Consumer Reports Rates Produce For Pesticide Risks And Outlines Reforms Needed To Protect Consumers

Consumer Reports conducted a study that analyzed five years of data from the USDA's Pesticide Data Program (PDP), which tests fruits and vegetables for pesticides. Using the results of this study, Consumer Reports experts developed ratings for 35 fruits and vegetables to help consumers identify which produce items pose the biggest risk from pesticides. Products evaluated include organic and non-organic, grown in the U.S., and imported. Some frozen, canned, and dried items also were rated for a total of 49 products.

Findings

- As would be expected, the vast majority of organic produce items were rated very good or excellent. When possible, buying organic is the best option to reduce pesticide exposure and protect the environment and farmworkers.

- However, there are good nonorganic options too, as over half of the nonorganic fruits and vegetables pose little risk and were rated good, very good, or excellent.

- Approximately 20 percent of nonorganic products, such as fresh green beans, peaches, and potatoes, received the worst scores.

- Some organic products had worrisome pesticide residue and were rated fair or poor, including: domestic fresh spinach, imported fresh peas, and imported frozen cherries.

- Six pesticides contribute the most risk, including:

  1) **Acephate**. This pesticide can break down into a chemical called methamidophos, a compound banned as a pesticide in the U.S. since 2009 because it's a neurotoxin, meaning it damages the brain and nervous system.
  2) **Chlorpropham**. Used to keep potatoes from sprouting, this pesticide is banned in the EU because it may interfere with hormones in the body. It was found in concerning amounts on nearly every sample of nonorganic U.S.-grown potatoes and 96 percent of imported ones. It also was found in all domestic organic potatoes, although at much lower levels.
  3) **Chlorpyrifos**. This neurotoxin was on the brink of being banned in 2016, but the EPA reversed course after intense lobbying from the pesticide industry. It contributes significantly to the risk in nonorganic peaches.
  4) **Cyhalothrin**. Thought to interfere with the body's neuromuscular system, it is the major contributor to the risk in cherries, and was found in more than half of nonorganic U.S.-grown samples, fresh and frozen.
  5) **Famoxadone**. Some research suggests that this pesticide is a hormone disruptor. CR believes it should not be used on food until more is known about its safety. It is the main reason both non-organic and U.S.-grown organic spinach fare poorly in our ratings.
  6) **Fludioxonil**. This is one of several risky fungicides that's used after harvest, and it's thought to have hormone-disrupting effects. It is primarily responsible for the high risk in nonorganic fresh peaches and nectarines.

Glyphosate and **Dicamba** were not part of our analysis because they are mostly used for growing grains and beans, not fruits and vegetables.

Recommended Action Items

- The agricultural use of the riskiest pesticides should be banned.
- The EPA needs to consistently apply FQPA safety factor requirements to all neurotoxins, suspected endocrine disruptors, and any pesticide for which there is uncertainty about its safety.
- Based on the USDA PDP data, the FDA should issue Import Alerts on produce items found to contain banned pesticides to ensure that such contaminated products are not sold in the country.
- This study highlights the need for the USDA to take steps to maintain the integrity of the organic program and help farmers transition to organic, thus making organic options more widely available.
- Congress should pass The Protect America's Children from Toxic Pesticides Act (PACTPA), legislation that would prevent the use of toxic pesticides that harm children, farmworkers and consumers. This bill would represent the first comprehensive update to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the law governing pesticide use in the U.S.

How the Rating System was Developed

- Consumer Reports analyzed five years of data— from 2014 to 2018, the latest available—from the USDA's Pesticide Data Program, which tests fruits and vegetables for pesticides, about 24,000 samples in all.
- Then, we calculated a rating based on four factors: the number of pesticides detected on each item, the frequency with which pesticides were found on samples, the average amount of residue of each pesticide found on the items, and the toxicity of the pesticide.
- To account for toxicity, we used the EPA's chronic reference dose for each pesticide (the amount it considers not likely to cause harm over a lifetime), and then applied the Food Quality Protection Act (FQPA) safety factor to known neurological toxins or suspected endocrine disruptors—even when the EPA does not. The goal was to minimize the chance that risks are underestimated.
- This means that fruits and vegetables with residue of many different pesticides can still receive a rating of Very Good or even Excellent if the amounts are low compared with the level we consider harmful, or if the pesticides have a low toxicity. But others rate poorly if they have even a very small amount of a more dangerous pesticide.