

WATERVILLE VALLEY Pesticide Awareness and Organic LAWN CARE Program

The cumulative impact of toxic synthetic lawn chemicals is devastating to both human and ecological health. A growing body of scientific evidence tells us we should be far more vigilant in our control of these chemicals, and -- finally -- states and municipalities are starting to take action. This cannot happen soon enough. _McKay Jenkins *What's Gotten Into Us: Staying Healthy in a Toxic World*



Waterville Valley has twice passed a non-binding referendum prohibiting the use of pesticides on Waterville Valley lawns. We ask that all of our Waterville Valley neighbors and property management companies honor the wishes of this community by practicing Honestly Pesticide Free Land Care.

WHY we passed a non-binding referendum....PESTICIDES are really unhealthy

ACUTE Pesticide Exposure (short term effects) can cause rashes, breathing difficulties, headaches, Nose bleeds, nausea, and burning of eyes and throats.

CHRONIC (long term) effects of pesticide exposure. Chronic exposure is linked to Cancer including, leukemia, brain and breast cancer, non-Hodgkin's lymphoma, myeloma, prostate and soft tissue sarcoma.

Pesticide exposure is linked to birth defects, neurological (Parkinson's disease and brain damage) and reproductive disorders (including miscarriages and infertility), and endocrine disorders (hormonal imbalances and diabetes), genetic mutations, liver, pancreatic, kidney, and bladder damage. Recent research studies see a similar link for attention-deficit and hyperactivity disorders, and cognitive decline measured by lower IQ.

2,4-D is an endocrine disruptor, and a possible human carcinogen and is suspected as the cause of a dramatic increase in non-Hodgkin's lymphoma in Nebraska and Kansas farmers.

MCP and the risk of cancer The British Journal of Cancer reported that workers in a Danish manufacturing facility where MCP was made had increased incidence of soft-tissue sarcomas.

Dicamba. A study from the National Cancer Institute found that farmers using Dicamba have double the risk of contracting non-Hodgkin's lymphoma.

The risk of TCC (Dog Bladder Cancer) was significantly increased among dogs exposed to lawns or gardens treated with both herbicides and insecticides. Exposure to lawns or gardens treated with herbicides was associated with an increased risk of TCC. Owners should minimize their dogs' access to lawns or gardens treated with phenoxy herbicides. (J Am Vet Med Assoc 2004; 24:1290–1297)

But we just use a little bit...

The dose does not make the poison, small amounts cause a great deal of damage...It all adds up...According to the EPA, Americans use around 90 million pounds of pesticides in their homes, gardens, and lawns each year, and on average, pesticide use on lawns is four times greater per acre than on agricultural land.

Don't pesticides biodegrade quickly? Monsanto was fined for false advertising in a court case that reached The Supreme Court of France. Monsanto claimed Roundup was biodegradable even though Monsanto's own research finds that only 2% of the applied product biodegrades after 28 days.

Speaking of Roundup... Glyphosate (the active ingredient in Roundup) sales were in excess of 200 million pounds for lawn care and agriculture in the US in 2007. A study published in *Toxicology* discovered that all formulations of Roundup were found to cause cell death to human fetuses, umbilical and placental cells within 18-24 hours, thus greatly increasing the chances of miscarriage.

Doesn't the EPA test this stuff? Not really... The EPA only reviews test data that the manufacturers provide. Tests are not conducted to determine effects on children, women or those with compromised immune systems or the health effects of multiple formulations, "The EPA is five years behind in their systematic review of pesticides thought to be dangerous to children." Dr Alex Lu, Harvard EPA Scientific Advisory Board testifying to NH Agriculture and Environment Committee of The NH House of Representatives, June 15, 2010

One of the nation's largest Chemical Lawn Care companies uses approx. 32 chemicals in their residential lawn care program. Of these, 17 possibly cause cancer, 9 are suspected reproductive toxins, 11 are hormone disruptors, all 32 harm aquatic environments and water supplies, and 13 of them are banned or restricted in other countries.

Inert PESTICIDE Ingredients are often more harmful than active ingredients. Inerts have "unknown toxicity;" some are classified as carcinogens, neurotoxins, and as hazardous waste. Considered "trade secrets" no federal law requires their disclosure on a label. **Source:** Beyond Pesticides Lawn Pesticide Facts and Figures A Beyond Pesticides Factsheet.

"Chronic illness is widespread in many industrialized nations like the U.S. and more studies than ever are linking this disease epidemic to pesticide exposure." http://www.naturalnews.com/z029550_pesticides_disease.html.

Beyond Pesticides database Pesticide-Induced Diseases - designed to catalog these studies, indicating that pesticides are, indeed, linked to cancer, reproductive dysfunction, diabetes, asthma, birth defects, Parkinson's and Alzheimer's diseases, etc.

<http://www.beyondpesticides.org/health/>

The Healthy Children Report, The Maine Report were submitted to The NH House of Representatives and The Maine House of Representatives in support of NH HB 495 and Maine's LD837, prohibiting the use of lawn herbicides and pesticides on school grounds and playing fields. Waterville Valley's own The LEAH Advocacy Group presented reports with summaries of peer reviewed literature on the dangers of pesticides, specifically to children's health.

<http://www.leahcollective.org/our-reports>

Beyond Pesticides www.beyondpesticides.org Pesticide-induced Diseases: www.beyondpesticides.org/health/cancer.htm
The LEAH Collective/ Advocacy Group www.leahcollective.org Pesticide Awareness Network of North America (PANNA) <http://www.panna.org/> Toxics Action Center www.toxicsaction.org

HONEST ORGANIC YARD CARE

Harvard University's famous Harvard Yard is now organically maintained, Keene State and Plymouth State do organic on their campus, although Plymouth State still applies herbicides on their playing fields.

