# YardScaping...

### for a healthy Maine

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#### The Maine YardScaping Partnership

- Allen, Sterling & Lothrop
- Bar Mills Ecological
- Carroll Associates, Landscape Architects
- · City of Portland
- Congress of Lake Associations
- Edwards & Kelcey
- · Friends of Casco Bay
- · Friends of Scarborough Marsh
- Kennebunkport Conservation
   Commission
- LakeSmart Program
- · Lisa Cowan, Landscape Architecture
- Maine Board of Pesticides Control
- Maine Department of Agriculture
- Maine Department of Environmental Protection
- Maine Landscape/Nursery Association

- Maine Organic Farmers & Gardeners Association
- Maine Society of Landscape Architects
- Maine Storm Water Groups
- Maine Volunteer Lake Monitoring Program
- Natural Resources Conservation
   Service
- · O'Donal's Nurseries
- Shaw Brothers Construction
- Skillin's Greenhouses
- Soil & Water Conservation Districts
- Southern Maine Community College
- State Planning Office
- Think Blue Maine Program
- Town of Brunswick
- University of Maine Cooperative Extension

# The Partnership is very diverse!



# YardScaping

- A new paradigm?
- Some call it "Sustainable Landscaping" or "Ecological Landscaping"
- We want to keep it simple





## YardScaping Mission

- To inspire Maine people to
  - create and maintain healthy landscapes
  - through ecologically based practices that
  - minimize reliance on water, fertilizer and pesticides



# Maine pesticide use more common than perceived







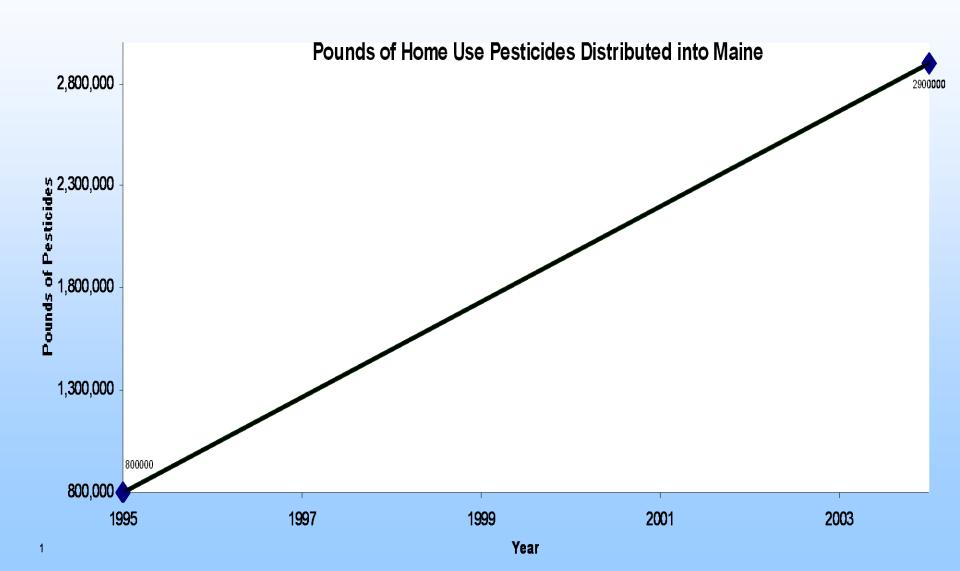








#### Dramatic 3x increase in use!



### **BayScaping Project**

- Friends Of Casco Bay did some detective work in 2001, 2002, 2003, 2005 & 2006
- Sampled runoff water from intensive lawn care areas in Cumberland, S Portland, Westbrook, Falmouth, Yarmouth, Brunswick, Freeport, Portland and Cape Elizabeth & Back Cove area



- Sampled sediments for pyrethroids in 2006 – All samples were
  - "no detectable levels"

### Friends of Casco Bay Sampling

- 2001 Sampling
  - Found Diazinon in 1 of 3 samples (2.6 ppb)\*\*
  - Found 2,4-D in all 3 samples (36.4 ppb)
  - Found Dicamba in 1 of 3 samples (3.8 ppb)
  - Found MCPP in 2 of 3 samples (26 ppb)
  - Found Nitrogen & Phosphorous in all samples
- 2002 Sampling
  - Found Diazinon in 4 of 11 samples (.71 ppb)
  - Found Nitrogen & Phosphorous in all samples
- 2003 Sampling
  - Found Dicamba in 3 of 10 samples (4.1 ppb)
  - Found Clopyralid in 1 of 10 samples (0.91 ppb)
  - Found Propiconazole in 2 of 10 samples (0.075 ppb)



\*\*Values in red exceed ALC

# **Back Cove Project**

- 2005 Sampling
  - Found 2,4-D in 2 of 5 samples (4.62 ppb)
  - Found MCPA in 2 of 5 samples (0.45 ppb)





