

DRAFT HEALTHY ECOSYSTEM ORDINANCE
Kennebunkport Conservation Commission (KCC)
June 6, 2022

1. Introduction

Pesticides are used to kill or deter creatures (primarily bugs and grubs and worms) and unwanted vegetation (such as dandelions in lawns). Although the term “herbicide” is widely used for a substance that kills vegetation or prevents it from sprouting, in the EPA and other pesticide documents, herbicides are considered to be one type of pesticide.

Fertilizers are used to enhance growth of desirable plant species. Sometimes, fertilizers also contain herbicides.

Pesticides have been used for thousands of years. Gradually, with experience, countries have outlawed certain types of pesticides due to obvious adverse effects on human health, on domestic animals such as dogs and cows, on wild creatures (including insects), and the environment. Fertilizers have been used since humans began growing crops. Since the late 1800s, synthetic fertilizers containing nitrogen, phosphate, and potash have been widely produced and used. A main problem is that some of the fertilizer does not stay on the field where it was applied, but is carried into waterways where it leads to unwanted plant growth.

Like most New England coastal villages, Kennebunkport has been a fishing community for a few millenia. We have about 50 miles of shoreline, including the many islands, the beaches and rocky shores, the marshes, and the rivers (Kennebunk and Little and Batson). It is important to preserve the water quality, the vegetation (e.g., marsh grass and seaweed), and the many fish and crustaceans and mollusks. This requires us to minimize the amounts of pesticides and fertilizers used, since a significant fraction is transported into the water and has been shown to adversely affect the vegetation and the living creatures in the water.

Since the formation of the EPA in the 1970s, their research has addressed a wide range of pesticides, resulting in a few other pesticides being added to the list of banned chemicals ([provide web site](#)). The U.S. EPA and Departments of Agriculture and Interior, and the State of Maine (and other states) are continually studying pesticides and their health and environmental effects and considering others that might be added to the list ([provide web site](#)). In addition to the government agencies, there are many active non-government groups who are researching pesticides and fertilizers and providing educational materials, guidance and certifications (for example, the Maine Organic Farming and Gardening Association (MOFGA, [provide web site](#)))

As is true of all environmental pollutants, pesticides do not remain on the area where they were initially applied. They are transported and dispersed in the air by wind and turbulence, in the water by currents, in underground water aquifers by slow currents and dispersion, and in soils by transport in fissures/cracks and by dispersion. The EPA has carried out observational studies of all these processes and has developed and uses basic science models that can predict the concentration of a pesticide anywhere around the location of its application. The Maine Board of Pesticide Control uses these models, such as for drift of pesticides applied as aerosol drops by sprayers.

Health effect studies are widely used to aid decisions regarding pesticides and other pollutants. Although it is helpful to consider isolated cases, the major method to determine health effects is the epidemiological study, which looks at aspects of the health of large numbers of people.

Another component of pesticide law, is that it is required that the information on the pesticide container label is supported by science and is followed by applicators. For example, for sprayed pesticides, there are requirements concerning droplet size limits (controlled by spray nozzle adjustments) and types of weather conditions when spraying should not occur.

In most states, including Maine, there are requirements that companies that apply pesticides commercially must be licensed and trained, and must report annual amounts of various types of pesticides applied by geographic region. The Maine Board of Pesticide Control (BPC) has an extensive training program for commercial pesticide applicators in Maine ([provide web site](#)). In their written guidance, the federal and Maine BPC state that the goal is to minimize pesticide use and that applicators consider using lesser amounts or alternatives such as organic substances.

So, there are clearly already many federal and state laws and regulations concerning pesticide use. But many citizens would like to see further pesticide controls. In Maine, Towns are allowed to have their own focused pesticide ordinances, above and beyond the federal and State laws. Several Towns have already passed pesticide ordinances and several others are going through the process. In all of these cases, the proposed ordinance must be discussed in public forums and meetings and voted on.

For several years, the Town of Kennebunkport has been discussing the need for their own pesticide ordinance. In the Kennebunkport Growth Planning Committee Community Survey in 2018, the following results are relevant to the current proposed ordinance: When asked to rank the six major concerns, 70% of respondents ranked *Natural Resources and the Environment* as “very important”, which was over twice as many as the next highest rank concern. 69% of the respondents “strongly agreed” that “*The Town should continue to support and preserve the fishing, lobstering, and shellfishing industries within the Town*”. 49% of the respondents “strongly agreed” that “*The Town should play a more active role in protecting sensitive environmental areas through measures such as enhanced regulations for septic systems, fertilizer and pesticide application, etc.*” The KCC distributed a more focused survey to Town residents in April 2022, emphasizing pesticide and fertilizer issues. The results were similar to those in 2018, with about 70% of respondents agreeing that there should be additional restrictions on pesticide and fertilizer use.

