Glossary

Acetylcholinesterase: An enzyme in the body that is critical for proper functioning of the nervous system.
Acute: The term used to describe a single or short period of exposure and the health effects that occur immediately after exposure.
Blood-brain barrier: A defensive barrier formed by the blood vessels and supportive tissues of the brain that prevents some toxic substances found in the blood from entering the brain.
Brain growth spurt: The period of development of the human brain (from the third trimester of pregnancy through the first two years of life) that coincides with rapid structural and biochemical changes that accompany the brain's maturation. It is also associated with various motor, sensory and cognitive milestones.
Carbamates: A class of pesticides that are commonly used against various insect pests. They inhibit the enzyme **acetylcholinesterase** and therefore cause malfunctioning of nerve transmission that is reversible (unlike organophosphates, see below).
Chronic: A term referring to health effects that are delayed or occur weeks, months or years after exposures that occur repeatedly (or intermittently), over a longer period of time.
Dose: The actual amount of a substance that ends up being delivered to critical body tissues or organs. It is often expressed as an amount per unit of body weight of the organism.
Epidemiology: the study of epidemic disease, with a view to finding means of control and future prevention. This applies to the study of epidemics such as smallpox and cholera, and all forms of disease that relate to the environment and ways of life. Epidemiology includes the study of associations between smoking and cancer and diet and coronary disease.
Exposure: Actual contact with a chemical that can occur by several routes including breathing it in (inhalation), absorption through the skin or taking it in by the mouth (ingestion).
Fungicides: Pesticides that are used to treat fungi that cause disease in plants and fruit.
Hazard: Any thing or substance that can cause harm to health or to the environment
Heat Island: The US EPA provides the following explanation of the heat island effect: On hot summer days, urban air temperatures can be 2-10°F hotter than the surrounding countryside. Scientists call this phenomenon the "urban heat island effect." Heat islands form as vegetation is replaced by pavement, buildings and other structures necessary to accommodate growing populations. These surfaces absorb, rather than reflect, the sun's heat, causing surface temperatures and

overall ambient temperatures to rise.
Herbicide: A type of pesticide that works against weeds by killing or inhibiting growth of these unwanted plants.
Immunotoxicity: The ability of a substance to have harmful effects on any aspect of the immune system.
Insecticide: A type of pesticide that kills or harms pest insects.
Integrated Pest Management (IPM): Health Canada defines IPM as a decision-making process that uses all necessary techniques to suppress pests effectively, economically and in an environmentally sound manner to sustain healthy landscapes. The City of Toronto defines IPM as a decision-making process that is based upon, and assumes that proper horticultural and plant health care has been utilized in the first place. It provides a framework for making rational pest control decisions based upon an understanding of and close observation (monitoring) of living systems. IPM considers the wide range of available measures to suppress pests effectively, economically and in an environmentally sound manner to sustain healthy landscapes.
Integrated Plant Health Care (IPHC): The City of Toronto defines IPHC as an ecologically-based approach to establishing and maintaining developed landscapes. It integrates an understanding of living systems, urban stresses, human needs and horticultural principles in developing maintenance solutions that are environmentally sound, healthy and sustainable.
Leukemia: Several types of cancer where the body produces large numbers of abnormal blood cells, usually white blood cells.
Multiple myeloma: A type of cancer where specific white blood cells called plasma cells are produced in large numbers. These abnormal cells are called myeloma cells and they tend to collect and form tumours in different bones in the body.
Neuroblastoma: A rare type of childhood cancer that manifests as a tumour of the adrenal gland in the brain or in nerve tissues that are related to the adrenal gland. It can occur in children from newborn up to age ten.
Neurodegenerative disorders: Diseases that are characterized by progressive deterioration of neurological function that can cause a wide range of disabilities and symptoms depending on the types of nerve cells that are affected.
Neurotoxicity: The capacity of a substance to destroy or negatively affect nerve cells or affect behaviour.
Non-Hodgkin's lymphoma: A specific type of cancer of lymphatic tissue (part of the immune system) that involves formation of solid malignant tumors. The non-Hodgkin's group of lymphomas is distinguished from one specific rare type of lymphoma known as Hodgkin's lymphoma.

Non-target species: Any plant, animal or insect species other than that targeted to be affected by a pesticide.
Organophosphates (OPs): A broad group of pesticides that represent the most commonly used insecticides in agriculture and home uses. They work by inactivating the enzyme acetylcholinesterase (AchE) and therefore cause malfunctioning of nerve transmission that is irreversible (unlike carbamates, see above).
Persistence: The characteristic of a substance that defines the time required for it to degrade in the environment.
Pesticides: The provincial Pesticides Act says that pesticide means 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 of 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). The Federal Pest Control Products Act defines a pesticide as: "any product, device, organism, substance or thing that is manufactured, represented, sold or used as a means for directly or indirectly controlling, preventing, destroying, mitigating, attracting or repelling any pest. Control products include active ingredients used in the manufacture of end-use products and the end-use products themselves. This meaning includes herbicides, insecticides, fungicides, anti-microbial agents, pool chemicals, microbials, material and wood preservatives, animal and insect repellents and insect and rodent controlling devices.
As noted in the text, this discussion in this document focuses on lawn care pesticides.
Phenoxy acids: Also known as chlorphenoxys, this class of pesticides are herbicides most commonly used in the removal of broad-leaved weeds such as dandelions and can be found in "weed and feed" formulations. They act by disrupting normal growth in selective plants.
Prudent avoidance: A prudent avoidance policy encourages the adoption of individual or societal actions to avoid unnecessary exposures to potential health threats that entail little or no cost.
Pyrethroids: A specific class of pesticides that are used to remove garden insects. They are the synthetic versions of a compound derived from chrysanthemums (pyrethrins) that has "natural" pesticide properties.
Residue: The amount of a pesticide or its breakdown products that remains on surfaces in the environment.
Risk Assessment: A process that evaluates (and estimates) either the environmental or health risk from exposure to a pollutant by considering both exposure information and toxicity data for that pollutant.

Subclinical: The appearance of illness or harm where symptoms and signs are not recognized or detected by traditional clinical examination or laboratory tests.
Toxicity: The ability of a substance to be poisonous or to have some adverse effect on biological functioning of an organism.
Toxicology: The branch of medicine that studies the nature, properties and effects of chemical agents on living organisms.