Shrink the size of your lawn; most grasses are invasive species. Plant native ground covers like partridge berry or wintergreen which require no mowing, no watering and low maintenance.

Ecological consequences "78 million homes and gardens use pesticides, moreover herbicides account for the highest usage of pesticides in the home and garden sector with 90 million pounds applied per year."

Studies have shown that the costs of maintaining organic lawns are lower than a chemically treated lawn.



HERE's HOW: 12 TIPS for ORGANIC LAWN CARE

Establishing a new lawn or converting to organics

1 Test your Soil Results of the test will help you customize your lawn needs: pH, N-P-K, Magnesium, and biomass. Places that do soil tests: www.extension.unh.edu, <http://www.umass.edu/soiltest/>, http://www.harringtonsorganic.com/soil_testing.html

2 Choose the proper grass seed for your lawn for your location (region) and conditions (sun or shade). <http://Gardeningguru.tripod.com>. Slow growing, native grasses reduce mowing frequency Add clover for biodiversity; it is drought tolerant and resistant to disease. www.pearl'spremium.com

"Clover takes free nitrogen from the atmosphere and distributes it to the grass, helping it grow. It is a significant resource to soil organisms." Read Your "Weeds" A National Coalition for Pesticide-Free Lawns

3 Aerate (loosen hard, dry and compacted soil) before seeding with a hand held or machine aerator, this process, rather than tilling ensures seeds are planted deeply in soil and have oxygen.

4 Use organic fertilizers and avoid synthetic fertilizers which are imbedded with toxic herbicides. A slow-release organic fertilizer allows your grass to take what it needs as it needs it, synthetic fertilizers are often washed away polluting ground water. Synthetic fertilizers contain salt which harms beneficial microorganisms and earthworms depleting your soil of rich nutrients.

5 Compost is rich in nutrients, minerals, and beneficial microorganisms; providing natural insect control as they feed on grubs. **Top dress with compost:** Fancy get dressed language for lightly spreading 1/4-1/2 of an inch of compost on your lawn...

6 Compost tea is a liquid form of compost, add water and constant air movement for 18 hrs. It can be used in conjunction with dry compost. Compost tea recipes:

http://adoptanorganicfield.com/Steps_Toward_a_Healthy_Lawn.html.

Maintaining a healthy lawn

7 Mow grass high (2.75-3 inches) Cut the grass when dry. Change the direction you cut. Use a mulching mower, preferably non-riding with a sharp blade. Leaving grass taller conserves water, increases drought tolerance, and crowds out unsightly weeds. The town square in Waterville Valley is mowed with a push mower and they say it takes the same amount of time as a lawnmower that uses lots of gasoline and ups the carbon footprint.

8 Leave the grass clippings on the lawn; clippings act as free fertilizer.

9 Water deeply and infrequently and preferably in the morning; night time watering encourages disease and fungus. Water one-inch per week for a healthy established lawn.

10 PROBLEMS with Soils and Weeds

Acidic Soil We suggest spreading **wood ash or lime** and good quality compost to balance a soil's pH. Acidic soils have difficulty absorbing nutrients. Proper pH reads between 6.3-6.8.

Weed Control: Overseed add more of what you want: reseed your lawn during the spring and fall. New turf is a barrier against aggressive weeds, then top dress with compost. **Acceptable solutions** are vinegar, dumping hot water on weeds growing in sidewalk cracks and if you still cannot live with a dandelion or two, use **organic corn gluten**, a pre-emergent natural herbicide in the early spring.

11 Insect controls: Introduce **beneficial nematodes** to your lawn; they are microscopic, non-segmented worms which feed on ants, termites, cut worms, and grubs. For Japanese beetles apply **Milky Spore**, bacteria in a dry powder, it attacks larvae, and can kill grubs for up to 20 years:
www.bicont.com/biocontrol/nemas.html.

12 CELEBRATE the Biodiversity in your lawn. Understand that your lawn is not just grass, but harbors a complex ecosystem of plants, beneficial insects and fungus and animals all living in a careful balance with one another.

Businesses and homeowners in Waterville Valley will be asked to sign the green pledge to assure an honest commitment to pesticide-free, organic lawn and land care. Thank you!

ORGANIC Landscaping RESOURCES in New Hampshire

The Country Landing, route 175 Thornton sells only organic composts, soil amendments and starter organic starter seeds, plants and vegetables. (603)-726-8908

Fire Belly Organics 15 Dartmouth Dr., Suite 101, Auburn, NH 03032 Owner/founder Tom Kelly sells a full line of six step organic products to replenish soil health such as miccorhizae fungi, and liquid fertilizers that contain absolutely no herbicide or pesticide. <http://www.firebellylawncare.com/contact.php> (603)587-0384

Yard Spice Organics (47C Derry Road, Hudson, NH 03051) Chester Mandrik has owned this yard store for 30 years, lawn care and online service. Great classes on organic land care. <http://www.yardspice.com/> (603)-595-8813

Organic Lawn and Land Care Organizations

Grass Roots Environmental Education

516.883.0887

<http://www.grassrootsinfo.org>

NOFA OLC (Northeast Organic Farmers Association Organic Land Care) information on organic land care, problem solutions and organic land care specialist in your area. www.organiclawncare.org

Safelawns

www.safelawns.org

The Waterville Valley Selectmen and The Town Manager and The LEAH Collective which is an honestly green and grass rooted effort to create awareness about the dangers of lawn herbicides and pesticides. We educate about sustainable, organic lawn and land care.

A BIG THANK YOU to authors Bonnie Curry, Cameron Fen, Ellen Fine with lots of input from Javier Gil, Tom Kelly, Chester Mandrik, Felicia Motherway and Alyssa Owens, Duke Potter and Kaija Starck