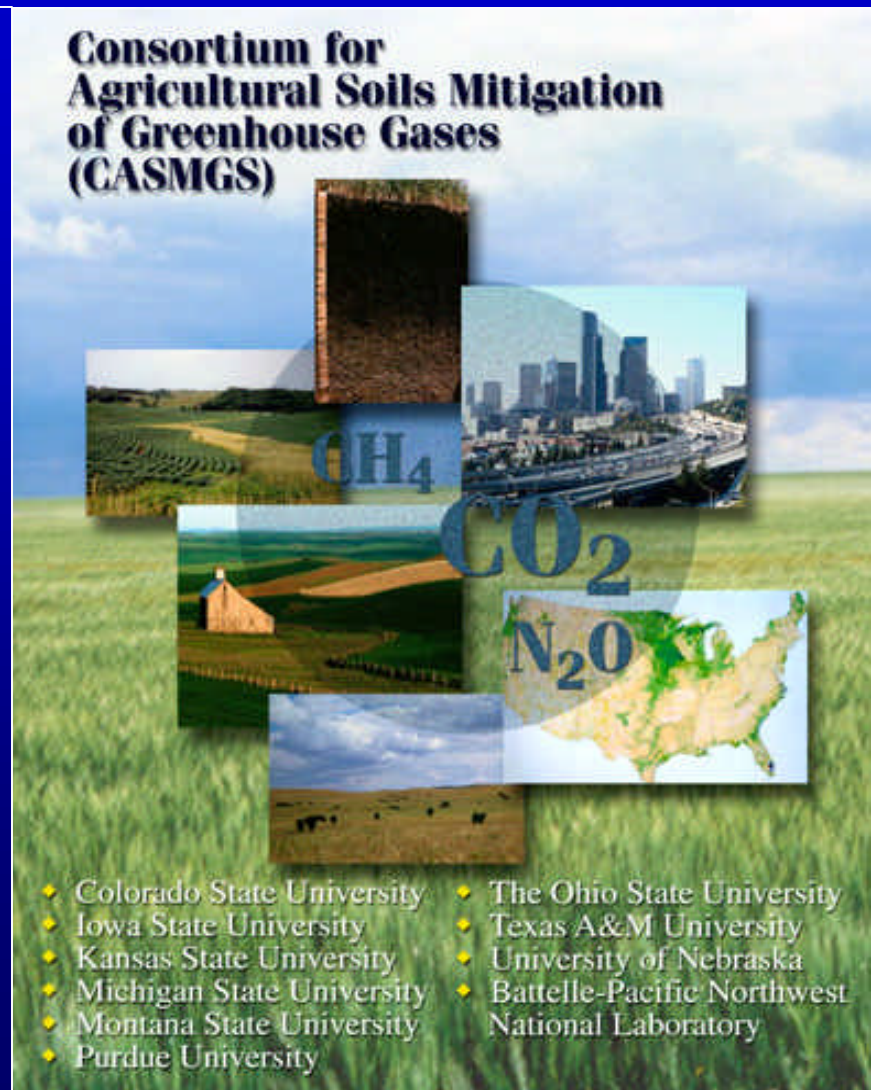


Intensive Research and Monitoring Sites:

- Purpose
 - Obtain detailed measures of ecosystem-atmosphere fluxes & stock changes (Independent checks on inversion results)
 - Obtain new information on the processes regulating C exchange and sequestration
 - Provide data for parameterizing and evaluating models
- Candidate Sites
 - AmeriFlux/FluxCanada
 - Long-term Ecological Research (LTER) network sites
 - Consortium for Agricultural Soil Mitigation of Greenhouse Gases (CASMGs)
- Enhancements needed at Present Sites
- New Sites, New Approaches

Consortium for Agricultural Soil Mitigation of Greenhouse Gases (CASMGs)

- GOAL: To provide the tools and information needed to successfully implement soil carbon sequestration and greenhouse gas reduction programs
- Organizing long-term U.S. agricultural data on soils, climate and management for application to the problem of carbon sequestration
- Initiated in FY 2000, \$10M/yr (?)

