A Quick Overview of the Regulation of Pesticides in South Carolina

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Pesticides are Dangerous Tools, 1.

• Not “safe,” but “when used according to the label or labeling, does not pose a risk that most people would find unacceptable for the benefit provided.”
• The label is an instruction manual with the force of law. (Labeling is advertising, labels, and everything else.)
• EPA is routinely accused of ignoring the “benefits” side of the equation.

Pesticides are Dangerous Tools, 2.

• Toxicity.
  – Chronic.
  – Acute.
• Persistence.
• Accumulation.
• Environmental effects.
• Misuse.
• Accidents.
• Mobility.
  – Drift.
  – Leaching.
  – Translocation.
Pesticide Regulation

• Federal.
  – EPA.
  – Primarily registration.
  – Interstate commerce.
• State “lead agencies.”
  – Departments of Agriculture.
  – Land-grant Universities.
  – A few have no SLA and allow EPA to regulate use in the state.

Pesticides are Regulated at Two Levels

• Federal.
  – EPA is the federal agency responsible for regulating pesticide use.
  – FIFRA:
    • Federal Insecticide, Fungicide, and Rodenticide Act.
      – First enacted in 1947, enforced by USDA.
      – Major revision in 1972, creating the EPA.
      – Food Quality Protection Act of 1986 introduced the “risk cap” concept, dramatically changing how risk is calculated.
    • FIFRA requires registration of pesticides.
  – Other statutes: WPS, container/containerment, endangered species, groundwater protection, IPM in schools...
• State

Federal Programs, 1.

• Worker Protection Standards (EPA mandated).
• Protects 3.5 million workers on farms, greenhouses, nurseries, and forests from pesticide exposure risks.
• Employers must:
  – (There are exemptions for size and "family farms).
  – Notify workers of applications, display application records, and provide training.
  – Provide decontamination sites, emergency assistance and transport, and personal protective equipment (PPE).
Federal Programs, 2.

• Groundwater Protection.
  – Monitors:
    - Pesticides of Interest.
    - Pesticides of Concern.
    - Nitrates.
  – DPR samples wells across SC.
  – Analyzes samples for pesticides and nitrates.
  – No enforcement component to this program – educational and advisory only.

• Chemigation Act.
  – Requires specific safety equipment on water supplies used for chemigation.
  – Wells and other water supplies.

Federal Programs, 3.

• IPM in Schools.
  – Aims to reduce the risks of pesticide exposure to children.
  – Encourages IPM practices in schools.
  – Inspections and education.
  – No enforcement component.

• Pesticide Container Recycling.
  – Encourages container recycling to reduce pesticide residues in the waste stream.
  – 1.8M pounds recycled over the last 15 years.
  – Coordinated with the Cooperative Extension Service.

Federal Programs, 4.

• Endangered Species Act.
  – Requires EPA to ensure that use of registered pesticides does not harm endangered plants or animals or their habitat.
  – EPA is supposed to produce county-level maps and endangered species protection bulletins to be distributed on-line or at the point of sale in affected areas.
  – Bulletins will be “labeling,” i.e. enforceable.
  – Has been “just around the corner” since the day I started with DPR…
Pesticides are Regulated at Two Levels

- Federal.
- State.
  - Most states have a “State Lead Agency.”
  - Supported by EPA grant money.
  - States have “primary use enforcement authority.”
  - States also register pesticides.
  - State law can be more stringent than Federal, but not less.

Pesticide Regulation in SC

- 1890 fertilizer purity and quality laws were originally enforced by Clemson University.
  - Supported by a 25¢ per ton fertilizer tax.
  - 120 years later we managed to raise the tax to $1.50.
  - Pesticides were added to that responsibility, since they were also agricultural chemicals.
  - Established Clemson as the SLA.
  - Most recent revision was 2005; current revisions are under review by the SC Legislature.


- Restricted Use Pesticides.
  - States must honor the federal list.
  - There are also state RUPs.
- Record keeping.
- Licensing.
  - Standards established.
  - Activities requiring licensing.
- Registration (13,000 products in SC).
  - States do not necessarily have to accept federal registrations, e.g. 1080.
  - States may require registration of products the feds do not, e.g. 25(b) products.
Pesticide Applicator Licensing

• Private applicators (7200).
  – Use RUPs.
  – Agriculture only.
• Commercial applicators (3900).
  – RUP and “unclassified.”
  – 12 License Categories.
    • Mandatory licensing in 5 categories.
    • Mandatory “business license” for structural pest control.
• Non-Commercial (1200).
  – License for government employees.
• Dealers.
  • Process: exams (30% fail rate), application, fees, insurance, continuing education.

What We Do:
“Regulation through Education”

• Generate voluntary compliance through educational efforts backed by enforcement.
• Certification, licensing, and re-certification.
• Enforcement.
  – Reasonable and commensurate with the offense.
  – Transparent and consistent.
  – Scientifically valid.

How We Regulate.

• Twelve investigators.
  • Routine inspections and complaints (3215 in 2010).
  • Some are commissioned.
• Two compliance inspectors.
• Support staff.
  • Management.
  • Lab.
  • Admin.
How We Regulate.
Forensics.

• Proper investigative protocol and procedures.
  – Sampling.
  – Interviews.
  – Evidence collection.

• Analysis.
  – Our analytical lab is in-house.
  – Lab functions:
    • Pesticide residue analysis.
      – Routine applications (compliance).
    • Quality-control and guarantee analysis.
  – Analyses and findings must be able to hold up in court.

Enforcement, 1.

• Enforcement is based on the severity of the offense.
• Follows a written “enforcement matrix.” Provides guidance, but not a mandate.
• Development included industry input.
  – Matrix.
  – Database.
  – Review committee.
• Progressive.
• Rewards improvement efforts.

Enforcement, 2.
Civil vs Criminal

• Civil
  – Responses are based on regulations and policy.
  – Warnings, fines, restitution, license modification or revocation.
  – Most cases are handled administratively, by consent agreements.
  – Some go to administrative hearings.
• Criminal
  – Responses are based on statutes and regulations.
  – Always involves a court hearing.
  – Penalties include fines, community service, jail time.
Why We Regulate Pesticide Use.

• To minimize risk.
  – Ensuring that applicators meet a minimum competency standard.
  – Ensuring that products meet minimum requirements for purity, quality, and safety.
• To protect health and the environment.
• To protect consumers.

“There is no man so useless that he cannot serve as a bad example.”
  – Samuel Clemens, American author, 1835-1910

Why Regulate Pesticide Use?
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The End.
Any Questions?