

**KEY POINTS FROM THE U.S. INTERNATIONAL TRADE
COMMISSION'S REPORT ON THE GLOBAL ECONOMIC
IMPACT OF MISSING AND LOW PESTICIDE MAXIMUM
RESIDUE LEVELS (MRLS), VOLUME 1**





Plant protection products can protect **crops from pests** and improve **farmer livelihoods** by decreasing crop losses and increasing the economic sustainability of farming activities. Emerging pest threats underscore the importance of ensuring that farmers have access to the tools and technologies they need to **produce safe and affordable food** to feed a **growing global population**. One such pest, the fall armyworm, could leave more than 300 million people without access to sufficient food and result in global corn production losses of more than \$4.8 billion USD.

Governments establish maximum residue levels (MRLs) to ensure that residues from plant protection products, such as pesticides and fungicides, are not harmful to consumers if they are found on food. The process for establishing MRLs also considers Good Agricultural Practices in the application of plant protection products, which helps maintain the efficacy of crop protection products for farmers and promote their responsible use.

The Codex Committee on Pesticide Residues (CCPR) and the Joint Meeting on Pesticide Residues establish internationally agreed upon MRLs through a robust, independent science-based process.

The Codex process prioritizes human health and utilizes rigorous, independent methodologies to assess toxicological and residue data in setting MRLs. However, some countries establish MRLs that are considerably lower than Codex MRLs or do not recognize Codex MRLs when an MRL is not established in their own country. This presents a significant challenge for producers and exporters, and these challenges may be exacerbated for producers of minor crops.

Based on its recognition that missing and low pesticide maximum residue levels pose an increasingly significant impediment to global trade, the Office of the United States Trade Representative (USTR) requested that the U.S. International Trade Commission (USITC) conduct an independent, non-partisan assessment evaluating the global economic impact of this issue. Volume One of the report includes an overview of MRLs and challenges in global agriculture, MRL policy approaches, MRL practices in major U.S. export markets, challenges associated with MRLs, producer case studies on the economic effects of missing and low MRLs, and an economic literature review on the effects of MRL policies. Volume Two of the report, which will focus on the costs and effects of MRL policies on U.S. producers, as well as on the global impact of MRLs, is expected to be released in February 2021.

TAKEAWAYS FROM THE USITC REPORT ON THE IMPORTANCE OF TOOLS AND TECHNOLOGIES TO FEED A GROWING POPULATION AND SAFEGUARD PLANT HEALTH

ADDRESSING CLIMATE AND PEST CHALLENGES



Increasingly variable climate can lead to **new and increased pest pressures** around the world, and farmers must address these new threats to production. Farmers who are unable to access or use the tools they need to address these challenges may be forced to adopt older, less efficient and less environmentally friendly production practices. **Tropical regions with greater food insecurity and heavy pest pressures** are particularly affected by these challenges.



FACILITATE INTEGRATED PEST MANAGEMENT STRATEGIES

The responsible use of pesticides, fungicides, and herbicides is an essential component of integrated pest management strategies in agriculture, and also complements the use of other conservation-focused practices like no-till agriculture.



REDUCING FOOD WASTE/LOSS

The safe use of plant protection products can lead to **lower production losses, reduced food waste, reduced post-harvest loss**. Post-harvest fungicides enable horticultural and specialty crops to have a **longer shelf-life** which **improves international trade opportunities**.

CASE STUDIES



- Agricultural products are Kenya's largest export.
- Approximately 75 percent of Kenyans derive a portion of their income from agriculture.
- Only 20 percent of Kenya's land is suitable for farming due to complex terrain and weather conditions conducive to pests.

Recent regulatory changes in Kenya's main export market severely limited the number of pesticides available to Kenyan French bean farmers, despite the presence of internationally agreed upon MRLs for some of these products. These pesticides are essential to control endemic pests.



In Kenya, farmer output and profits fell in response to regulatory changes in their export markets. Average annual prices of French beans have declined, even though farmers complied with other quality, environmental, social, health, and safety standards.

PERU



- Mangoes are an important specialty export crop for many developing countries.
- Mangoes are highly perishable and vulnerable to a variety of fungal and insect pest threats.
- In recent years, important export markets phased out fungicide MRLs, mostly due to changing data requirements and new product approvals, rather than food safety concerns.
- Missing and low MRL farmers now lack access to post-harvest fungicides that are compatible with sustainable, integrated pest management systems.



In Peru, some growers report that they must choose to either segregate their crops by export market or produce their entire crop to suit the importing market with the lowest MRL, resulting in substantial crop losses and reduced exports. Segregating crops by market adds complications because shipments sent to the wrong destination may be rejected, affecting the supplier's reputation among importers and retailers.

CONCLUSION

National authorities are responsible for protecting their consumers from food borne illnesses, including those associated with plant protection product residues. Codex Alimentarius helps countries meet this important responsibility by developing robust, independent, internationally agreed upon MRLs. In addition to protecting public health, Codex standards facilitate international trade by helping countries harmonize import requirements across markets. Where Codex MRLs are not available, countries can choose to establish their own MRLs or recognize science-based and justified MRLs or pesticide tolerances developed by another country in order to protect consumer safety and ensure access to the wide variety of products consumers demand and expect.

The USITC report illustrates that farmers suffer direct negative economic consequences from missing and low MRLs. The impacts from missing or low MRLs can vary by country and may be particularly problematic for farmers exporting minor or specialty crops, which have fewer existing MRLs. Producers in tropical countries, who face greater pest pressure, may also be particularly affected by these factors. In lower-income countries, producers typically have fewer resources available for addressing these challenges.

This summary is provided by staff from the U.S. Department of Agriculture's Foreign Agricultural Service but is not an official USDA publication.