

Climate Change and Greenhouse Gas Mitigation: Challenges and Opportunities for Agriculture

A New Task Force Report from the Council for Agricultural Science and Technology

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Written by a task force of 15 scientists, *Climate Change and Greenhouse Gas Mitigation: Challenges and Opportunities for Agriculture* highlights agriculture's complex, pivotal role as both a source and a sink for the increase in greenhouse gas (GHG) emissions.

The comprehensive new Report outlines each of the three major GHGs (carbon dioxide, nitrous oxide, and methane) in terms of their impacts on climate change and agriculture, the processes controlling their emission and mitigation, and policy options and designs for both North American and global implementation of mitigation strategies.

The authors identify potential methods for the agricultural mitigation of GHG concentrations, including

- Taking CO₂ from the atmosphere and sequestering it in biomass and soils;
- Decreasing the rate of land clearing for agriculture, taking marginal lands out of production;
- Improving agricultural practices on productive, established agricultural lands;
- Increasing efficiency of farm inputs such as fuel, fertilizers, and pesticides;
- Increasing production of agricultural biofuels to replace fossil energy emissions;
- Improving nitrogen use efficiency as the primary means of decreasing N₂O emissions; and
- Decreasing CH₄ emissions by capturing or preventing emissions from animal manure storage and by increasing livestock production efficiency.

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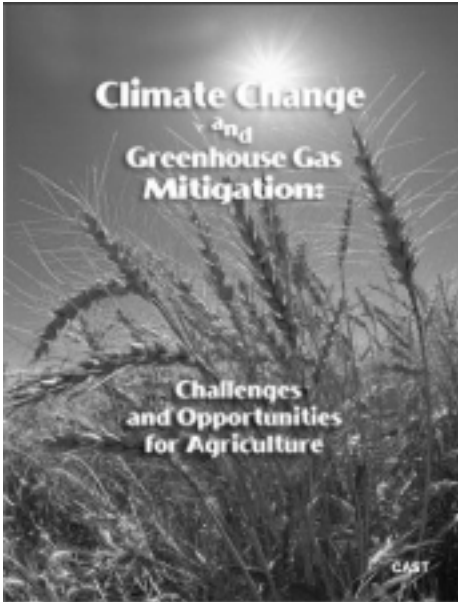


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