

## APPENDIX A

### Environmental Stewardship Assessment: Land Application and Outdoor Air Quality Issues

The goal of this assessment is to help you confidentially evaluate environmental issues that relate to outdoor air quality. For each issue listed in the left column of the worksheet, read across to the right and circle the statement that best describes conditions on your farm. If any categories do not apply, leave them blank.

Potential Odor Risk	High Risk	Moderate Risk	Low Risk
<b>General Considerations</b>			
<b>Relative risk of</b> <ul style="list-style-type: none"> <li>Spray irrigation</li> </ul>	Spray irrigation of top water or slurry from manure storage, earthen basin, or undersized anaerobic lagoon	Spray irrigation of top water from lagoon designed according to standard engineering designs.	Spray irrigation of top water from aerobic lagoon, purple lagoon, or lagoon designed for odor control (permanent pool twice as large as standard engineering designs)
<ul style="list-style-type: none"> <li>Tanker or towed hose application</li> </ul>	Surface application of stored slurry manure	Surface application of slurry manure followed by same day incorporation OR Surface application with drop hose applicator	Subsurface injection of slurry manure
<ul style="list-style-type: none"> <li>Solid manure spreader</li> </ul>	Surface application of wet solid manure	Surface application of dry or heavily bedded solid manure	Surface application of dry or heavily bedded solid manure followed by same day incorporation OR Immediate incorporation of wet solid manure
Have other odor treatment technologies been adopted for the manure storage or lagoon?		Independently documented odor control additive OR Anaerobic lagoon sized for odor control OR Purple lagoon	Anaerobic digestion OR Aerobic treatment OR Composting
<b>Timing of Manure Application</b>			
Time of day?	Time of day is not commonly considered. Evening application is common.	Commonly applied during daylight hours before 5 pm	Always applied during daylight hours after 8 am and before 5 pm
Weather conditions?	Weather conditions are not commonly considered.	Commonly applied on sunny, windy days	Always applied on sunny, windy days
Weekends/Holidays?	Weekends and holidays are not commonly considered.	Weekends and holidays are commonly avoided.	Weekends and holidays are always avoided.
<b>Spray Irrigation Considerations</b>			
Type of spray nozzle?	Big guns or high-pressure nozzles that direct spray into the air	Low-pressure drop nozzles that release liquid above crop canopy	Low-pressure nozzles that release liquid below crop canopy
Dilution with fresh water?	No dilution	Mixing of fresh to lagoon water at a ratio of less than 3 to 1	Mixing of fresh to lagoon water at a ratio of 3 to 1 or greater
Time of year for application (for anaerobic lagoons only)?	Spring (shortly after lagoon has become active) or winter (when lagoon is inactive)	Early summer (after lagoon has been active for 2 months or more)	Mid summer through fall (when lagoon has been active for several months)
Time delay between last lagoon feeding and spray irrigation?	Lagoon receives manure within few days of spray irrigation from lagoon.		Manure flow to lagoon is stopped for two weeks prior to spray irrigation from lagoon.