Pesticide Regulation in the United States

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Pesticides are just one tool… but a very important one!

U.S. crop producers use a variety of practices to reduce yield losses to pests crop choices; planting date adjustments; crop rotations; mechanical methods; biocontrol; and they may also apply chemical pesticides

According to USDA ERS, pesticide use in the United States declined nearly 20% from 1981 to 2008 due to more efficient active ingredients, Integrated Pest Management, and other advances.

Review of the EU Rapid Alert System for Food and Feed shows zero alerts for pesticide residues in US origin rice.

Sustainability and USA RICE

Strict regulations through the entire supply chain.

Federal Pesticide Laws

- **Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)**
- **Federal Food, Drug and Cosmetic Act (FFDCA)**
- **Food Quality Protection Act, of 1996 (FQPA)**
- **Pesticide Registration Improvement Act of 2003 (PRIA)**
- **Endangered Species Act (ESA)**

EPA

Before manufacturers can sell pesticides in the United States, EPA must evaluate them thoroughly to ensure that they meet federal safety standards to protect human health and the environment.

Registration

EPA grants A “registration” or license that permits a pesticide’s distribution, sale, and use only after the company meets the scientific and regulatory requirements.

The registration process can take upwards of 6 to 9 years

A joint CropLife America (CLA) and European Crop Protection Association (ECPA) report released in 2010 shows that the cost of developing and registering new pesticide products was on average $256 million for 2005-2008.

The Evaluation Process

- EPA evaluates human health risks (including sensitive groups such as children and immune-suppressed individuals), by reviewing data on:
  - Aggregate risks–through food, water, and residential uses
  - Cumulative risks–from different pesticides with the same effects
  - Occupational risks to those applying the product during their work

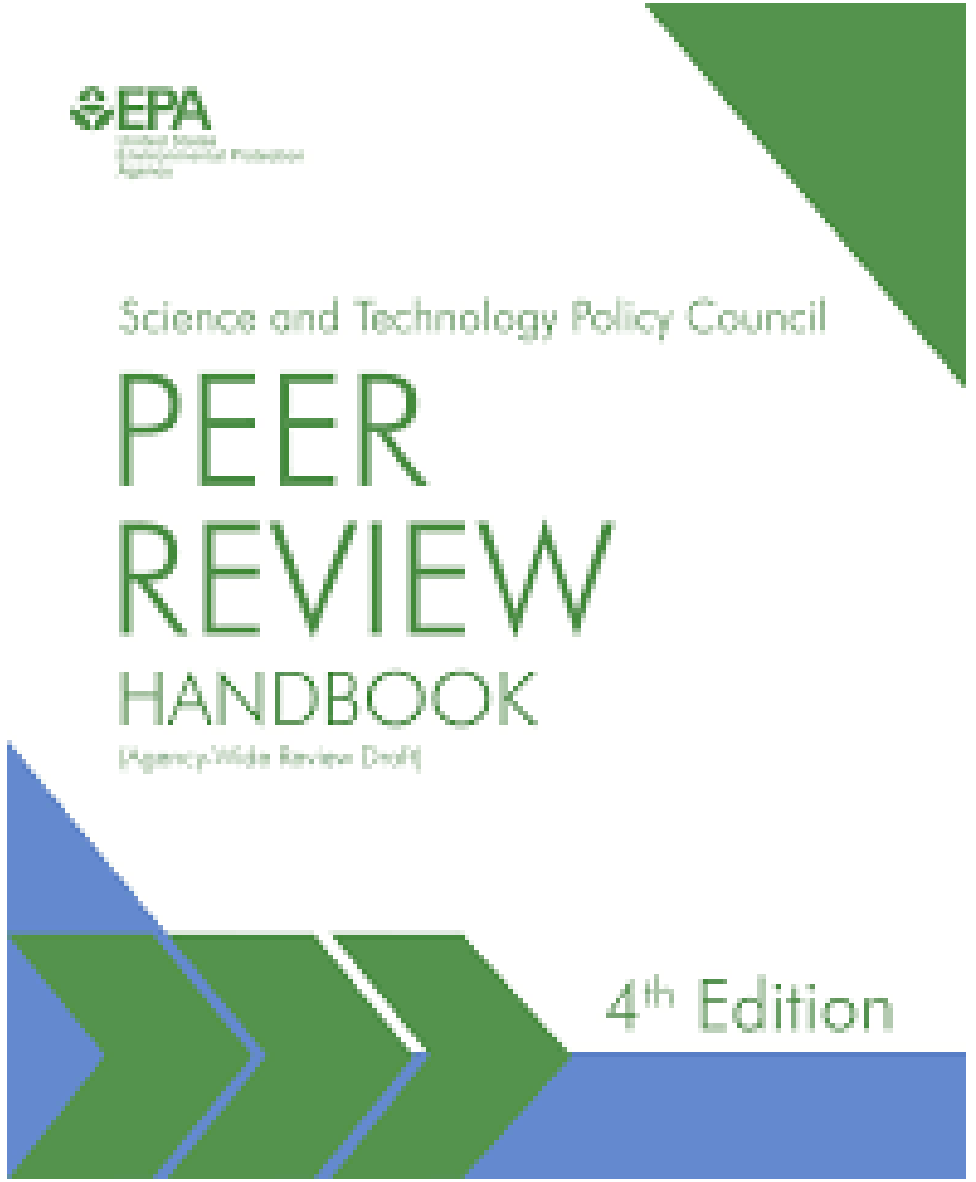
- EPA evaluates environmental risks by reviewing data on:
  - Potential for ground water contamination
  - Risks to endangered and threatened species
  - Potential for endocrine-disruption effects

