

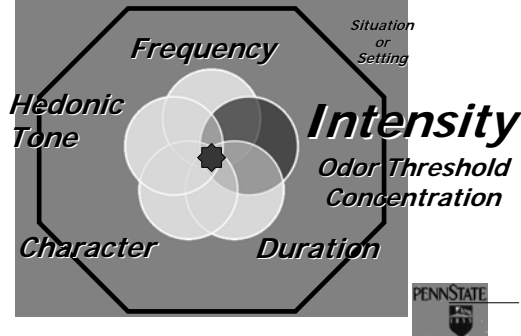
Field Olfactometry Monitoring of Manure Odors Following Land Application

Robin C. Brandt
Department of Agricultural & Biological Engineering
The Pennsylvania State University

Prepared for:
AQEAA WebCast - September 18, 2009
Air Emissions from Land Application of Manure



Nuisance Odor Assessment



Odor Threshold Concentration

Detection Threshold (DT).....

Lowest concentration of odor detected by human assessors.

*DT is sometimes expressed as "Odor Units"
For field olfactometry.....*

"Dilutions -to-Threshold (D/T)"

"Objective".....

Treating or dealing with facts without distortion by personal feelings or prejudices.

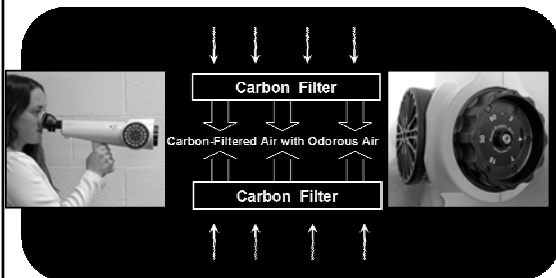
Odor Threshold Concentration *Lab - Dynamic Olfactometer*

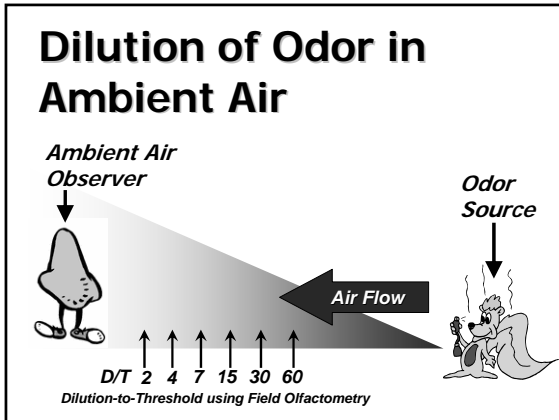


Lab - Dynamic Olfactometer



Odor Threshold Concentration *Field Olfactometer*






Field Olfactometry

Advantages:

- On-site "REAL-TIME" measurement
- No need for sample collection
- Lower detection levels possible
- Relatively low cost

Disadvantages:


- Variable field conditions
- Personnel logistics

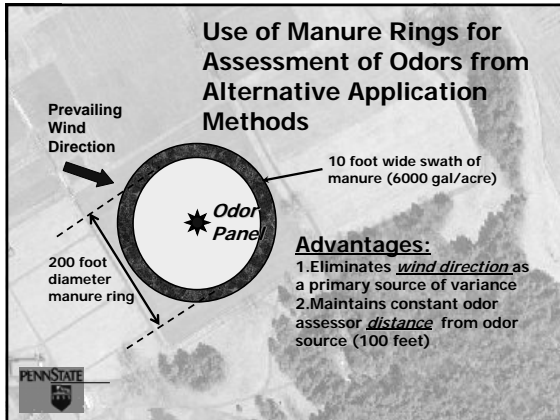


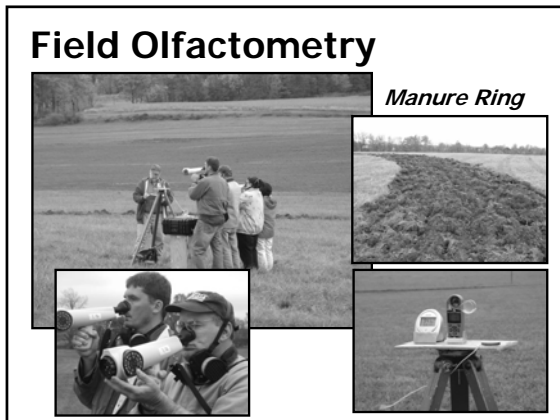
Quantifying Odor Emissions from Alternative Dairy Manure Application Methods

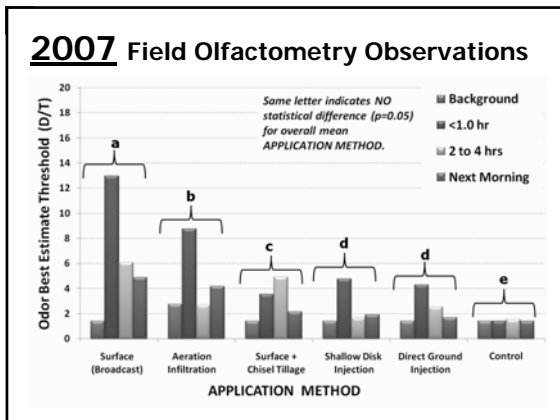
Primary Objective:

To determine if there is a statistical difference in odor emission among several different manure application methods









Additional Reading & Contact Information

Brandt, R.C., H.A. Elliott, M.A.A. Adviento-Borbe, E.F. Wheeler, P.K.A. Kleinman, D.B. Beegle. 2008. Field of factometry assessment of dairy manure land application methods. ASABE Paper No. 084939. *Poster Presented at: 2008 ASABE annual international meeting. June 29-July 2, 2008. Providence, RI.*

Robin C. Brandt
Penn State University
Dept. of Agricultural & Biological Engineering
101 Ag Engineering Building
University Park, PA 16802-1908
E-mail: rcb100@psu.edu



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