

Glossary of Terms

Abandoned well

An unused well, left unattended and not maintained for future use.

Application rate

The recommended amount of fertilizer, manure or pesticide applied to a specific area; for example, 1 kg per hectare (0.9 lb per acre).

Aquifer

A geologic formation or stratum that yields significant quantities of water. Aquifers are the source of water for wells and springs.

Backflow

The unwanted, reverse flow of liquids into a piping system.

Beneficial Management Practice (BMPs)

Any agricultural management practice that mitigates or minimizes negative effects and risks to the environment by maintaining or improving water, land and air quality and biodiversity.

Bioconcentration

Accumulation of a substance in the tissue of an organism.

Biodiversity

Biological diversity: the variety of living organisms, **ecosystems** and ecological processes.

Biomagnification

A cumulative increase in the concentration and toxicity of a persistent substance in successively higher levels of the food chain.

Biosecurity

Any action or practice involving precautions to reduce the risk of introducing diseases to a farm site or region where they do not already exist.

Bollards

Barriers constructed of a sturdy material, such as steel piping filled with cement, set up close to facilities such as fuel tanks or buildings to guard against collision damage.

Buffer zone

An area of land adjacent to a water body or sensitive area such as a riparian area that is developed or conserved to reduce erosion, intercept pollutants and provide wildlife habitat. The buffer zone is undisturbed or left in permanent vegetation.

Closed handling system

A system for transferring fertilizers or other chemicals directly from the storage container to the applicator equipment, so humans and the environment are never exposed to the chemicals.

Constructed wetland

A man-made wetland system constructed to capture and treat agricultural wastewater including runoff that relies on physical, chemical and biological processes to treat the wastewater.

Contamination

The alteration of a material by the introduction of a chemical or other substance that makes the material unfit for a specified use.

Cross connection

A direct arrangement of piping that allows the potable water supply to be connected to a source that contains a contaminant. For example, a garden hose with the end submerged in a stock tank, laundry tub or sprayer tank or a pasture pipeline system with submerged float valves.

Cryptosporidium

A single-celled, microscopic parasite that lives in the intestines of humans and animals. The dormant form is excreted in the stool of infected animals and humans and presents health risks.

Ecological processes

The relations of organisms to one another and to their physical surroundings or continuous action or series of actions strongly influenced by one or more ecosystems.

Ecosystem

A system of living organisms interacting with each other and their environment, linked together by energy flows and material cycling.

Escherichia coli (E.coli)

E. coli are bacteria found in the intestines of humans and warm-blooded animals, and are necessary for a number of important functions, including digestion. However, different strains present a health risk, such as E. coli O157:H7, produce powerful toxins causing severe illnesses such as bloody diarrhea, fever, vomiting and kidney failure.

Gearing up and throttling down

A driving technique used to improve tractor fuel efficiency and reduce noise level. The driver reduces the engine speed and shifts up a gear to maintain the same ground speed.

Giardia

A single-celled, microscopic parasite that lives in the intestines of humans and animals. The dormant form is excreted in the stool of infected animals and humans, presenting health risks.

Greenhouse gases

Water vapour, carbon dioxide, ozone, methane, nitrous oxide and chlorofluorocarbons that contribute to the greenhouse effect trapping heat in the earth's atmosphere.

Greywater

The relatively clean wastewater that does not contain human or animal wastes, but wastes from water used in tubs, sinks or washing machines.

Groundwater

Water found below the ground surface. This water is free to move by gravity, soaking into the ground from wetlands, lakes or precipitation. The upper surface of the groundwater forms the water table.

Habitat

The environment in which a plant or animal lives.

Hazard

A source of contamination that has the potential to cause a negative effect.

Impermeable

Restricted movement of liquids, gases or odour through a given material.

Infiltration

The downward movement of water through cracks, joints and pores in soil and rock.

Leaching

The downward movement of water carrying dissolved or suspended substances through the soil profile.

Minimum Distance Separation (MDS)

The absolute minimum distance established as a setback or buffer to reduce nuisances and environmental risks between sources of contamination or hazards such as sewage or manure storage facilities and any receptors such as adjacent land, residences, water bodies or water sources.

Nuisance

Any activity that arises from unreasonable, unwarranted or unlawful use of a person's own property causing obstruction or injury to another person or the public. The activity creates smoke, odour, noise or vibration resulting in annoyance, inconvenience, discomfort and/or damage as well as interferes with the reasonable and comfortable use of a person's property.

Nutrient

An element essential for plant or animal growth. Major nutrients include nitrogen, phosphorus, carbon, oxygen, sulphur and potassium.

Organic Matter

Comprised primarily of plant residues at various stages of decomposition.

Pathway

A pathway describes how a hazard travels from a source to a receptor. Pathways can be water, air, soil, human, animal or any combination.

Pitless Adaptor

A mechanical device used to provide frost-free, sanitary well connections that are designed to replace pump houses and well pits.

Pressure rinse

A method to rinse pesticide containers properly. Water is sprayed under high pressure against all inside surfaces of the container, and the rinsate is added to the sprayed tank.

Receptor

A receptor is something that has the potential to be affected, usually in an adverse way, by a given hazard.

Rinsate

Wastewater from cleaning the inside of product containers or chemical application equipment.

Riparian area

Riparian areas are lands adjacent to surface water bodies where the soil and vegetation are strongly influenced by water. Riparian areas stay greener longer and produce more forage than uplands, partly due to soils and mostly due to an elevated water table.

Runoff

Water that moves across the land as overland flow or that moves laterally in an unsaturated zone as interflow or subsurface flow.

Run-on

Water that flows onto a given area.

Secondary containment

Any structure, such as a dike, built around a chemical storage area to hold 110 percent of its maximum volume.

Seepage

Seepage is the slow movement of water through the soil from a large undefined area into or out of a surface or subsurface water body. In contrast, a spring is where water emerges from a defined location.

Stewardship

Stewardship can be defined as an individual's responsibility to manage resources and to ensure resources are sustained or enhanced for future generations.

Surface water

All water found on the ground surface, such as lakes, ponds, sloughs, wetlands, dugouts, rivers, creeks, temporary streams, canals and drainage ditches.

Sustainable

Practices that provide a flow of goods and or services over a long period of time without degrading the environment or lowering productivity.

ULC and CSA approved

Tested and approved for safety by the Underwriters' Laboratories of Canada (ULC) and the Canadian Standards Association (CSA). Some items, such as chemical storage containers, must have ULC approval.

Vegetative filter strip

Vegetation planted along or around a sensitive area to slow down the movement of water to help settle out solids, and filter contaminants by providing oxygen to microbes that transform contaminants into less harmful forms.

Water body

Any location where water flows or is present. Water bodies include lakes, wetlands, aquifers, rivers and sloughs.

Water source

A developed or natural structure containing raw or potable water that is used for a specific purpose.

Water table

Upper level of the soil zone, where all spaces between the soil particles are filled with water and the soil is saturated.

Waterway

A low path where surface water collects and flows.

Well cap

A commercially manufactured device used to cover the top of a well casing. This cap prevents surface water, solid material or other substances from entering the well through the top of the well casing.

Well casing

Steel, plastic pipe or concrete tile installed as a lining when a well is constructed. A casing serves to strengthen the well bore hole, so it does not collapse. It also prevents contaminants from entering a well and allows placement of a pump or pumping equipment.

Well pit

Lined, shallow excavation constructed around the top of the well casing of a drilled well. It is no longer legal to construct a well pit in Alberta.



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