Risk Assessment

- The process EPA uses for evaluating the potential for health and ecological effects of a pesticide is called risk assessment.

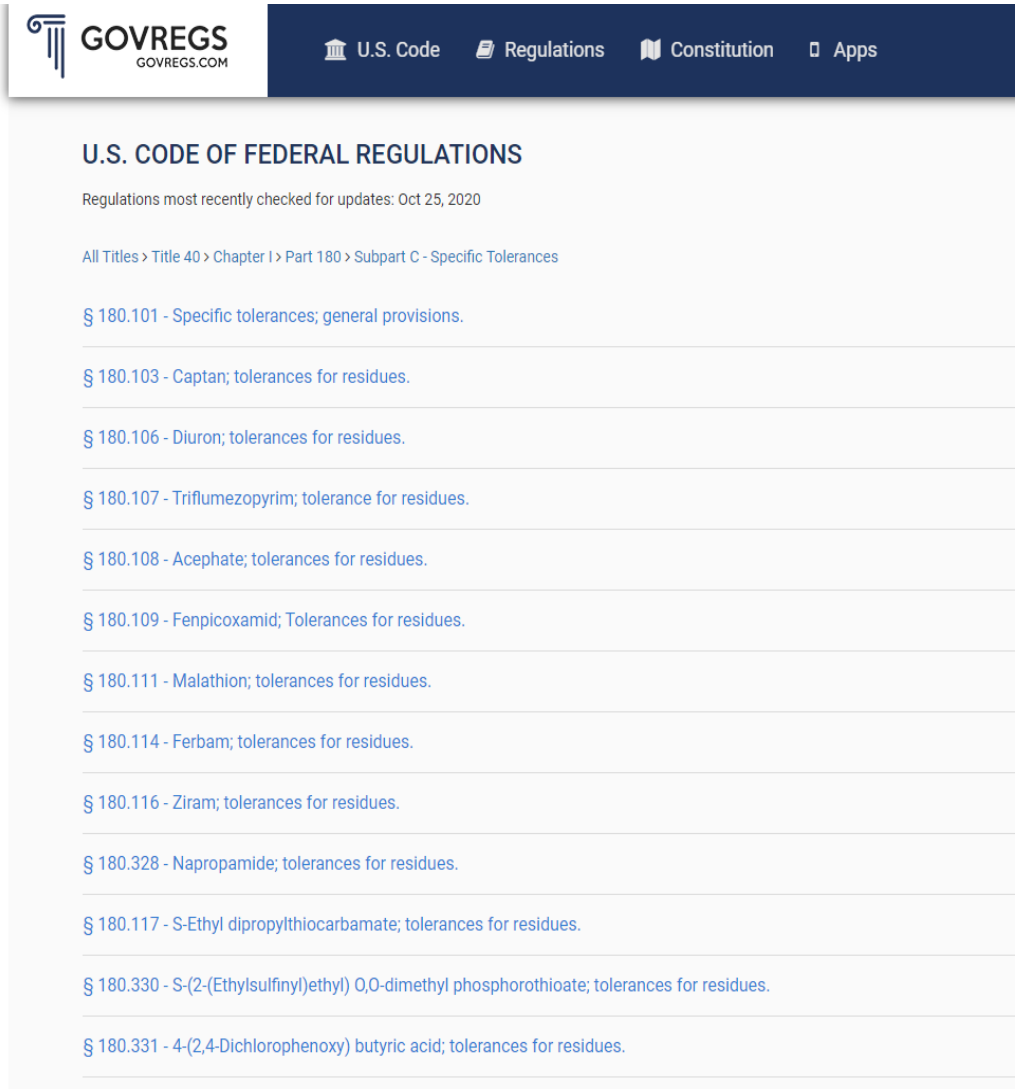
Peer Review

- The health and environmental risk assessments undergo a process of peer review by scientific experts.



