Safe Handling, Pesticide Disposal, and Calibration

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Read the Label

- Is this the right product?
- What PPE will be needed?
- Resist the urge to buy more
- Follow all directions
Signs of familiarity…

• Not reading pesticide label
• Assumption that newly purchased product has same label as old product
• Application rate from memory
• Using same product for all situations
Transporting Pesticides

- Label & packaging intact?
- Secure containers
- Truck with fuel; no stops
Storing Pesticides

- Avoid sensitive sites
- Designate a specific area
- Store original, labeled containers only – no other containers used
Storing Pesticides

• Floor made of impermeable substance
• Well-lighted, ventilated, dry area
• Temperature controlled
Metal shelving

Liquids on lower shelves; Dry products above

Basins for possible spills, leaks

Impervious flooring
Spill pallets
Storing Pesticides

• Check containers to see if damaged
• Expect leaks, spills – be prepared
Also: putting concentrate in smaller bottles to use in the field; unlabeled
Storing Pesticides

- Keep current inventory
- Proper storage of empty containers
Storing Application Equipment

- Lock it up
- Remove ignition keys, disable, or hide switches
- Only clean equipment should be stored
Mixing the Pesticide

- Children and pets AWAY
- Re-read product label
- Put on required PPE
- Put water in sprayer, pressurize and check for leaks
Mixing the Pesticide

- Mix outside or in well-ventilated area
- Impermeable mixing pad is ideal
Mixing the Pesticide

- Make only amount you will use that day
- Keep air gap between fill hose and tank
- Position concentrate lower than eyes
- Leave no sprayer behind…
Disposal of Pesticides

• Pressure-rinse or triple-rinse recently emptied containers. Add rinsates to tank.
• Properly rinsed, non-refillable plastic containers recycled – see PAT 48
Disposal of Pesticides

- Thoroughly shake granular sacks over hopper; dispose of sack in landfill
- Do not re-use non-refillable containers for any reason.
Disposal of Pesticides

- Return refillable containers to point of purchase. Don’t rinse or try to empty...
Damaged, unwanted or illegal product? Call Regional Collection Center for help.

515-281-5918
Apply the Pesticide

- Day should be not windy, 50-80F, no threat of rain
- Check area for possible hazards, sensitive sites, other things to avoid
- Adequate daylight to safely & correctly make the application
Keep children, pets away from spraying operations
All-in-one plant/spray setup
Apply the Pesticide

• Wear the proper PPE
• According to label directions
• Spray out in timely fashion; try not to leave mixture overnight
Clean up the Equipment

• Immediately following application
• Consult label and equipment manual
• Rinsates applied to treated area or non-crop land – avoid well, surface water
Clean up the Equipment

• Properly clean gloves, face shield, boots, respirator
Pesticide exposure in homes of farm families

- 25 non-farm homes
- 25 farm homes
How much pesticide residue was found in the carpet dust?

- **Non-farm home**
- **Farm home - No recent pesticide use**
- **Farm home - Recent pesticide use**

<table>
<thead>
<tr>
<th>Type of pesticide</th>
<th>Average amount of pesticide (parts per billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrazine</td>
<td></td>
</tr>
<tr>
<td>Metolachlor</td>
<td></td>
</tr>
<tr>
<td>Chlorpyrifos</td>
<td></td>
</tr>
<tr>
<td>Glyphosate</td>
<td><strong>1400</strong></td>
</tr>
<tr>
<td>2,4-D</td>
<td></td>
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</tbody>
</table>
How much atrazine was found in each room?

- Non-farm home
- Farm home - No recent pesticide use
- Farm home - Recent pesticide use

Average amount of atrazine (parts per billion)

<table>
<thead>
<tr>
<th>Room</th>
<th>Non-farm</th>
<th>Farm No Recent</th>
<th>Farm Recent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laundry Room</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Entranceway</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Farmer’s Changing Area</td>
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</tbody>
</table>

Rooms where the dust samples were taken
Reduce pesticide exposure in the home:

- Remove work clothes in an area away from the rest of the house
- Wash work clothes separately from the other laundry; hot water; dry
- Remove work shoes and boots before going into the house.
Reduce pesticide exposure in the home:

- Vacuum the carpets and clean the floors on a regular basis.
- Close windows and doors in the house during pesticide spraying.
- Keep children and pets inside when applying pesticides.
Protect Yourself

- Wash hands well; use soap and water
- Keep hydrated between spraying sessions
- Avoid wearing soft contact lenses
- Shower as soon as possible after you are finished spraying
Pesticide Poisoning

• Call for assistance
• Take container to hospital
• Basic first aid until help arrives
  – **Skin**: remove clothing; wash area
  – **Eyes**: flush with water for 10-15 minutes
  – **Inhaled**: seek fresh air, loosen clothing
  – **Swallowed**: read label to know if inducing vomiting or dilute with water, milk
Equipment calibration
Equipment calibration