Prescribed Drinking Water Treat - Handling and Storage of Pesticides

List of pesticides based on active chemical ingredients. List is subject to change and should not be considered complete. Refer to OMAFRA's Guide to Weed Control for current list.

Storage for retail sale or use in extermination:
Storage of >250kg/L but not more than 2,500kg/L
Mecoprop: IPCO Premium 3-Way XP Turf Herbicide, Killex 500, Par III, Tri-Kil, Trillion-P Liquid Turf Herbicide, Weeaway Premium 3-Way XP Turf Herbicide, Compitos, Mecoprop, Turf-Rite 2 + 2, IPCO Premium 2-Way XP Turf Herbicide, Sword, Target, Tracker XP
MCPA (2-methyl-4-chlorophenoxyacetic acid): MCPA Amine 500, MCPA Amine 500, IPCO, MCPA Amine 500, Nufarm, MCPA Amine 600, Nufarm, MCPA Ester 500, IPCO, MCPA Ester 500 Nufarm, MCPA Ester 600, Nufarm, MCPA Dosium 300, MCPA Sodium 300, IPCO, MCPA Sodium 300, Nufarm, Trophy B, Clovitox Plus, Topside, Topotox Plus, Badge, Buctril M, Logic M, Mextrol, DyVel, Sword, Target, Tracker XP, Refine M7
Storage of >2,500kg/L
Atrazine: AAtrex Liquid, Converge 480, Marksman, Propero, Primextra II Magnum, Lumax
Dicamba: IPCO Premium 3-Way XP Turf Herbicide, Killex 500, Par III, Tri-Kil, Trillion-P Liquid Turf Herbicide, Weeaway Premium 3-Way XP Turf Herbicide, Banvel II, Hawkeye Power, Oracle, Vanquish, VMD 480, Marksman, Propero, DyVel, Sword, Target, Tracker XP, Distinct, Accent Total (Accent + Distinct), Ultim Total (Ultim + Distinct), Peakplus(Peak + Banvel II), Battalion (Elim + Dual II Magnum + Sencor)
Dicholorophenoxy Acetic Acid-(D 2,4): Aqua-Kleen, Barrage, Weedone
Dicholropropene –1, 3: Desormone, Desormone XT, Dichlorprop D, Dichlorprop BK 700, Estaprop Plus, Estaprop XT, Turboprop
MCPA (2-methyl-4-chlorophenoxyacetic acid) and Mecoprop: **see above**
MCPB (4-(4-chloro-2-methylphenoxy)butonic acid): Clovitox Plus, Topside, Tropotox Plus
Metalaxyl: HELIX XTra Seed Treatment
Metolachlor or s-Metolachlor: Battalion 7(Elim + Duall II Magnum + Banvel II), Boundary 7 (Dual II Magnum + Sencor), Boundary KZD, Dual II Magnum, Lumax EZ, Lumax

Significance Criteria		Policy Approach	
WHPA	**Score**	**Existing**	**Future**
A & B	10	RMP	RMP & Prohibit Quantities >2,500kg/L

Storage at a facility where it is manufactured, processed or wholesaled:
>2,500kg/L
MCPA (2-methyl-4-chlorophenoxyacetic acid) and Mecoprop: **see above**

Significance Criteria		Policy Approach	
WHPA	**Score**	**Existing**	**Future**
A & B	10	RMP	Prohibit

Protecting our source water for future generations

Handling and Storage of Pesticides

Fact Sheet

For more information:

Source Water Protection Program Coordinator
519-539-9800 ext. 3126
sourcewaterprotection@oxfordcounty.ca
www.oxfordcounty.ca/sourcewaterprotection

Oxford County
Growing stronger together

Pesticide Storage, Disposal and Handling

The application, handling and storage of pesticides are considered drinking water threats under Ontario's Clean Water Act, 2006. Pesticides are defined in Ontario's Pesticides Act, 1990 as:

…any organism, substance or thing that is manufactured, represented, sold or used as a means of directly or indirectly controlling, preventing, destroying, mitigating, attracting or repelling any pest or altering the growth, development or characteristics of any plant life that is not a pest and includes any organism, substance or thing registered under the Pest Control Products Act (Canada).