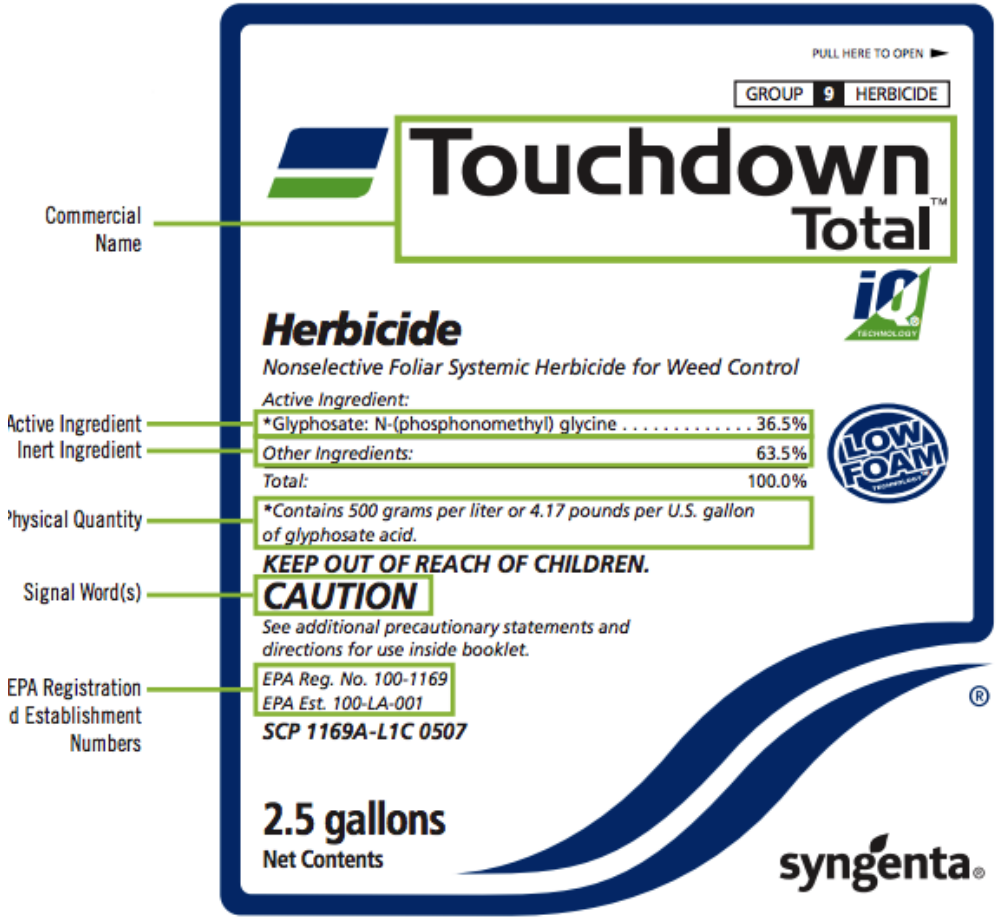
Tolerances

- **By law, EPA is responsible for regulating the pesticides that are used by growers to protect crops grown for human food and animal feed and for setting limits on the amount of pesticides that may remain in or on foods marketed in the USA.**
- **These limits on pesticides left on foods are called "tolerances" in the United States (they are referred to as maximum residue limits, or MRLs, in many other countries).**



The Pesticide Label

- EPA reviews pesticide product labels as part of the licensing/registration process and must approve all label language before a pesticide can be sold or distributed in the United States.
- Overall intent of label
  - Provide clear directions for effective product performance while minimizing risks to human health and the environment



International Issues

Global Economic Impact of Missing and Low Pesticide MRLs

Key Findings

- **MRLs are a type of nontariff barrier (NTB) affecting agricultural goods, and have the potential to influence trade as well as prices, production, and income in exporting countries.**

Different Regulatory Systems in Different Countries

EU basic food law (EC) 178/2002

People's Republic of China Food Safety Law, 2015

Gulf Cooperation Council Guide for Control of Imported Foods

Australia/NZ Food Standards Code

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Codex Alimentarius

Summary

Judicious use of pesticides offers tremendous benefits to both growers and consumers

US rice exporters work hard to ensure we meet U.S., Codex, and destination country standards.

Differences between countries regarding pesticide residue standards create challenges

Reliance on science-based risk assessment can aid in international harmonization of food safety standards

QUESTIONS?