Council of Producers & Distributors of Agrotechnology

Pesticide Safety, Food Security & Public Health:

Protecting Families, Farmers & Communities Through Science-Based Regulation

2026 CPDA POLICY BACKGROUND PAPER

THE ISSUE

Americans share common goals: safe and affordable food, healthy families, and healthy communities. These goals are supported by the judicious, science-based use of regulated pesticides within one of the most scientifically rigorous and transparent regulatory systems in the world.

The United States uses a risk-based regulatory framework that ensures pesticides are evaluated for both health and environmental safety while also considering the real-world benefits pesticides provide to food production, public health, and infrastructure protection. This system protects children, vulnerable populations, and the environment while helping ensure farmers can produce reliable and affordable food.

Pesticides play an essential role in U.S. food security and public health protection. Without effective pest management tools, crop losses, food prices, and supply instability increase. Global examples demonstrate that eliminating access to modern crop protection tools can reduce yields, destabilize agricultural economies, and increase food insecurity.

Maintaining strong, science-based pesticide regulation ensures farmers, public health professionals, and communities maintain access to safe and effective tools needed to protect crops, people, and infrastructure.

WHY PESTICIDES ARE NEEDED

Farmers face numerous weeds, insects, fungal diseases, and other pests that can destroy crops if left unmanaged. Some invasive weeds have been documented to reduce crop yields dramatically if not controlled. Many farmers rely on pesticides to maintain soil health conservation practices such as no-till and reduced tillage, which help reduce erosion and improve soil health.

Pesticides also play critical roles beyond agriculture. They protect communities from disease-carrying mosquitoes and rodents, protect infrastructure from termites and invasive species, and support infection control in healthcare settings through antimicrobial pesticide products. Land managers also use pesticides to control invasive vegetation that can increase wildfire risk.

Collectively, pesticides help support a more abundant, affordable, and sustainable supply of food and agricultural products while protecting public health.

THE U.S. PESTICIDE REGULATORY SYSTEM

Pesticides in the United States are regulated by a coordinated system involving EPA, USDA, FDA, and state regulatory agencies. EPA serves as the primary regulatory authority under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Under FIFRA, EPA must ensure that pesticide uses do not pose unreasonable risk to human health or the environment. EPA conducts extensive risk assessments evaluating ecological impacts, human health risks, occupational exposure, drinking water exposure, and other potential impacts. These evaluations are conducted before registration and are repeated periodically through registration review.

The Food Quality Protection Act (FQPA) provides additional safeguards for children's health by requiring additional safety factors and conservative residue limits. Maximum residue limits are typically set far below levels shown to cause harm, often incorporating safety factors of 10 times, 100 times, or more.

USDA and FDA routinely test food to ensure pesticide residues comply with EPA-established limits. Monitoring consistently shows more than 99 percent of tested foods meet EPA's conservative residue safety standards year after year.

RISK-BASED REGULATION PROTECTS PEOPLE AND THE ENVIRONMENT

The United States uses a risk-based regulatory approach that evaluates both the potential hazard of a substance and the likelihood of real-world exposure. This approach allows regulators to mitigate risks while preserving access to tools that provide important societal benefits.

Risk-based regulation differs from hazard-only systems used in some parts of the world, which prohibit products based on hazard alone without considering exposure, use conditions, or risk mitigation. Risk-based systems allow regulators to tailor protections while maintaining access to important pest management tools.

PESTICIDE SAFETY FACTS

Food Safety Monitoring: USDA testing consistently shows more than 99 percent of tested foods meet EPA's highly conservative pesticide residue safety standards, and this result has remained consistent year after year.

Built-In Safety Factors: Federal law under the Food Quality Protection Act requires additional safety protections, including default tenfold safety factors to protect children and sensitive populations. Combined safety factors often result in allowable residue levels set 100 times or more below levels shown to cause harm.

Natural vs Synthetic Exposure: Scientific research shows that approximately 99.99 percent of dietary pesticide exposure comes from naturally occurring compounds plants produce to defend themselves from pests. Like synthetic pesticides, these compounds are safe at the very low levels typically found in food.

Organic Does Not Mean Pesticide-Free: Organic agriculture allows certain naturally derived pesticides. Like synthetic pesticides, these products must be used according to label directions to avoid risks to human health and the environment.

Real-World Food Security Lessons: In 2021, Sri Lanka prohibited synthetic pesticides and fertilizers, resulting in major crop yield losses, food shortages, and significant economic disruption, ultimately forcing the country to reverse course within months.

CPDA POLICY PERSPECTIVE

CPDA supports science-based, risk-benefit pesticide regulation that protects human health and the environment while ensuring farmers and public health professionals maintain access to safe and effective pest management tools.

CPDA supports policies that maintain the integrity of EPA's science-based regulatory authority and ensure regulatory decisions remain grounded in risk assessment, exposure science, and real-world use data.

CPDA supports adequate funding for EPA's Office of Pesticide Programs to ensure timely, science-based regulatory reviews and continued protection of public health and the environment.

CPDA supports policies that maintain farmer access to innovative and well-regulated pesticides that support food security, environmental stewardship, and public health protection.

CONCLUSION

The U.S. pesticide regulatory system is one of the most protective and scientifically advanced regulatory systems in the world. Maintaining this system ensures pesticides are safe, effective, and used responsibly.

Science-based pesticide regulation protects families, supports farmers, safeguards public health, and helps ensure Americans continue to have access to safe, affordable, and abundant food.

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