## Aquatic Life Criteria



- EPA criteria for nuisance algae growth
  - Nitrogen 250 ppb Phosphorous 20 ppb
- EPA just proposed diazinon level of 0.1 ppb for fresh water
- Other criteria proposed by various sources for fresh water (from USGS Fact Sheet 097-99)

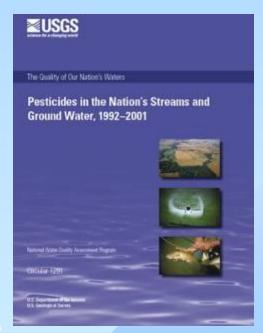
− 2,4-D − 4 ppb
 Dicamba − 10 ppb

− MCPA − 2.6 ppbTriclopyr − 560 ppb

Carbaryl – 0.02 ppb Chlorpyrifos – 0.001 ppb

# USGS National Water Quality Assessment

- Sampled urban streams
  - Insecticides occurred more frequently in urban streams than they did in agricultural area streams
  - Herbicides detected in 99% of Urban stream samples
  - Phosphorous found at same levels as in agricultural streams
    - 70% of those samples exceeded the EPA level for causing excessive algal growth



## The Tenets of YardScaping

- Use site appropriate, non-invasive plants
- Right plant, right place, right purpose
- Use diversity of plants & grasses
- Create wildlife habitats
- Reduce lawn area
- Use low input lawns & landscapes
- Use vegetative buffers to protect surface waters
- Reduce runoff
- Reduce reliance on pesticides, fertilizers and water
- Promote sensible pest management (IPM)

### Use site appropriate, noninvasive plants

- Native plants are well adapted
  - Fewer problems, less work, more rewards

- Invasive plants are easy to grow but crowd out native vegetation
  - Our local forest habitats are changing rapidly
  - Invasive plants ruin wildlife habitat



# Right plant, right place, right purpose

- Choose plants based on the area to be planted not just for their color
- Select plants that thrive under existing conditions rather than trying to alter the conditions to meet the needs of a plant
- Minimize disturbance of the existing landscape



# Right plant, right place



Common Ninebark
– dry sunny site



Cinnamon Fernwet shady site



Staghorn Sumac – large open dry bank

# Use a diversity of plants & grasses

- Less noticeable damage from pests and disease
- Incorporate many layers of plant types
  - Trees
  - Shrubs
  - Ground covers
  - Perennials, and
  - Lawns



#### Create wildlife habitats

- Diversity and plant layers go hand in hand with habitat creation
- Add nectar and fruit producing plants
- Strive for continuous blooms
- Add water, walls, feeders, woody debris





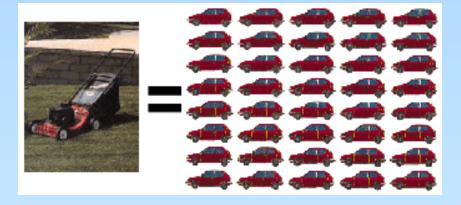
#### Reduce lawn area

#### Reduces

- Water & air pollution
- Water usage
- Maintenance
- Costs

#### Gives

More free time



Mower exhaust = 40 small cars' exhaust



## Use low input plant varieties

- No-mow fescue vs Kentucky bluegrass
- Pagoda dogwood vs flowering cherry
- River birch vs paper birch







Protect lakes & streams with buffers

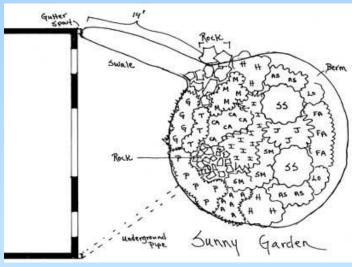
 Preserve existing landscape

- Winding paths
- Don't mow to lake's edge
- Pitch the rake

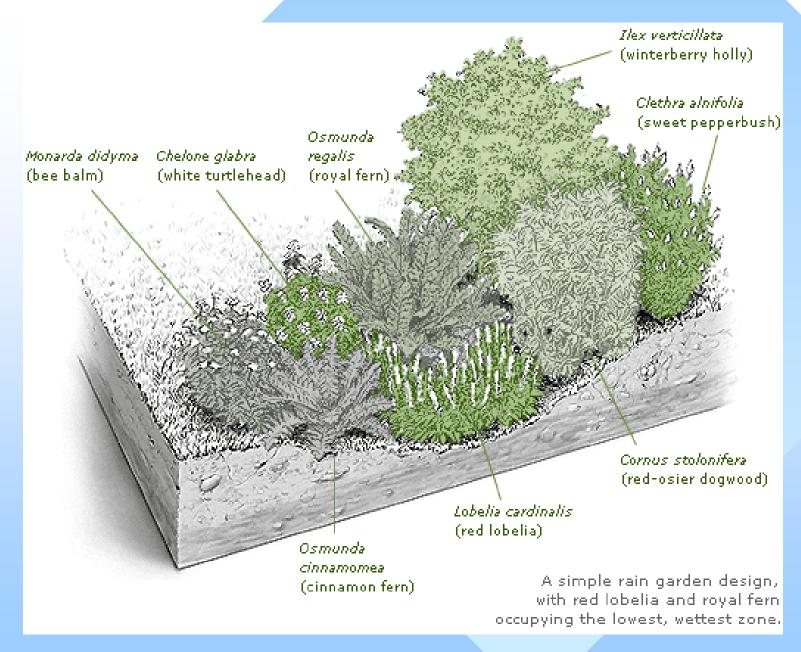


### Reduce runoff

- Reduce amount of pervious (hard) surfaces
- Create rain gardens or install rain barrels
- Direct water into vegetated areas







