

# What's the deal with pesticides?

Agricultural pesticides, including insecticides, herbicides, and fungicides are used in **conventional** and **organic** agriculture to protect crops from insects, weeds, and diseases.

Let's learn more about how they help farmers grow safe, healthy and affordable food, and how they are regulated to ensure consumer health and safety is a priority.

## Using pesticides helps:



Reduce crop loss **by up to 50%**



Improve the quality of food grown, **reducing waste**



**Keep food costs down** for consumers

## Aren't there other pest control options?

Yes! Pesticides are only one tool in a system farmers use called integrated pest management.

Sometimes, pesticides are the best option for controlling pests that would otherwise threaten to destroy an entire crop. However, growers monitor their crops closely and consider all of the tools available to them, which may also include:



**Biological controls**  
(introducing another insect or bacteria)



**Habitat change**  
(changing irrigation or watering practices)



**Mechanical controls**  
(using nets or traps)

## Did you know?

Without pesticides to control late blight, the disease responsible for the Irish potato famine that killed almost a million people, today's farmers would lose approximately **60% of their potato crops.**



Canadians save up to **\$4,500/yr.**

because farmers can use pesticides and biotech crops to grow stronger and healthier plants more efficiently, reducing food loss and waste.

## Pesticides are highly regulated

Health Canada's Pest Management Regulatory Agency (PMRA) leads the rigorous process to ensure the safety of any pesticide that makes it to market.

This process considers short- and long-term health impacts for people at all stages of life, as well as potential environmental impacts.

**Because of the rigorous safety testing, it takes around 12 years and \$400M before a pesticide makes it to market.**



## Are there pesticide residues on food?

Health Canada sets the acceptable amount of pesticide residues allowed to remain on food, which are called Maximum Residue Limits (MRLs).

MRLs are set at very conservative levels, far below the amount of residue we know has **no impact on health**.

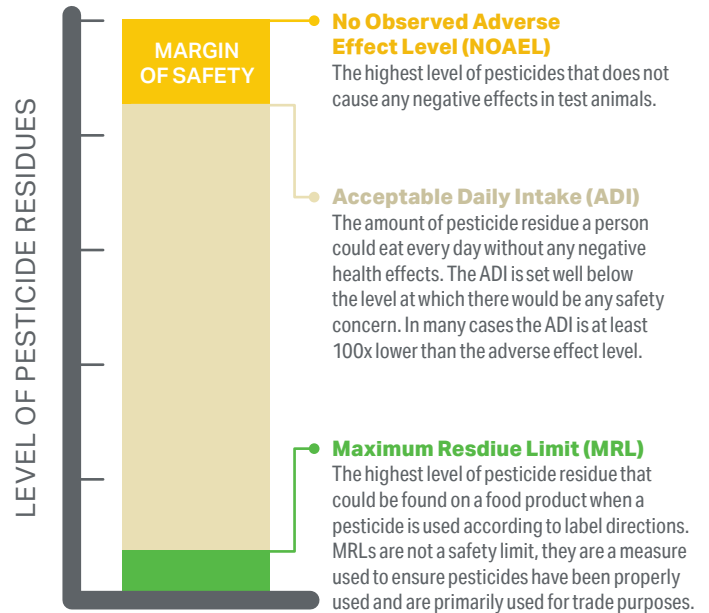
Many like-minded countries work together to align MRLs, ensuring the free-flowing trade of food around the world. They are set at very conservative levels, far below the amount of residue we know has **no impact on health**.

## How are residues on food monitored?

The Canadian Food Inspection Agency (CFIA) monitors and enforces residue limits.

**over 99%**  
of Canadian  
grown produce  
**and 94%**  
of imported fruits  
and vegetables  
test well below  
the MRLs

Any food found with pesticide residue levels above the MRL undergoes an investigation by the CFIA. Importantly, due to generous safety margins, in instances where residues are found to be above MRLs, they are still well below the safety threshold.



## Shouldn't we avoid pesticides at any level?

Testing sensitivity has become more sophisticated as technology evolves. Claims about residues found in infinitely small amounts have been making big headlines. Importantly, just because a residue is detectable, does not mean it has an impact on health.

## Did you know?

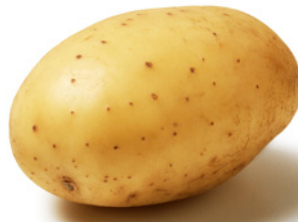
Pears naturally contain formaldehyde, a potentially harmful chemical to humans. No need to fear, it is present in amounts far below a level that could cause harm.

## Remember, the dose makes the poison!

The harmful effect of any substance depends on the amount consumed. When it comes to pesticide residues, check out how many servings would need to be consumed per day before there is potential of a negative impact.



A woman would have to consume  
**4,166**  
servings of lettuce



A teen would have to consume  
**2,937**  
servings of potatoes



A child would have to eat  
**1,448**  
strawberries