There are many kinds of pesticides, but under the Clean Water Act, 2006, the pesticides of interest are the chemicals used to control weeds (herbicides), or fungi (fungicides), or those used as a soil fumigant to control fungi, nematodes and weeds. The province banned the use of cosmetic pesticides in 2009 through Regulation 63/09.

Impact on Water Sources

Insecticides, herbicides, and fungicides can contaminate water through direct application, runoff, and atmospheric build-up. Water runoff can carry soil particles with pesticides from treated fields or spills into streams, ditches, ponds, and wells, affecting the health of both people and livestock, and the quality of produce. The greatest effect from surface runoff occurs when rain falls within 24 hours of a pesticide application. Some pesticides are persistent in the soil and can pose a problem for months. If herbicides are involved, the resulting contaminated water may also cause problems if used for plant irrigation.

Pesticides could make their way into groundwater as a result of the application to land or through spills or leaks resulting from handling and storage. Pesticides are potentially toxic to humans and other animals and may cause a variety of acute and delayed health effects in those exposed, including cancer.

They can also poison fish and wildlife, contaminate food sources, and destroy animal habitat.

Integrated Pest Management (IPM)

Integrated Pest Management can mitigate this damage as well as save money by taking into account specific soils, climate and weather patterns, pest history, and crop conditions.

Some pesticide best management practices are:

- Use products immediately and apply them exactly as instructed
- Purchase only the necessary amount for the job so products can be used up quickly– this avoids mixing and long term storage of larger quantities of concentrated products
- Look for more natural product options and strategies
- Never discard pesticides down the drain, toilet, sewer, or in the trash
- Check your municipality's website for collection information and disposal sites for pesticide remains and containers
- Do not rinse containers in a household sink and do not pour rinse water down the drain
- Under no circumstances should a pesticide container be burned, reused, or used for storing any other substance

To reduce pesticide losses from treated fields located along streams and ponds, consider planting across the slope. Buffer zones of 10 m can reduce losses on relatively flat land but offer little help on sloping land. Incorporating the pesticide into the soil or using a foliar application after the crop appears results in lower losses than when applying to bare soil.

TIPS to Protect Water Supplies

- Always read the label before you apply any pesticide
- Keep concentrates in a locked storage area (out of the floodplain)
- Triple rinse and properly dispose of empty pesticide containers
- Mix concentrates 30 m away from any water supply
- Use appropriate buffer zones and berms to avoid surface water contamination by spray drift or runoff waters
- Follow the setbacks listed on the pesticide label
- Do not spray within 10 m of shallow wells or other water supplies

Oxford Source Protection Plan

Policies in the Oxford Source Protection Plan address the use of pesticides in the specific vulnerable areas. Activities can be considered significant drinking water threats when they occur in the most sensitive areas near municipal drinking water sources this includes: the most vulnerable zones surrounding wells, called Wellhead Protection Areas (WHPAs).

Prohibition – Application, Storage and Handling

Application

The application of pesticides within the areas with vulnerability 10, now and in the future, will be addressed through the use of risk management plans.

Storage and Handling

The storage and handling of pesticides within the area with vulnerability 10, for existing activities will be addressed through the use of risk management plans. In the future, the storage and handling of pesticides within the area with vulnerability 10 will be prohibit or addresses through the use of risk management plans. The policy to apply will depend of the kind of pesticides and its amounts. For more details see the table on the back of the pamphlet.

Risk Management Plans

The Risk Management Official will work with the property owner to develop a plan to ensure the safe application, handling and storage of pesticides. The risk management plan will consider each property on a case-by-case basis and incorporate other relevant existing measures already in place. A Risk Management Official will be in touch with anyone requiring a risk management plan.

Restricted Land Use

This allows the municipality to identify the areas where the application and or storage and handling of pesticides are either prohibited or require a risk management plan. This will allow the municipalities to create their own internal process to ensure compliance with the Oxford Source Protection Plan.

Education and Outreach

A policy calls for a program to raise awareness in the vulnerable areas surrounding municipal water sources regarding the importance of protecting drinking water from contamination from pesticides. Another policy calls for municipalities to provide opportunities for residents to dispose of hazardous materials in an appropriate manner such as through Household Hazardous Waste collection programs.