Transportation, Storage, and Spill Response

Pesticide Recertification
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Objectives for review

- Pesticide Transportation
- Storage
- Spill Management
- Laundering
Transportation

• Be prepared!

• Vehicle safety
  – back of truck (lined with side and tail racks)
    • never in a passenger area
    • never allow anyone to ride with pesticides
    • never transport other items with pesticides
    • never leave vehicle unattended
    • transport highly volatile pesticides separately to avoid contamination
Vehicle Operator

• Owner and operator can be liable for damages that occur during transport of pesticides
• Driver should be trained in spill control procedures
• Some pesticides considered HAZMAT, even empty containers
• DOT regulates vehicle placarding, inspecting before use, training, licensing background checks and record keeping
Transporting Containers

- Keep intact with readable labels
- Inspect before loading
- Handle carefully
- Anchor securely and cushion
- Protect from moisture
- Protect from temperature extremes
- Adhere to DOT requirements
Storage

• Establish a storage site
  – protects people and animals from exposure
  – protects environment from contamination
  – prevents damage to pesticides
    • temperature and moisture extremes
  – prevents theft, vandalism, unauthorized use
  – reduces liability
    • legal and insurance requirements
Storage Basics

• Secure the site
• Prevent water damage
• Control temperature
• Provide adequate lighting
• Use non-porous materials
• Prevent runoff
• Provide clean water
Maintain the Storage Site

- Prevent contamination
- Keep labels legible
- Keep containers closed
- Use original containers
- Watch for damage
- Store volatile products separately
- Isolate wastes
- Keep an accurate inventory
- Monitor shelf life
Containment Systems

• Collection Trays
  – Portable
  – When *small* amounts of pesticides are used
  – For portable equipment
  – **MUST** have a rim around it and a spout to pour out contents.
Containment Systems

• Collection Pads
  – When large amounts of pesticides are used
  – Made of waterproof material
  – Must have curbs, walls or be concave to hold largest amount of spill likely to be created
  – Must be equipped with pump for recovering spilled material
  – Locate where water cannot flow over it.
  – Wash pad at end of day
The 3 C’s of Spill Management

- **Control** the Spill!
- **Contain** the Spill!
- **Clean It Up!**
Control the Spill!

• Protect yourself
• Stop the source
• Protect others
• Stay at the site
Contain the Spill!

- Confine the spill
- Protect water sources
- Absorb liquids
- Cover dry materials
Clean It Up!

• Clean up spill
• Decontaminate site
• Neutralize site
• Decontaminate
  – equipment
  – yourself
• Follow up
  – Report to VDACS
  – VDOT on highway, police/fire
  local roads
Spill Kit

- Cell phone/emergency numbers
- Chemical resistant gloves, footwear, apron, coveralls
- Protective eyewear
- Appropriate respirator
- Absorbent materials
- Sweeping compound for dry spills
- Heavy Duty Detergent
- Containment tubes
- Broom, Scoop, Shovel
- Plastic container that can be tightly closed
- Any spill equipment on label
- Warning tape
- Fire extinguisher
- Spray bottle of water
Laundering Pesticide-Contaminated Clothing:

- Pesticide contamination can occur from dermal exposure
- Pesticides can penetrate the skin due to:
  - Drift
  - Spills
  - Contact with residues on surfaces (ex. in or on contaminated clothing)
Fiber Content of Clothes & Pesticides

• 100% cotton, 50/50 cotton/polyester blends make no significant difference in the amount of pesticide removed.

• 100% polyester garments allow more penetration of pesticides and SHOULD NOT BE WORN!

• ALWAYS REMEMBER TO READ YOUR GARMENT LABELS!
Treat or Pretreat Garments with:

- Scotchgard $R^{TM}$ or Zepel $R^{TM}$ reduce absorption and give a barrier
  - It is temporary and should be re-applied after every second laundering
- Treatment requires more vigorous laundering treatment to remove pesticide residues
- Pre-wash spot and stain removers are recommended. Examples are Shout$^{TM}$ and Spray’ n Wash$^{TM}$
• Use disposable protective clothing if at all possible to limit contamination of clothing.

• Remember to always use chemical-resistant gloves.
Washing Contaminated Clothing

- Who is doing the Laundry????
- Pesticide contaminated clothing may pose a risk not only to the applicator but to the person doing the laundry and other family members and pets!
- *Tossing contaminated articles into the FAMILY WASH can TRANSFER the residue to other garments!*
Risks can be lowered by:

• Discarding clothing saturated with highly toxic, undiluted pesticides before entering the house.
• Pre-rinse garments TWICE in hot water prior to washing
• **SEPARATE** FROM OTHER FAMILY LAUNDRY

• LAUNDER **ASAP**, PREFERABLY **DAILY**

• LAUNDER ONLY A **FEW** ITEMS AT A TIME
Washing

• **USE HOT WATER (140°F)** - Extra large load setting. Regular/normal 12 minute wash-spin cycle, double rinse.

• **USE LONGEST WASH CYCLE** - IF YOUR WASHER HAS A SUDS-SAVER, DISENGAGE IT.

• **USE THE RIGHT DETERGENT (HEAVY DUTY).**
After washing

• CLEAN WASHER AFTER USE WITH COMPLETE CYCLE USING HOT WATER AND DETERGENT.

• LINE DRY CLOTHES IF POSSIBLE TO KEEP FROM CONTAMINATING THE DRYER.
Pesticide Clothing Safety --
What can YOU do?

• Wear clean clothes daily.
• Follow precautionary labels on the pesticide in choosing protective gear.
• Wear protective aprons and waterproof gloves during mixing and loading of pesticides to protect from spills.

Remember, **all** pesticide spills are chance events.
• Remove your pesticide-soiled clothing outdoors and away from the house.
• If granular pesticide has been used, shake clothing outdoors and empty pockets and cuffs.
• If pesticide has left a stain, use a pre-wash product or rub heavy-duty liquid detergent into the stain prior to the wash cycle.
• **Discard** all clothes that have been saturated with full-strength liquid pesticide concentrate.
Leather Items

• Leather watch bands, boots, and gloves cannot be decontaminated. When contaminated leather is worn and becomes damp, the person is exposed to the pesticide again. If/when contaminated, leather items should be **discarded** because of this hazard.
Questions?

Contact information

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