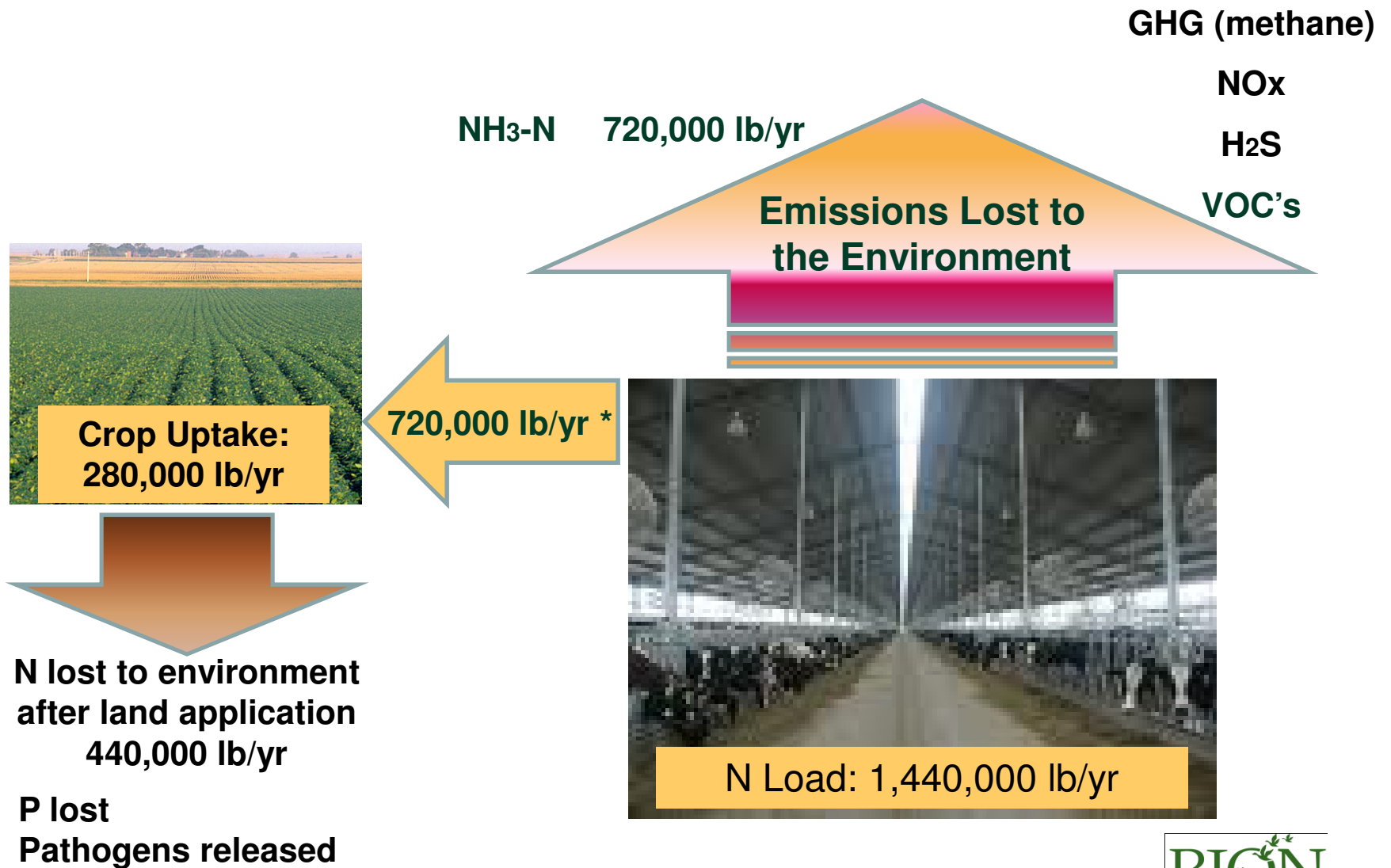


Comparison of Risks

July 14, 2010



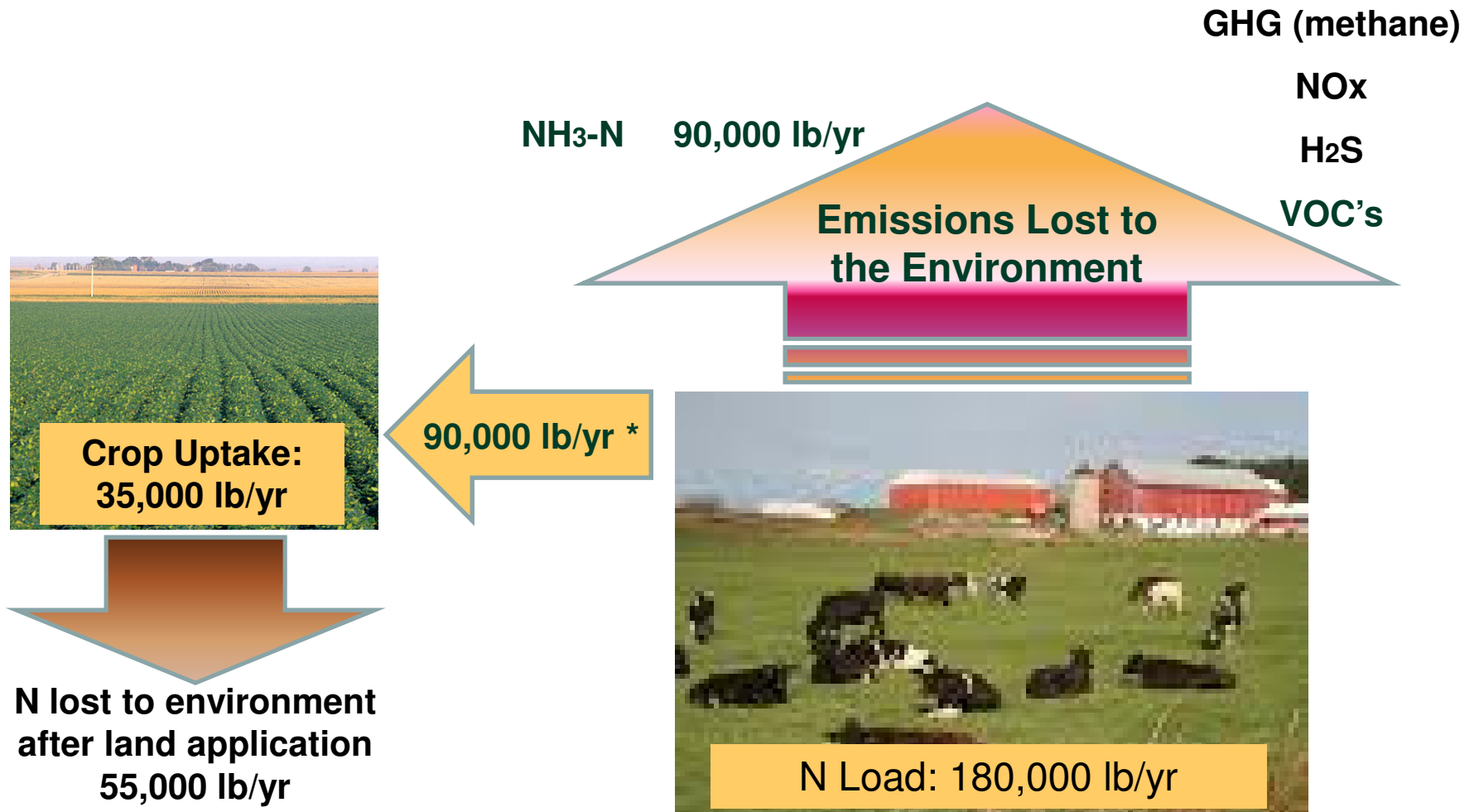
4,000 Milker Modern Dairy



Slide 2 * Assumes lagoon storage w/ BMP's under an NMP



500 Milker Modern Dairy



Slide 3 * Assumes lagoon storage w/ BMP's under an NMP



Summary of Environmental Impacts

Summary of Nitrogen Losses from Modern Dairy Operations

Fate of Nitrogen Lost to Environment	4,000 Milker Dairy (lb/yr)	500 Milker Dairy (lb/yr)
Nitrogen Volatilized to Air as Ammonia	720,000	90,000
Manure N Content Lost on Land	440,000	55,000
Total Nitrogen Lost to the Environment *	1,160,000	145,000

* Assumes lagoon storage w/ BMP's under an NMP

Pennsylvania DEP Letter Confirming Nutrient Credits Award Basis for Bion's Technology

- Approximately 2/3 of total nitrogen credits are generated by elimination of ammonia emissions from the dairy herd.



Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063
April 2, 2010

Water Planning Office

717-772-4785

Mr. Jeremy Rowland
Bion Environmental Technologies
Bion PA1, LLC
1035 South Gaylord Street
Denver, CO 80209

RE: Nutrient Credit Generation Certification for 1200 Dairy Cows

4. Nitrogen gas (N₂) generated from operation of the microaerobic biological reactor (“reactor”) in the treatment system and from combustion of the coarse solids (if Bion chooses to combust the coarse solids) shall be available for the generation of