

PESTICIDES

How Their Safety is Assessed and How Farmers Use Them

Farmers need to protect their crops from damaging pests.

Pesticides help farmers have better harvest while using resources more efficiently.

- Pesticides help farmers use water, soil, and other important resources more efficiently. For example, some pesticides are used to control weeds, which steal water from crops. And controlling weeds with pesticides can help significantly reduce soil erosion by minimizing the need to till fields. That also helps mitigate climate change by reducing carbon emissions.
- Most farmers, including both organic and conventional farmers, use some type of pesticide to keep insects, weeds, and plant diseases from hurting their crops.

Up to
40%

The annual loss in harvests to weeds, insects, and diseases. This could double without crop protection.

Farmers use pesticides sensibly in a targeted way.

Farmers apply the right protection, in the right place, at the right time, in the right amount.



RIGHT PLACE



RIGHT PRODUCT



RIGHT TIME



RIGHT AMOUNT

- There's no single solution when it comes to crop protection. Pesticides are one tool farmers can use to complement other common and effective practices, such as cover crops, tilling, crop rotation, and proper timing of planting.
- Pesticides work best when used in the right place, at the right time, and in the right amount. Weed, insect, and disease levels change every season, so farmers adapt to use only what's necessary. Modern tools like GPS guidance on sprayers and site-specific nozzles help farmers use only as much as needed.
- In the U.S., most farmers regularly complete pesticide training and certification as required by their state. State Pesticide Safety Education Programs (PSEP) provide information on the safe, precise, and effective use of pesticides. Training and certification is done in conjunction with the use of specific labeled instructions that accompany products.

Who reviews pesticide safety?

Pesticides undergo comprehensive safety assessments by regulatory authorities, such as the Environmental Protection Agency (EPA) and European Food Safety Authority (EFSA), as well as independent researchers and other experts around the world, such as the World Health Organization (WHO) and the Food and Agriculture Organization of the United Nations (FAO).

Regulatory authorities rigorously assess pesticide safety.

All pesticides undergo comprehensive evaluations by regulatory authorities before they can be sold.

- Before companies can make pesticides available to farmers, these crop protection tools must undergo comprehensive evaluations by regulatory authorities. In the U.S., the Environmental Protection Agency (EPA) requires pesticides to undergo more than 100 safety studies before they are approved.
- Even after regulatory authorities approve a pesticide for use, they continue to consider new information to assess the safety of registered products. And no pesticide's regulatory approval is permanent. In the U.S., the Environmental Protection Agency (EPA) routinely reviews registered products to determine if they should be renewed.

More than
100

The number of safety studies required by regulatory authorities before a pesticide is approved.

At least
100x

The EPA sets daily exposure limits at least 100 times below the level shown to have no negative effect in safety studies.

Resources

Pesticide Videos	Pesticides & Glyphosate	Pesticides & Food
<p>1 Minute Video About Pesticides bit.ly/1P1ahnM</p>	<p>General Crop Protection monsanto.info/2vgcU4y</p>	<p>Food Dialogues (U.S. Farmers & Ranchers Alliance) bit.ly/2rbSR6F</p>
<p>1 Minute Video About Glyphosate bit.ly/1Xpl1SY</p>	<p>Glyphosate Resource Guide conta.cc/2eNh0We</p>	<p>National Pesticide Information Portal Sheets about Pesticides bit.ly/2e68v7D</p>
<p>How do(es) Farmers/Monsanto Ensure Proper Use of Chemicals? monsanto.info/27kkAh3</p>	<p>FAQ on Glyphosate bit.ly/2f638HY</p>	<p>Common Ground Discussion About Food With Women Who Grow and Buy it bit.ly/1e3Vzzo</p>
<p>How Much Glyphosate Do Farmers Use? bit.ly/1WuX3qH</p>	<p>The Benefits and Safety of Glyphosate bit.ly/2f5BsXN</p>	<p>Best Food Facts Just the Facts. From the Experts bit.ly/1S16jQQ</p>
	<p>Safety Studies & Literature on Glyphosate: bit.ly/2DbjbiM</p>	