The image is a collage representing the Consortium for Agricultural Soils Mitigation of Greenhouse Gases (CASMGs). At the top, the text "Consortium for Agricultural Soils Mitigation of Greenhouse Gases (CASMGs)" is displayed. Below the text, there are several overlapping images: a soil profile, a city skyline, a highway, a farm with a barn, a map of the United States, and a field with cows. Large, semi-transparent text for the greenhouse gases CH₄, CO₂, and N₂O is overlaid on the collage. At the bottom, a list of member institutions is provided, each preceded by a yellow diamond symbol.

◆ Colorado State University

◆ Iowa State University

◆ Kansas State University

◆ Michigan State University

◆ Montana State University

◆ Purdue University

◆ The Ohio State University

◆ Texas A&M University

◆ University of Nebraska

◆ Battelle-Pacific Northwest National Laboratory

AmeriFlux/Flux Canada Sites

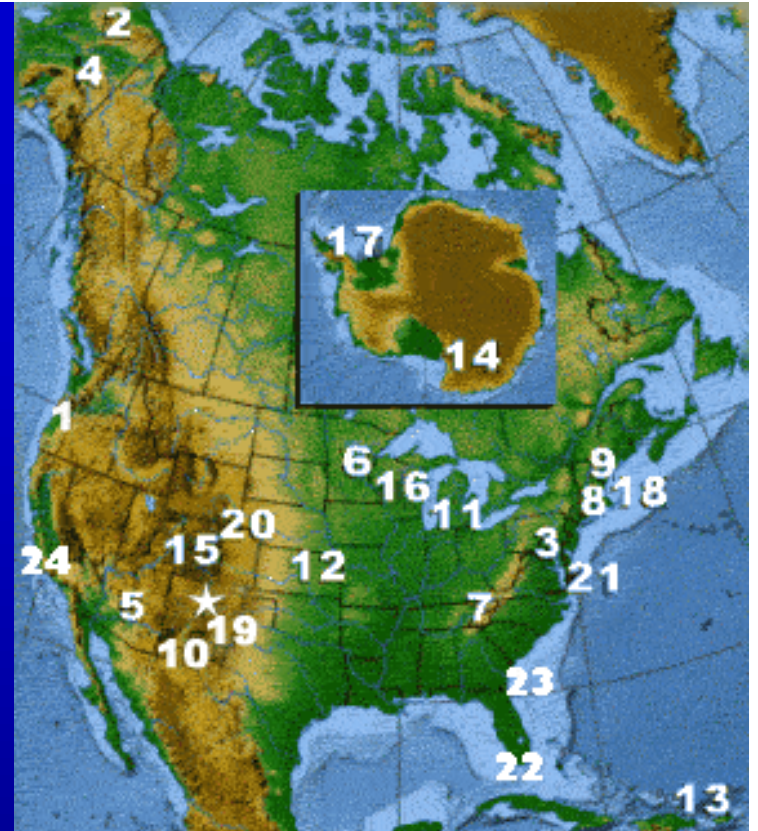
- GOAL: Determine how climate and environmental factors regulate ecosystem C exchange
- Net C flux measurements
- Established 1996 by DOE
 - Multi-agency support
- 48 sites (42 active)
 - 10 sites in Canada
 - 1 new site in Mexico
- Part of FLUXNET

Image courtesy SeaWiFS

LTER Sites

"Understanding ecological phenomena over long temporal and large spatial scales"

- Core areas of research
 - Pattern and control of primary production
 - Pattern and control of organic matter accumulation and decomposition in surface layers and sediments
- US LTER Network (est. 1980 NSF)
 - 24 sites, > 1100 researchers
- Canada EMAN - The Ecological Monitoring and Assessment Network
 - > 85 sites and 100 agencies
- Mexican LTER
 - In process of establishment, 7 sites



SITIOS DE LA RED MEX-LTER



Enhancements needed at present sites:

AmeriFlux Sites

- Assessments of vegetation and soil C stocks

- CH₄ concentration & flux measurements
- High precision CO₂ measurements
- Stable isotope studies
- Near real-time data availability

LTER Sites

- Flux measurements

New sites, New approaches...

- New sites needed for intensive field campaigns
 - Iowa, Minnesota lack LTER & AmeriFlux sites
- Geographical or ecological gaps
- Need for near real-time data and analysis
- Need for close cooperation with other aspects of the NACP
- Integration with satellite data (MODIS, Lidar, etc.)
- Integration with modeling efforts
- Rethink present network structures and organization ?
 - e.g. many automatic flux stations?
 - Shared resource?