Given the above background, the KCC has developed Phase 1 of the ordinance described in more detail below.

2. Definitions

Application: The use of pesticides and/or fertilizers on public or private property, including but not limited to lawns and landscapes, trees and shrubs, athletic fields, outdoor recreation facilities,

campgrounds and golf courses.

Commercial Applicator: A sole proprietorship or business entity, whose use and application of pesticide and/or fertilizer is provided as a service for which compensation is received.

Drift: Pesticide aerosol or vapor that is transported by the wind.

EPA: The US Environmental Protection Agency.

Fertilizer: Any material of synthetic, natural, or organic origin that is applied to soils or to plant tissues to supply one or more nutrients that facilitate the growth of plants.

Herbicide: Included under the “pesticide” category, and designed to control, desiccate or kill plants, trees, weeds, or grasses, and their seeds.

MBPC: Maine Board of Pesticide Control.

Natural, Organic, or “Non-Synthetic”: A substance that is derived from mineral, plant, or animal matter and does not undergo a “synthetic” process as defined in the Organic Foods Production Act, 7 U.S.C. & 6502(21), as the same may be amended from time to time.

Neonicotinoid: A class of neuro-active insecticides including, but not limited to, acetamiprid, clothianidin, imidacloprid, nitenpyram, nithiazine, thiacloprid, and thiamethoxam.

Nonsynthetic: A natural substance that is derived from mineral, plant, or animal matter and does not undergo a synthetic process.

Pesticide: Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating and pest; any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant. Herbicides, fungicides, insecticides, miticides, and rodenticides are considered pesticides. This includes any pesticide regulated by state or federal law. This does not include other biological agents not regulated as pesticides by the Maine BPC or the EPA, such as substances used to control mites, nematodes, parasitic wasps, snails.

Runoff: Water flowing over the land surface or artificial surfaces, and possibly entering a stream and finally the ocean. Pesticides and fertilizer can be carried along with the runoff water. Even if the runoff water evaporates before it travels 100 feet or more, it deposits the pesticide or fertilizer at the location where it evaporates.

Spraying: - Any pesticide application made by using pressurized apparatus to disperse the pesticide in the air as small aerosol drops.

Synthetic: A substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally-occurring sources, except that such term shall not apply to substances created by naturally occurring biological processes.

Toxic: Containing or being poisonous material when capable of causing significant health effects.

Water Body: Any lake, pond, river, stream, ocean, or tidal areas as those terms are defined in the Town’s Zoning Ordinance, Chapter 27 of the Code of Ordinances.

Wetland: A coastal saltwater or inland freshwater wetland (includes intermittent water cover and soil saturated with water) as defined in the Town’s Zoning Ordinance, Chapter 27 of the Code of Ordinances.

3. Table of basic pesticides and fertilizers

There are many pesticides and fertilizers, and they have various chemical names and product names. At the garden store or hardware store, for each specific pesticide or fertilizer use, there are multiple different bags with multiple brand names on the shelves. Since the typical town resident cannot keep up with all the brand name options and their chemical composition, the table below attempts to summarize the major categories in a simple table. There are three columns. This first column describes the purpose, the second column lists some organic and synthetic names, and the third column lists some representative product names.

Table 1 List of Major Categories of Pesticides and Fertilizers

Purpose	Chemical name	Example of product name
Kill or deter ticks and mosquitos and wasps	Neonicotinoids pyrethrins (organic) pyrethroids (synthetic) permethrin (synthetic)	Many
Kill grubs and other insects and larvae in soil	milky spore (organic) carbonyl (synthetic) trichlorfon (synthetic)	Many
Kill cabbage caterpillars and other leaf eaters	bacillus thuringiensis (organic) carbaryl (synthetic) zeta-cypermethrin (synthetic)	Sevin (synthetic)
Kill termites, wasps, ants	boric acid (organic) white vinegar (organic) fiprinol (synthetic) imidacloprid (synthetic)	Termidor (synthetic contains fiprinol)
Herbicide to kill broadleaf and other weeds and vine growth	herbicidal soap (organic) 2,4-D, MCPs, dicamba (synthetic)	Roundup (synthetic)
Herbicide to prevent seeds sprouting (pre-emergent)	corn gluten (organic) long list of synthetic: trifluren, siduron, isoxben, dithiopyr, prodiamir	Many synthetics on store shelves

Fertilizers without pesticides or herbicides	<p>manure (organic) sludge from municipal plant (organic, except contains residual pollutants), mulch/compost (organic), seaweed/fish products (organic)</p> <p>classic NPK fertilizer (synthetic) - Three numbers represent percent Nitrogen (N), Phosphate (P₂O₅), and Potash (K₂O).</p>	Classic NPK (with three numbers) fertilizers are produced in chemical plants where other chemicals are transported in and combined to make the final chemicals and proportions.
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4. Pesticide and Fertilizer Applicant Registration Required.

