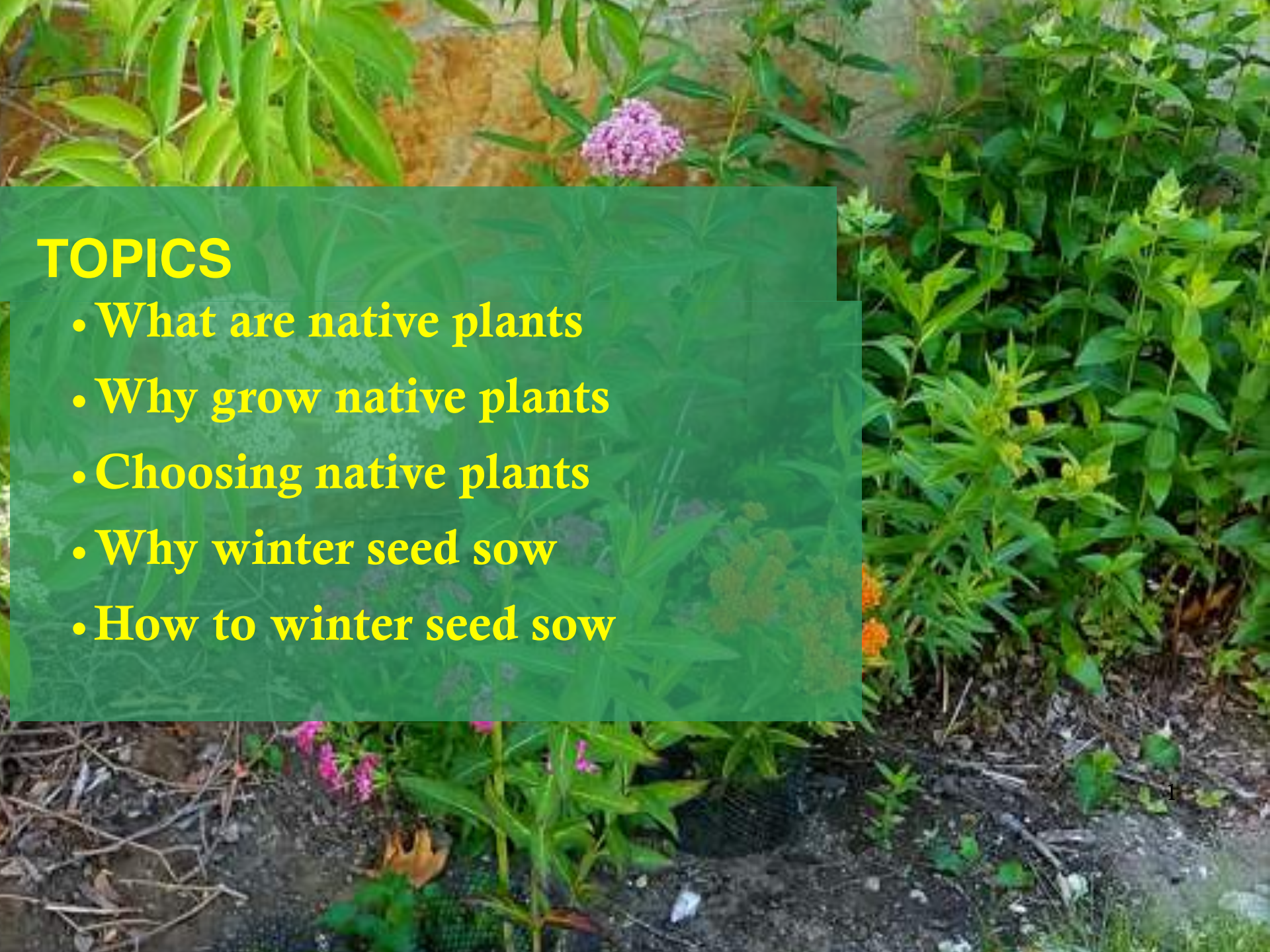


TOPICS

- What are native plants
- Why grow native plants
- Choosing native plants
- Why winter seed sow
- How to winter seed sow

What are native plants?

- Plants growing here before colonization
  - For some, "here" means as local as county
  - For others, as broad as state or northeast US
  - Key: they evolved with and support local wildlife

Why grow native plants?

