4.1b Pesticide Use and Reading Labels

Knowledge Check (3 of 4)

This Knowledge Check covers presentation segments

Environmental Concerns, Laws and Regulations

1. Name two considerations for protecting the environment from pesticides.

Two considerations include where the pesticide goes once it's applied and what effect the pesticide can have in the environment. (presentation, slide 64)

2. Name three possible effects of pesticides in the environment.

Three possible effects of pesticides in the environment are

- plant injury (phytoxicity)
- harm to pollinators and other beneficial insects
- harm to animals (presentation, slide 65)

3. Name three pesticide characteristics that affects how a pesticide moves in the environment and define them.

Responses can be from the following:

- solubility (the ability of a pesticide to dissolve in water)
- adsorption (binding of a pesticide to soil particles)
- persistence (how long a pesticide remains present and active in its original form before breaking down)
- degradation (the breakdown of a pesticide into simpler, often less toxic, compounds)
- and volatility (the tendency of a pesticide to turn into a gas or vapor). (presentation, slide 66)

4. What are three ways pesticides can be transported in the environment?

Pesticides can be transported in the environment by air, water, or by objects/organisms. (presentation, slide 67)

5. What are examples of sensitive areas that might be affected by pesticides?

Examples of outdoor sensitive areas that can be affected by pesticides include surface water, areas where pets or livestock may be kept, and apiaries. Indoor sensitive areas might include areas where people live, work or are cared for; where food's prepared or stored; or areas where pest may be living. (presentation, slide 68)

6. How can surface water can become contaminated with pesticides?

Surface water can become contaminated with pesticides by runoff carrying pesticides to ditches, ponds, lakes, streams, and rivers. (presentation, slide 70)

7. What factors affect runoff?

The factors affecting runoff include: ground slope, vegetative cover, soil characteristics, temperature, and rainfall/irrigation. (presentation, slide 70)

8. How can groundwater become contaminated by pesticides?

Groundwater can become contaminated by pesticides leaching through the soil. (presentation, slide 70)

9. What are the pesticide characteristics that affect pesticides leaching to groundwater?

The pesticide factors that affect pesticide leaching include the product's solubility in water; the pesticide's persistence in the on or in the soil; and how well the pesticide adsorbs to soil particles. (presentation, slide 72)

10. What are the site characteristics that affect pesticides leaching to groundwater?

Site characteristics that affect pesticide leaching include: soil texture, soil structure, organic matter, depth to groundwater, and geology. (presentation, slide 73)

11. What are ways to prevent water contamination with pesticides?

Ways to prevent water contamination with pesticides are to read the label for specific water protection measures and to use best management practices to avoid contamination. These best practices include:

- using integrated pest management
- identifying vulnerable areas and avoiding them
- mixing/filling away from wells or other surface water
- avoid back-siphoning
- avoiding overflow when filling a sprayer
- watching the weather and avoiding applications when rainfall is forecast
- selecting pesticides that are less likely to leach/runoff
- and handling pesticides safely by mixing and filling application equipment away from water sources
- following the label for proper cleanup and disposal
- sweeping granular products from sidewalks/driveways or other areas back on to the treatment area
- cleaning sprayers at the application site away from water sources (slide 74)

12. What is the Federal Fungicide, Insecticide, and Rodenticide Act and who enforces it?

The Federal Fungicide, Insecticide, and Rodenticide Act (or FIFRA) is the federal law that governs pesticide registration, pesticide applicator training and certification, and other issues related to pesticide use in the United States. The Environmental Protection Agency (or EPA) is responsible for administering and enforcing FIFRA. Through cooperative agreements, states also enforce the provisions of FIFRA. (presentation, slide 76)

13. What is a minimum-risk pesticide?
A minimum-risk pesticide is a pesticide that the EPA has determined poses little or no risk to humans and the environment as long as they meet certain conditions specified by the EPA. (presentation, slide 76)

14. Do minimum-risk pesticides require registration?
No. Minimum-risk pesticides do not require registration by the EPA or the New York State Department of Environmental Conservation. (Note: New York State requirements could change.) (presentation, slides 77 and 79)

15. Do minimum-risk pesticide have to be used according to their label?
Yes. Minimum-risk pesticides are still pesticides and must be used according to their label. (presentation, slide 77)

16. Name the New York State law that governs distribution, sale, use, and transportation of pesticides in New York State.
The Environmental Conservation Law governs distribution, sale, use, and transportation in New York State. (presentation, slide 79)

17. What state agency is responsible for enforcing pesticide laws and regulations in New York State?
The New York State Department of Environmental Conservation (NYSDEC) is responsible for enforcing pesticide laws and regulations in New York State. (presentation, slide 79)

18. What are some examples of how the NYSDEC can be more restrictive with pesticides compared to the EPA?
Some examples of how the NYSDEC can be more restrictive with pesticides compared to the EPA include:

- requiring pesticides with certain label statements, surface water uses, or certain active ingredients to be restricted-use
- require pesticides having groundwater, human health concerns, or environmental concerns to be restricted-use
- prohibiting use of a particular pesticide in certain locations in NY (such as no Long Island use). (presentation, slide 79)