No sole proprietor or business entity shall engage in the application of pesticides and/or fertilizers within the Town without first having registered to do so. Registrations should be renewed annually and are valid from 1 January through 31 December of the following year. Registration forms and processes shall be administered by the Code Officer or his designee. Registration shall include, as a minimum, the following information:

1. Personal name of company name and address
2. Copy of State of Maine Commercial Master Pesticide Applicator license, where applicable
3. Annual registration fees shall be as described on a fee schedule established by the BOS. Said fee schedule may be amended by BOS order from time to time.

5. Pesticide and Fertilizer Application Reporting.

By 31 January of each year, any sole proprietor or business entity that received compensation for the application of pesticides and/or fertilizers must provide a summary report of applications made in the Town for the past year.

Reports must include the following for pesticides:

- a. Specific addresses as well as general location of applications, identified as four quadrants:
 - 1) Northwest of Main and North Streets,
 - 2) Southeast of North Street, and north of Beachwood and West of Goff Brook,
 - 3) South of Beachwood and Batson River,
 - 4) North of Batson River and east of Goff Brook.
- b. Dates of application
- c. EPA registration number for each pesticide used, where applicable. Pesticide and combination product names used, whether identified as synthetic or non-synthetic, and total undiluted formulation (in pounds or gallons), with total areas treated as listed and as amended on the Commercial Applicator Annual Summary Report required by the Maine BPC.

Reports must include the following for fertilizers on turf:

- a. Specific addresses as well as general location of applications, identified as the same four quadrants listed above under pesticides
- b. Dates of application
- c. Fertilizer and combination product names used, whether identified as synthetic or non-synthetic, including total granular or undiluted or liquid formulation (in pounds or gallons), including the ratio of nitrogen (N), phosphorous (P) and potassium (K).

d. Weight and square footage or acreage applied.

To simplify the reporting and also the analysis of the results by the Town, a standard Excel spreadsheet is available with the needed information clearly listed.

Because there is significant use of pesticides and fertilizers by individual property owners, who purchase and apply the materials themselves, we are requesting that Town residents and businesses and government entities voluntarily fill out the Excel spreadsheet for their properties.

6. Pesticide Notification Registry for Town Residents

NOTE: The Maine BPC currently has a pesticide notification registry where persons who do not want to inhale or otherwise be subjected to pesticides applied near them can fill out a form and send it to the BPC. However, the form must be sent in before 31 December of the year prior to the growing season of interest. So, if you miss the 31 December deadline, your submittal applies to the following year. For example, if you submit it on 15 January 2022, it applies in 2023. In addition, the form requires the submitter to provide "owners/lessees and street addresses of all properties within 250 ft of the street address to be listed on the registry". In other words, all the burden is on the resident who does not want pesticides applied in their area.

In view of the State's imbalanced registry notification methodology, the Town of Kennebunkport requires the procedure to be turned around so that the burden is on the company applying the pesticide, and not the resident requesting notification of nearby pesticide application. Residents can, at any time, put their name on the Town pesticide notification registry, maintained by the Code Officer or designee. Then, prior to making any pesticide application, a company must search the registry to determine if there is anyone on it who is within 250 ft of the planned application. All such persons shall be notified by the company of the date and time and location of the application.

Failure to notify persons on the registry shall result in a fine for each instance to be designated by the BOS.

7. Restrictions on Fertilizer Applications.

The application of fertilizers is prohibited between 1 December and 31 March.


Use of organic fertilizers is encouraged at all times Lists of acceptable organic fertilizers can be found at ([...insert web sites here](#))

No fertilizer shall be applied within 250 feet of any marsh, wetland, or other water body (tributary, stream, river, estuary, ocean).

No fertilizer shall remain on an impermeable surface (e.g., driveway, parking lot, road). The applier is responsible for sweeping off that surface, in the direction of the vegetated area that was fertilized.

No fertilizer shall be applied within 24 hours of an expected heavy rain (heavy rain is defined as a total storm rainfall greater than 0.5 inches), to avoid runoff into water bodies.

8. Violations; Penalties for Non-compliance.

Violations can be reported to the Code Officer and CC by anyone. In addition the Code Officer and CC members will be randomly observing any pesticide applicators. 

Failure to register or provide adequate reports (see Sections 4 and 5) will result in a \$?? fine for each instance.

9. Administration and Enforcement.

The Code Officer will implement, administer, and enforce the provisions of the Ordinance. Appeals will be considered by the **CC**. The CC will use the reported application data to determine whether total use is increasing or decreasing from year to year. The results may guide development of future new ordinances

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