

GET THE FACTS

ABOUT ORGANICS IN ALBERTA



LET'S TALK ABOUT PESTICIDES & GLYPHOSATES

Have you ever wondered whether organic produce contains pesticides? If you've heard about the "glyphosate debate", you might wonder why it's necessary at all to spray synthetic pesticides like glyphosate on crops.

We've put together some essential information about pesticides so you know what's in your food and why it matters.

WHY DO FARMERS USE PESTICIDES?

Pesticides are substances used by farmers to control different types of pests, and herbicides are a specific type of pesticide used to control weeds. Weeds are among the most persistent pests that inhibit a crop's growth. Herbicides attack weeds and either stunt their growth enough for the crop to out-compete them, or kill them outright.

Herbicides are actually used for non-agricultural applications as well. Think roadsides, parks and playgrounds, sports fields, or industrial areas in your area; they've got to keep those dandelions at bay! However, in many areas the use of herbicides for these cosmetic purposes may not be allowed.

Some consumers and environmental groups are worried about the potential impact of pesticides. They are concerned with the potential risks to human health and the environment; however, the Canadian Food Inspection Agency is very thorough when it comes to monitoring both synthetic and natural pesticide use and their residues. They make sure our food is safe. You can check out their monitoring and sampling practices by visiting their website.

HOW ARE PESTICIDES CONTROLLED IN CANADA?

Health Canada monitors the use of pesticides in conjunction with the Pest Management Regulatory Agency (PMRA). The Pest Control Products Act (PCP) governs pesticide use in Canada.

Only certain pesticides are approved. A Pest Control Products registration number on the label will tell you that a pesticide is registered with the PMRA. You can also search by product or ingredient on the Government of Canada website or you can look at the registered product list, which currently contains 321 entries. Each approved pesticide is re-examined by the PMRA and Health Canada after 15 years.

Health Canada establishes maximum residue limits (MRLs) for pesticide residues in food. Like any substance, the amount of pesticide in food matters when it comes to health and safety. Although pesticide residue does exist on some Canadian products, Health Canada ensures that the MRLs are set incredibly low and most products do not even come close to that limit.

However, handling the product can be dangerous. Farmers and workers need to take precautions when working with pesticides to avoid skin contact that can cause rashes, swelling and blistering similar to this incident report on the Health Canada website.

PESTICIDE USE ON THE RISE IN CANADA

While there was a slight decrease in total herbicide use in the first few years after the introduction of herbicide resistant



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genetically modified organism (GMO) crops, herbicide sales in Canada have risen 199% between 1994 and 2016. This increase in herbicide use is due to the adoption of more intensive crop production methods, fueled largely by advances in agriculture science focused on maximizing crop yield.



This graph represents the volume of herbicides sold in Canada from 1990 to 2016 and was collected from Canadian Biotechnology Action Network. *Data for 1990-2006 is from the UN Food and Agriculture Organization and data from 2008-2016 is from Health Canada. This graph is sourced directly from the Canadian Biotechnology Action Network (cbn).

GLYPHOSATE

Glyphosate, in particular, has caused major controversy among scientists, interest groups, and consumers due to its widespread use around the world. Ever hear about the glyphosate debate? Glyphosate is an herbicide that is widely known around the world. It is commonly sold under the trade names Round-Up®, Rodeo®, Xtreme®, ByeBye Weed®, TotalEx®, and Wipe Out® and as of 2016, there were 194 products registered in Canada with glyphosate listed as an active ingredient. It's the top-selling herbicide ingredient in Canada. It's been used for many decades. It's also been approved in many other places globally, including the US and Europe.

Glyphosate's widespread use can be attributed to a number of factors:

1. It's a non-selective herbicide that is very effective at killing most vegetation, including weeds.
2. Zero tillage farming practices gained popularity as a way to minimize soil erosion and maintain soil moisture, both critical to the growth of crops. Historically, tillage was used to control weeds prior to seeding a new crop. With glyphosate, farmers can wait until the weeds emerge in the spring and then spray and kill them before seeding directly into the untilled soil.
3. Many agriculture crops were genetically engineered to resist glyphosate and so farmers could spray one chemical (glyphosate) on their crops and control all of their weeds very inexpensively when compared to the cost of other herbicides they previously needed to use.
4. Glyphosate was thought to be safer to handle than alternative chemicals and so farmers were more willing to use it.

Do Organic Farmers Use Pesticides?

Organic farmers are permitted to use specific variants of natural pesticides. These are pesticides farmed from natural sources or mined from the ground. They may include vinegar, soaps, or sulfurs. However, organic farmers cannot use synthetic pesticides on their crops, including glyphosate.

Organic farmers use sustainable and natural processes to promote healthy growth in their crops. Techniques like tilling, crop rotation, and green manure are used to help deal with pests and weeds. Farmers may also plant cover crops and promote biodiversity in their fields in an effort to minimize competition or damage from pests. Biodiversity uses different plants and organisms to combat specific species of insects and weeds.

HOW CAN YOU AVOID PESTICIDES?

Researchers and scientists say avoiding produce altogether is not the answer. Firstly, fruits and vegetables are an excellent source of nutrition. Second, testing and regulations are in place to ensure pesticide levels never reach a dangerous level in your food.

It's also important to keep in mind that not all conventionally farmed products sold in Canada contain pesticides. Many conventional farmers use techniques similar to organic standards to control weeds and pests in their crops.

Buying organic food is a great way to avoid synthetic pesticides, but it's important to note it isn't guaranteed to be 100% free of synthetic pesticide. Wind and rain can transfer pesticide residues from nearby crops where pesticides have been applied, which is difficult if not impossible to avoid. However, Health Canada monitors all food products for residue, including organic products, so as consumers we can be assured the food we eat is safe. Further, under the Canada Organic Regime, organic crop contamination greater than 5% of the maximum residue limit set by Health Canada is investigated to find, and eradicate the source of the contamination.

One thing all consumers can do to minimize pesticide residue on fruits and vegetables, whether it's organically produced or not, is to wash produce before eating it. It's not 100% effective but it is an extra precaution that takes little time and effort.



WAYS TO LEARN MORE

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