

# VII: Breakout Session - The Feasibility of Nutritional Strategies and Approaches for Implementation by 2012.

Facilitator: David Beede, Michigan State University

**Purpose of Session:** Through small “think tanks” examine the feasibility of nutritional strategies and approaches for implementation by 2012 with assessment of the morning's discussion.

## Description of Breakout Session Activity ~ Tuesday afternoon, April 17

### Objectives.

**1. Overall.** A key objective of Discover Conferences is to provide an environment and format that encourages stimulating interactions among scientists, educators and industry practitioners. Tuesday afternoon Think Tanks are utilized to facilitate and encourage the free interchange of current, new, and potentially worthy, but yet untested ideas and possible solutions related to nutritional management for environmental stewardship.

**Central Discussion Question:** What nutritional strategies and practices exist and (or) will need to be developed and tested to meet environmental benchmarks (expectations) for animal agriculture by 2009 and 2012 (5 years from now!)?

### 2. Specific objective and charge.

Develop specific criteria, a specific List of Strategies and Approaches, and the outline of a Plan of Action to meet benchmarks (expectations) defined in Backcasting Scenario #1 (page 3 of this document).

The basis and framework for discussions by Think Tanks is Scenario #1 along with current and new ideas delivered thus far in DC12, plus the unique intellect, experience, knowledge, and communication skills of each DC12 participant.

**Charge. Working in small Think Tanks and based on Scenario #1:** (80 minutes budgeted)

- a. Develop a draft list of current and possible nutritional strategies and approaches to reduce chemical excretion and emissions from domestic livestock and animal farm/operations to meet benchmarks in Scenario #1 (15 minutes budgeted); this list will be prioritized subsequently;
- b. Discuss and set the criteria your Think Tank wants to use to prioritize the list you have developed; among other criteria your Think Tank may wish to consider the following as examples: potential magnitude of change; urgency for solution(s); ease to accomplish or implement; required by law; opportunity for environmental service credits; profitable to livestock/poultry producers; inexpensive; likely to have major positive environmental impact, etc.) (15 minutes budgeted);

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- c. Using your List of Strategies and Approaches (part “a” above) plus your prioritizing criteria (part “b” above), and the ideas, concepts and information delivered thus far in DC12, as well as knowledge and experience of members of your Think Tank prioritize (rank) your specific List of Strategies and Approaches 15 minutes budgeted);
- d. Develop the outline of an Action Plan that helps other conference participants envision what your Think Tank thinks (!) is important (and why), itemizes and addresses what other information or knowledge (e.g., research) is needed to implement new ideas and concepts; and, how (what approaches) w/could be taken in the field to spark implementation and result in desired positive impacts (35 minutes budgeted; last 5 -10 for wrap-up and setting delivery of presentation to entire Conference); and,
- e. Beginning at 3:00 p.m., present a 10-minute report on your Think Tank’s work (criteria for priority setting, List of Strategies and Approaches, and outline of your Think Tank’s Action Plan) to the entire DC12 audience. (The Organizing Committee and summarizers will be synthesizing the Think Tank reporting information for final summary at the Conference).

### Mechanics and material needed for Think Tank Sessions:

1. The DC Organizing Committee will assign participants to Think Tanks (n = 6-8/Think Tank) with the intention of creating cross-sectional diversity of areas of interest and expertise.
2. The DC Organizing Committee will select a lead facilitator from among the participants in the Think Tank; this person will be asked to serve before Tuesday afternoon.
3. The facilitator should: **a)** facilitate the process, capture and organization of information; **b)** keep the Think Tank on time; and, **c)** identify a person who will deliver the Think Tank’s work to all DC participants in a 10-minute report beginning at 3:00 p.m.
4. A member of the DC Organizing Committee will act as recorder and scribe, but take a secondary role in the discussion, unless the process and Think Tank needs catalyzing.
5. DC Organizing Committee members who will scribe/record/assist in each Think Tank include: Powers, Angel, Cole, Eng, Frankenbach, Radcliffe, Rozum, and Wattiaux; Beede, Graham and Sutton will mingle among the Think Tanks.

☀ Flip charts and markers will be provided to each Think Tank.

### Session VII. General Time Schedule for Tuesday afternoon (as printed in official program):

11:50 AM . . . . . Set the Stage for the Afternoon *David Beede, Michigan State University*  
Think Tanks

11:55 AM. . . . . BOX LUNCH

1:00 PM . . . . . Groups should be at their assigned Think Tank locations and begin their discussions.

1:00 PM. . . . . Afternoon Session VII: Breakout Session - The Feasibility of Nutritional Strategies and Approaches for Implementation by 2012. *Facilitator: David Beede, Michigan State University*

2:30 PM. . . . . BREAK

3:00 PM. . . . . General Session: Share Breakout Thoughts  
Conference Summarizers and Provocateurs *Alan Sutton (Purdue University), Tom Graham (Consultant - Davis, California)*

4:30 PM. . . . . Adjourn for the afternoon

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Backcasting Scenario #1

For 2007 Discover Conference on Integrating Nutritional Management into Environmental Stewardship

### Scenario #1: Year: 2012

#### Overview:

- a. In late 2007, a two-phase legislation was passed that required all livestock production facilities to reduce N and P excretion by 20% as of 2009, relative to levels recorded in 2007 with additional reductions required by 2012. Also by 2009, a 20% reduction in ammonia emissions was mandated along with a 10% reduction in hydrogen sulfide emissions, and a 10% reduction in dust emissions (Total Suspended Particles).
- b. It is now 2012. This first round of reductions (2009 deadline) was accomplished relatively easily. The second phase called for reductions in N and P excretion by 50%, ammonia and NO<sub>x</sub> emissions by 50%, hydrogen sulfide emissions by 30%, and PM<sub>2.5</sub> and PM<sub>10</sub> by 40%. Additionally, beef feedlots and dairy operations were required to reduce methane emissions by 40%. Initially, it appeared as if much of the U.S. livestock production was going to move to foreign countries where environmental regulations were less rigorous. However, with high crude (fossil) oil prices making the prospect of importing expensive, and with the possibility of a Global Environmental Protection Act being discussed, livestock production has been maintained and even increased 5-10% across all species. To be in compliance with the new environmental regulations, additional costs were incurred by producers, raising the cost of production by approximately 5%.

How were the 2009 reductions achieved?

What changes in approach were needed to reach the 2012 benchmarks?

What sort of measurements and documentation allows for accurate follow-up on each of the targeted emissions?