- Low maintenance
- ESSENTIAL FOR BIODIVERSITY

NATIVE PLANTS ARE LOW MAINTENANCE

Non-native plants and lawns fuel $154B landscaping services industry

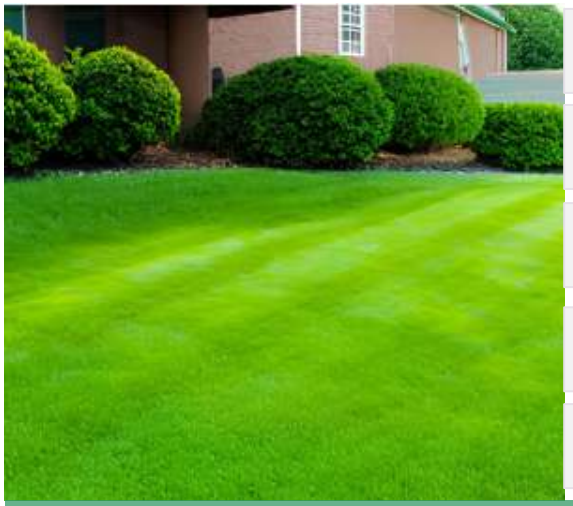


Photo: Internet

WATER ME!

MOW ME!

FERTILIZE ME!

SPRAY ME WITH CHEMICALS!

BLAST ME WITH A LEAF BLOWER!

= Resources, Time, Effort, Money & Pollution

Native plants: evolved to live here unassisted.

But LOW maintenance does not mean NO maintenance
- Need weeding and "editing" or will change over time.
- Native gardens can be formal and neat or wild – both can be beautiful

Native Plants: Essential for Biodiversity

BIODIVERSITY = the variety of plants, animals, fungi

More biodiversity means…

- healthier forests, meadows, wetlands, wildlife & humans
- more foods and medicines
- more carbon storage and climate resilience
- nature more able to withstand and adapt to floods, droughts, disease, pests

Despite its critical value, biodiversity is in crisis, both globally and right here in Massachusetts. Scientists estimate over one million species will go extinct in the 21st century—a rate ten times higher than anything we've seen in Earth's history.[19]

More than 450 species at risk in Massachusetts

OUR NATIVE PLANTS NEED NATIVE POLLINATORS

- Pollinators are animals that help plants reproduce
  - 85% of plants require animals to reproduce
  - Bees, moths & butterflies, beetles and more
- Massachusetts has 480 **native bee species**
  - Many are disappearing
  - ~1 in 4 native bee species are "specialists" – adapted to pollinate specific native plants
- **Butterflies and moths** are also declining
  - Many specialists – e.g., monarchs & milkweed
  - Caterpillars essential for 90% of birds to raise young
- Lose the plant, lose the pollinator; lose the pollinator, lose the plant

Squash bees

Blueberry bee

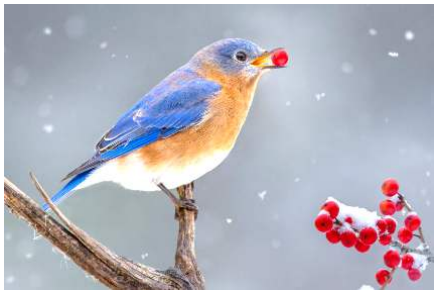
Photos: Internet

OUR NATIVE POLLINATORS NEED NATIVE PLANTS

OUR NATIVE BIRDS NEED OUR NATIVE PLANTS

- Birds need the insects that eat native plants
  - Caterpilliars are #1 baby food – "portable protein"
- Birds need high-fat berries to survive migration

  or over-wintering
  - Many introduced plants have low-fat berries
  - Some become invasive and displace native plants with nutritious high-fat berries



Native Plant	%fat
Bayberry	50.3
Arrowwood viburnum	48.7
Spicebush	48.0
Gray dogwood	34.9
Virginia creeper	23.6

Non-Native	%fat
Asian bittersweet	2.6
Autumn olive	2.1
Multiflora rose	0.9
Honeysuckle	0.7
Common buckthorn	0.5

Photos: Internet

NATIVE PLANTS FEED ALL OUR NATIVE WILDLIFE

PLANT SELECTION: GENERAL RULES

- Natural straight species better than cultivars
  - Cultivars are clones – e.g., not Foxglove beardtongue 'husker red'
    - Lack genetic diversity; usually less attractive & nutritional for pollinators
- Avoid most wildflower seed mixes – often include non-natives
- Aim for a diversity of plants with different bloom times
- Consider planting for specialist and/or at-risk species
- Right plant, right place: pay attention to sun, soil & moisture.
- Definitions:

Hours per Day of Direct Sun

Sun		Shade	
Full	**Part**	**Part**	**Full**
6+	3-6	3-6	0-3

With protection against hot pm sun

Soil Moisture

Wet	**Dry**	**Medium**
Plant in consistently moist soil	Plant in soil that's not "wet"	
	Water only when very dry	But holds moisture well