Project Update

Global Land Conversion Decisions and the Impact of U.S. Carbon Offset Credits on Agriculture

Dermot J. Hayes
Biobased Industry Center Grants Program

6 May 2011
Review of the Project

• Implementation of a fertilizer model
• U.S. carbon offsets through afforestation and its impact on world agriculture

• Scenarios
  – Fertilizer Tax
  – Afforestation

• Improvements to GreenAgSiM
  – Land-conversion decisions
Fertilizer Model

• The Fertilizer Model
  – The WorldNPK Model
  – The WorldNPK model has been implemented within the FAPRI model
  – Already used for baseline projections and scenario analysis
Project Update

World Fertilizer Model—The WorldNPK Model

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Project Update

Corn: Nitrogen application rates

N Corn

0 - 17
18 - 43
44 - 66
57 - 61
62 - 72
73 - 79
80 - 93
94 - 124
125 - 171
172 - 480

Hayes
May 2011