

Pesticides: Constructive Answers to Misconceptions



Misconceptions about farming are frustrating. Misunderstandings can affect perceptions of consumers and food chain partners. They can also feel like one more barrier in your way to producing safe, healthy, tasty food.

There's no one better than a farmer to help people understand what it takes to produce the fruits and vegetables we all rely on. Consumer perceptions about pesticides are especially complicated. By starting from a place of respect for the concerns and leading with facts, it's possible to engage in a constructive conversation about pesticides.

Some people may say: *Fruits and vegetables that have been treated with pesticides aren't safe to eat.*

Key facts: Every day, we all eat produce protected by pesticides. All pesticides are highly regulated in every country. Pesticide levels in harvested food are governed by maximum residue limits (MRLs), which are the highest amount of a pesticide permitted on harvested foods. MRLs represent trace amounts and are set by regulatory agencies around the world at levels much lower than what could possibly harm human health.

Most products used in crop protection leave no residues at all on harvested fruits and vegetables, but if you're ever in doubt about the safety of consuming foods treated with pesticides, check out the Safe Fruits and Veggies calculator.¹ This tool shows just how many fruit or vegetable servings people would have to consume in a day for pesticides to impact their health. For example, in one day, a woman could eat 3,671 servings of potatoes that have the most pesticide residue ever recorded for potatoes by the U.S. Department of Agriculture and still see no effects.

Some people may say: *We don't even know what's in the pesticides being sprayed on our food.*

Key facts: You can feel confident that any pesticide farmers use has been highly tested and regulated. In fact, in leading agriculture production countries, agricultural products require more types of data – human health, dietary and ecological – for approval than even pharmaceutical products. In the U.S., for example, every pesticide product is reviewed by the Environmental Protection Agency (EPA) before it is registered and allowed to be sold. The EPA evaluates hundreds of studies (and sometimes more) to assess potential risks to human health, effects of prolonged and repeated exposure, and impacts on nontarget species and the environment. Pesticide labels specify how, when and where products can be

used, and they serve as legal regulations that must be followed to ensure that, when used as directed, there is a reasonable certainty of no harm.

Also, keep in mind that when you see a crop being sprayed – whether by a person using a backpack sprayer, a machine in the field or an aerial applicator – most of that spray is water. Many of today's pesticides have very low use rates, which is the amount of active ingredient necessary to control a pest. Often, just a few ounces or grams of a pesticide are all that's needed to protect a whole acre of fruit or vegetable crops.

Some people may say: *Spraying pesticides is bad for the environment.*

Key facts: Today's pesticides are designed to minimize the impact on the environment. Products are made to be effective at lower use rates, to break down rapidly and to be highly targeted, so they work only on specific pests or at a specific time in a pest's life cycle.

Pollinator safety is a special area of focus in the development of pesticides today. Regulations require thorough testing for potential effects on pollinators, and label directions may include application instructions that further reduce the chances of pollinators coming into contact with pesticides.

Pesticide use can also help farmers leverage other management practices, such as reduced tillage or cover crops, that have a host of environmental benefits. Tillage disrupts soil ecosystems and can lead to soil erosion, but it has often been a part of weed management. Effective herbicides can reduce or replace tillage in many crop systems. This improves how soils hold water, promotes biological activity and supports regenerative agriculture practices that help keep soils healthier.



Some people may say: *Organic farmers don't use pesticides.*

Key facts: All farmers take steps to protect their crops from pests. This has been true since farming began. Organic farmers often use pesticides that are approved based on certain organic production criteria. Qalcova™ active, for example, is a naturally derived insecticide approved for use in organic production around the world.² It helps farmers control pests in crops such as cherries and apples that might otherwise be decimated by insect damage.

Some people may say: *Farmers don't really need to use pesticides. I don't care if my fruit has a few blemishes.*

Key facts: Protecting crops is about a lot more than growing perfect-looking produce. Pests can affect crop yield, flavor, nutritional content and, in the case of certain fungi, food safety. Pesticides allow farmers to grow more crops using fewer resources. If yields are reduced, consumers are faced with higher prices and fewer choices. The food chain

and consumers have high standards for their food – as they should! We all want food that is tasty, nutritious, affordable and, yes, beautiful. Pesticides help fruit and vegetable farmers meet those high standards and be good stewards of the environment.

For too many people, the term pesticide may evoke a sense of worry. To a farmer, a pesticide is simply one of the many tools needed to grow abundant, high-quality food. Next time you're faced with a myth about pesticide use in fruits and vegetables, be open to listening to the concerns, and try starting the discussion with facts like these to help overcome fears.

¹ Safe Fruits and Veggies calculator <https://www.safefruitsandveggies.com/calculate/>.

² Qalcova™ active <https://www.corteva.com/products-and-services/qalcovaandjemvelva.html>.