Rain gardens are beautiful and functional

# Reduce reliance on pesticides, fertilizers and water

 Grow plants that are resistant to insects & diseases

Use plants that tolerate low fertility

 Use drought resistant plants

White Fix

White Fir



Sweet Fern

# Use common sense pest management

- Integrated pest management
  - Know your pest
  - Pick it, trap it or exclude it
  - Know the good bugs
  - Mow, prune or water
  - Use pesticides as last resort



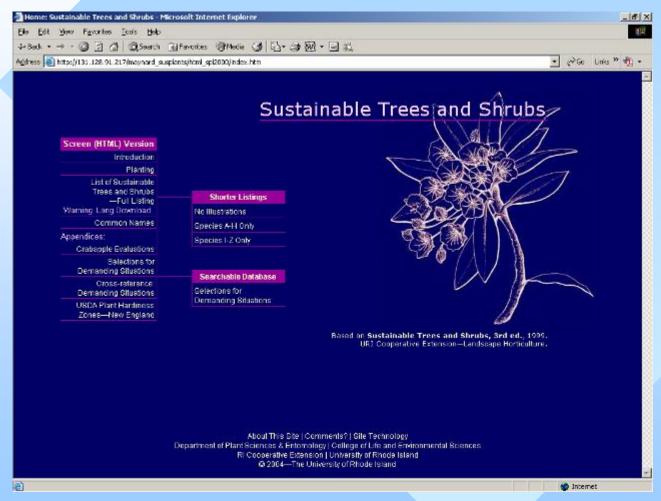




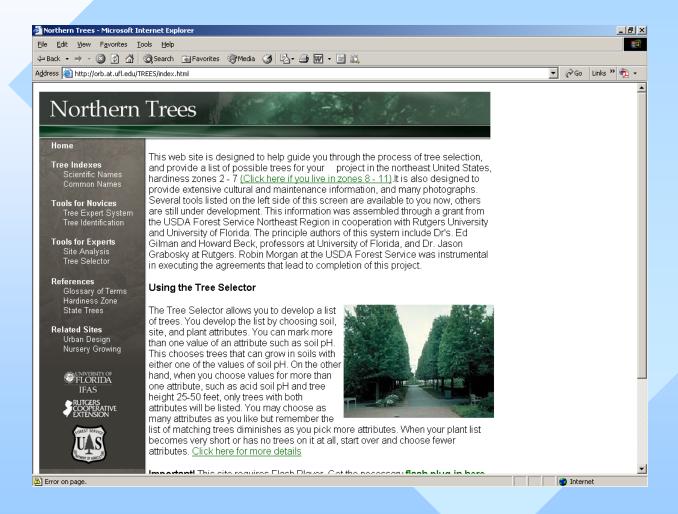
http://www.yardscaping.org



http://www.maine.gov/agriculture/pesticides/gotpests/



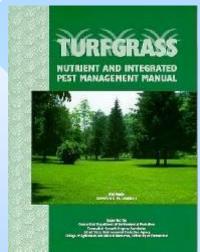
http://131.128.91.217/maynard\_susplants/html\_spl2000/index.htm

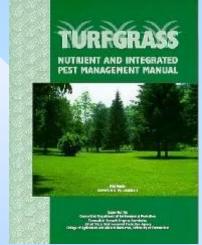


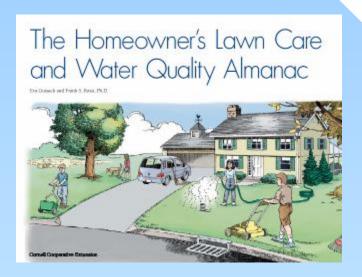
http://orb.at.ufl.edu/TREES/index.html

### Other resources

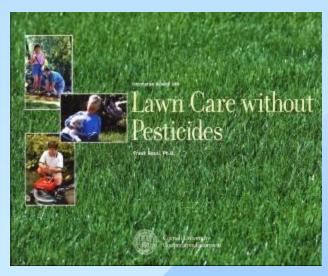
•http://www.hort.uconn.edu/ipm/turf/htms/turfman.htm







http://www.gardening.cornell.edu/lawn/almanac



http://www03.cmhc-schl.gc.ca/b2c/catalog/products.do#

http://dspace.library.cornell.edu/bitstream/1813/ 3574/2/Lawn+Care+without+Pesticides.pdf

# YardScaping... Protecting the beauty of Maine

