



THE UNIVERSITY OF GEORGIA
COLLEGE OF AGRICULTURAL &
ENVIRONMENTAL SCIENCES

Practical Considerations for Solid Manure

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 **Topics of Concern** 

- **Manure Spills**
- **Discharges from outside manure piles**
- **Spontaneous Combustion of manure piles**

 **Manure Spills** 



- **↓ Pollution potential**
 - **↓ Movement across surface**
 - **↓ Infiltration**
 - **Easier cleanup**

 **Areas of Concern** 

 **Loading areas**

 **Local Transport**

 **Long distance hauling**

 **Fields**

 **Basic Prevention** 

- **Driver/land applicator TRAINING!!!**
- **Clean up spilled manure from loading areas**
- **Do not overload trucks short or long distances**
- **Keep covers maintained and cover loads when needed**
- **Inspect equipment before leaving loading area**
- **Regular maintenance and calibration scheduled**
- **Follow application rates specified in a NMP**



 **Spill Response** 

- **Human safety always first**
- **Contact proper authorities and emergency response**
- **Prevent material from entering surface water**
- **Scrape and clean up as much material as possible**
- **Wash manure off roads – if dry manure is rained on it will be extremely slick and dangerous**
- **Reports and follow-up**

 **Avoid the News!** 

Breaking News:
Wednesday, Oct. 29, 2008
Crappy commute: Manure spill halts traffic, causes accidents on Highway 99



 **Manure Piles** 

- Dry manures cannot always be immediately land applied from houses and must be stored
- Piling manures outside is acceptable if done properly
- If not done properly, dry manure can become liquid and a discharge can occur









Manure Storage Fires Causes



- Heat is produced from microbial activity in manure piles
- The amount of heat produced can be influenced by:
 - Pile size
 - Pile compaction
 - Moisture
 - Layering wet and dry litter



Photo by: Richard Nottingham
Univ. of Maryland Extension

 **Manure Storage Fires Prevention** 


- Height of manure piles should not be > 5 feet
- **MONITOR TEMPERATURE!** Remove any smoldering material and material > 180°F
- Monitor moisture and protect piles from rain
- Do not mix wet manure with dry manure
- Do not compact manure piles
- Allow plenty of air movement to allow piles to vent naturally


Photo by: Richard Nottingham
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 **Manure Storage Fires Response** 

- Look for warning signs: smoldering pile, burning litter smell, or temp > 180°F
- **DO NOT ADD WATER!**
- Spread out manure (if it is safe to do so) – have fire department on site
- Contact local fire department if structures catch on fire



 **Additional Resources** 

- Preventing Fires in Litter Storage Structures
<http://www.aces.edu/pubs/docs/A/ANR-0915/>
- Preventing Fires in Manure Storage Structures
<http://extension.umd.edu/publications/pdfs/fs820.pdf>
PPT presentation:
<http://mdchick.umd.edu/files/preventing%20fire%20in%20manure%20shed.pdf>


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Thank You

Next Presenter
Dr. Shawn Hawkins
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