PESTICIDE USE IN MASSACHUSETTS

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November 30, 2021

AUTHORITY, RULES, REGULATIONS

- **Federal Insecticide Fungicide Rodenticide Act ("FIFRA")**
  - Federal Food Drug, Cosmetic Act ("FFDCA)
  - Endangered Species Act ("ESA")
- **Massachusetts Pesticide Control Act**
- **333 CMR State Regulations**

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DEFINITION OF A PESTICIDE

333CMR Section 2.03

"a substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest, and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant"

Anything that claims to kill something…

Insecticides, Fungicides, Herbicides, Rodenticides, Antimicrobials

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FEDERAL PROCESS

APPLICATION

- The identity and quantity of all chemicals in the product.
- Data on potential risks to human health and the environment, including about the potential for pesticide residues on food (if applicable).
- Proof that the product manufacturing process is reliable.
- Labeling, including directions for use, contents, and appropriate warnings.
- Evidence of meeting all legal and financial obligations.

FEDERAL PROCESS ASSESMENT

- **Human Health (including sensitive groups such as children and immune-suppressed individuals)**
  - Toxicity studies: full spectrum of potential health effects; from eye and skin irritation to cancer and birth defects
  - 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
  - A safety factor of at least 100x but to at least 1000x is used (per the Food Quality Protection Act)

- **Environmental Risks**
  - Wildlife and Plant Toxicity
  - Environmental Fate and Exposure (Soil, Water, Air)
  - Ecological Risks:
    - Aquatic: fish, invertebrates, plants
    - Terrestrial: mammals, birds, insects (incl. honeybees), plants
  - Endangered and threatened species
  - Potential for endocrine-disruption effects

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FEDERAL PROCESS ASSESSMENT

- **Implement Risk Assessment and Peer Review**
  - Review all the scientific data on the pesticide product and develop risk assessments that look at potential effects of the product or ingredient on the human health and the environment.
  - The human health and environmental risk assessment evaluation process undergoes peer review by scientific experts.
  - Opportunities for the public to comment on registration actions

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FEDERAL PROCESS

- **Based on the review process, EPA will decide the following:**
  - Register the product
  - Classification of the product (General Use or Restricted Use)
  - Final label language

- **EPA conducts registration reviews on active ingredients at least every 15 years. If a new use pattern is requested than EPA conducts risk assessments as needed.**

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FEDERAL PROCESS, LABELING REQUIREMENTS

1. **Restricted Use Statement (if necessary)**
2. **Product name**
3. **Ingredient Statement (active ingredient and %)**
4. **Signal Word (refers to the toxicity of the product)**
5. **First aid**
6. **EPA Registration Number and Establishment Number**
7. **Hazards and Precautionary Statements**
8. **Hazards to Humans and Domestic Animals**
9. **Environmental Hazards**
10. **Worker Protection (if necessary)**
11. **Directions for Use**
12. **Storage and Disposal**
13. **Statement: *"IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING"***

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LABELING

- **It is important to note that the label reflects the data and potential risks that were presented during the registration process. The label mitigates potential risks associated with the use of the product.**

  - *"Apply when wind speed is less than 10mph or drift may cause damage or death to nontarget area vegetation. DO NOT apply when conditions favor drift from target area."*

  - *"This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area."*

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LABELING

- **Labels also have informative language and suggestions for the applicators to follow to reduce risk.**
  - *"This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of [insert active ingredient] from runoff water and sediment."*
  - *"Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours."*

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STATE PROCESS

- **PESTICIDE SUBCOMMITTEE**
  - Established by the Massachusetts Pesticide Control Act
  - Five members:
    - Massachusetts Department of Agricultural Resources
    - Massachusetts Department of Conservation and Recreation
    - Massachusetts Department of Public Health
    - Massachusetts Department of Public Health, Director of Division of Food and Drug
    - Commercial Applicator

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STATE PROCESS

- **The process can be split into two different processes:**

  1. "Routine" Registration: New product but containing an active ingredient that is present in products already registered in the state.

  2. New Active Ingredient: New product containing an active ingredient that is not present in any products registered in the state.

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Routine Registration

- **Applications are sent to MDAR**
- **An administrative review is conducted**
  - Fees, labels, forms, etc.
- **A technical review is conducted**
  - Review label
  - Determine if active ingredient is new in Massachusetts
  - Determine if active ingredient is on the groundwater protection list and if so, review the use pattern to assess if reclassification is needed
  - Determine if product needs reclassification due to previous decisions made by the Subcommittee
  - Look out for new use patterns for active ingredients and assess whether additional review is needed

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New Active Ingredient Registration

- **Obtain and review EPA registration documents, including human health and ecological risk assessments**
  - Screen for use patterns that are relevant to MA
  - Consider risks that are relevant to MA, if any.
  - Evaluate if additional restrictions may be needed in MA

- **Evaluation for Ground Water Protection**
  - Assess leaching and toxicological properties
  - Compare with regulatory criteria for potential ground water pollutant (333 CMR 12.00)
  - If meeting criteria, pesticide is re-classified and its use is restricted in primary recharge areas

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STATE PROCESS

- **Information is presented to the Subcommittee to determine if:**
  - Product should be registered
  - Product should be reclassified

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REQUIREMENTS WHEN USING A PESTICIDE

- **Definition of Use**
  - Application
  - Storage/Disposal
  - Transporting
  - Mixing/Loading

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REQUIREMENTS WHEN USING A PESTICIDE

- **Licensing**
  - A license is required to use a pesticide on property that is not your own.
  - Two “Tiers” of licenses
    - Commercial Applicators License
    - Commercial/Private Certification License

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REQUIREMENTS WHEN USING A PESTICIDE

- **STANDARDS OF APPLICATION**
  - Pre-notification
  - Sign posting
  - Protection of Groundwater
  - Rights of Way Restrictions
  - Consumer Information
  - Record Keeping
  - Information left after the application
  - Operating in a careful manner
  - Using appropriate methods

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MDAR PESTICIDE STAFF

- **Registration**
  - 2 Chemist
  - 1 Registration Specialist
- **Licensing**
  - 1 Program Coordinator
  - 2 Licensing Specialists
- **Enforcement**
  - 1 Chief
  - 4 Inspectors

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EPA GLYPHOSATE REVIEW

- **Interim decision was published in January 2020**
- **EPA continues to find that there are no risks of concern to human health when glyphosate is used in accordance with its current label.**
- **EPA found that glyphosate is unlikely to be a human carcinogen.**
- **Label changes to help mitigate risk to non-target pests, protect pollinators, and reduce the problem of weeds becoming resistant to**

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QUESTIONS?

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