19. Where do you go to find what pesticides are currently registered in New York State?

The online New York State Pesticide Administration Database (NYSPAD) from the NYSDEC is used to find what pesticides are currently registered in New York State. (presentation, slide 79)

20. List 5 unique New York State pesticide requirements.

Five unique New York State pesticide requirements can include:

- state law requiring pesticide users to use a pesticide according to its label directions (including using a pesticide on a listed site and against a listed pest in the proper combination and only within the rates specified on the label)
- backflow prevention is required when filling a sprayer
- aquatic pesticides used in surface water are automatically restricted-use requiring the applicator to be certified; aquatic pesticide applications for homeowners are limited to containerized water like bird baths; most aquatic pesticide applications require a permit from New York State
- a pest control company must supply a copy of the label for each pesticide they will be applying within the dwelling to occupants of a one- or two-family dwelling, the occupant of a multiple-dwelling unit, or the owner/owner's agent; lawn pesticide applications require a contract between the company applying the pesticide and the property owner
- the lawn pesticide applicator also must provide a copy of the label to the property owner; if a lawn pesticide application is made within 100 feet of a dwelling, multiple dwelling, public building, or public park, visual notification markers are required on the property where the pesticide application was made; neighbor notification (in counties opting in to the state law) requires: 48 hour notification to neighbors in certain situations, posting of visual markers, notifying occupants of a multiple dwelling and other occupied structures and posting of informational signs at pesticide retailers selling general use pesticides; notification of pesticide applications in schools and at daycare facilities. (presentation, slide 84)

21. Explain how to properly store a pesticide.

To properly store a pesticide, you should: check the label for specific requirements such as keeping the product away from heat or open flame or protecting it from freezing; storing pesticides in their original container with the original label intact; keep in a cool, dark, dry area away from temperature extremes; not store near heat sources; keep away from food, seeds, and protective clothing; and keep out of reach of children and pets.

22. Explain how to properly transport pesticides.

Properly transporting pesticides includes: not transporting them in the passenger area of a vehicle; when transporting in an open vehicle like a mini-van, keeping the pesticide in the back away from passengers; keeping pesticides away from groceries and household items, including not bagging these items together; avoiding transporting pesticides in the same area of the vehicle as groceries or household items; keeping container lids fastened to avoid spills

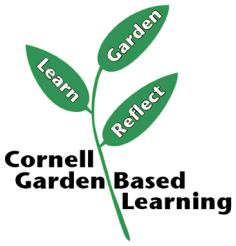
and leaks; keeping containers upright and secured to avoid spills; protecting pesticides from temperature extremes; and not leaving pesticides unattended in a vehicle.

23. What is the best way to handle a pesticide spill?
The best way to handle a pesticide spill is to avoid them. (presentation, slide 89)

24. If you have a pesticide spill, what should you do?
In case of a pesticide spill, use label-listed PPE and follow any specific spill cleanup directions under the "Storage and Disposal" section of the pesticide label. Then you should follow the 3 "Cs"of spill cleanup - **c**ontrol the spill; **c**ontain the spill; and **c**lean up the spill. After cleaning up a sill, wash your hands and any other areas that have been exposed with soap and water. (presentation, slide 89)

25. How do you handle pesticide wastes?
The best way to handle pesticide wastes is to prevent or minimize waste generated. This includes only purchasing what's needed to do the job and to use up the product according to label directions. You should also consult the "Storage and Disposal" section of the pesticide label for specific instructions on what to do with empty containers or leftover pesticides. You can also contact your county solid waste agency for information on what to do with leftover pesticides. Remember, pesticide containers cannot be reused and don't pour leftover pesticides down the drain, storm sewer, or on the ground. (presentation, slide 90)

26. Explain the responsibilities of Cornell Cooperative Extension educators and Master Gardener Volunteers when making pesticide recommendations.
Recommendations should be from documented authoritative sources; use the most current Cornell Crop and Pest Management Guidelines or updated Cornell department fact sheets that have been reviewed by the Pesticide Management Education Program at Cornell University; other sources can be used provided they've been reviewed by PMEP; minimum-risk (or 25(b)) pesticides can be recommended but they need to be vetted through PMEP first for compliance and use and the user needs to be informed that these products are not subject to EPA safety and efficacy testing. All recommendations – written or verbal – need to be documented, including the date, client's name, summary of the situation, and the details of the recommendation (including specific products and rates). For minimum-risk pesticide recommendations, the CCE educator or Mater Gardener Volunteer must make a record that the client was notified that minimum-risk pesticides aren't subject to EPA efficacy or safety testing. Recommendations can be documented using the "Recommendations Record Book Form" provided in FORM Code 1501 or in a secured computer file. Recommendation records must be kept for a minimum of 7 years according to the records retention policy.



References: Pesticide Management Education Program (PMEP)
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Author(s)/Contributor(s): Michael Helms (PMEP)
Reviewer(s): Ashley M. Helmholdt, Donna Alese Cooke