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!

Pounds of Home Use Pesticides Distributed into Maine

Year:
- 1995
- 1997
- 1999
- 2001
- 2003

Pounds of Pesticides:
- 800,000
- 800,000
- 800,000
- 800,000
- 800,000

Graph shows a linear increase from 800,000 pounds in 1995 to 2,900,000 pounds in 2003.
BayScaping Project


• 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 ppb  Triclopyr – 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, non-invasive 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 Fern – wet 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
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
Where to learn more

http://www.yardscaping.org
Where to learn more

http://www.maine.gov/agriculture/pesticides/gotpests/
Where to learn more

http://131.128.91.217/maynard_susplants/html_sp12000/index.htm
Where to learn more

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
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