nitrogen reduction credits minus the NO_x emitted from the reactor and combustion process. The amount of nitrogen gas emitted will be calculated based on actual throughputs and based on actual values measured by the monitoring/verification plan approved as part of the Water Quality Management Part II permit issued for the construction and operation of the treatment system.

Nitrogen Losses to the Environment w/ Bion

14,000 Head Integrated Cattle Feeding Facility

Total load of N = 106 lb N per head per year.

Summary of Nitrogen Losses from Bion Treated Cattle Facility w/ Constructed Wetlands

Fate of Nitrogen Lost to Environment	Bion 14,000 Beef Finishing Module (lb/yr)	
	Fed Cattle	Holsteins
Nitrogen Volatilized to Air as Ammonia	23,000	157,000
Manure N Content Lost on Land	3,000	2,000
Total Nitrogen Lost to the Environment *	26,000	159,000

* Majority of N lost converted to stable, organic forms.

Comparison of Bion and Traditional Approaches

Nitrogen Lost to the Environment

Comparison of Nitrogen Losses from Bion Treated Beef Module vs. Traditional Modern Dairy Operations

Fate of Nitrogen Lost to Environment	N Losses from typical 500-Milker Dairy vs. Bion 14,400 Beef Module w/ Constructed Wetlands (lb/yr)	
	500 Milker Dairy	Bion Module Average
Nitrogen Volatilized to Air as Ammonia	90,000	91,500
Manure N Content Lost on Land	55,000	2,500
Total Nitrogen Lost to the Environment *	145,000	94,000