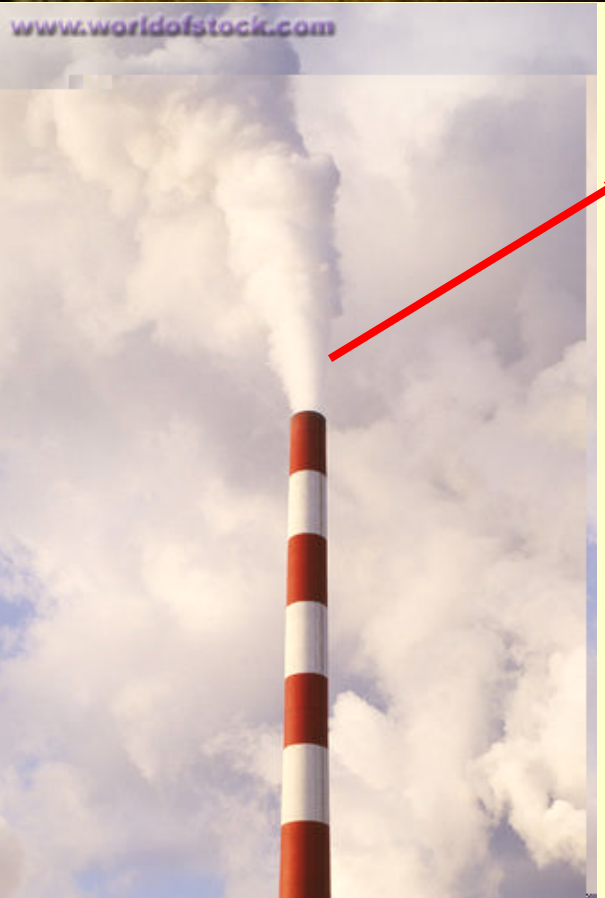
Northeastern Soil Monitoring Cooperative

(Northeastern U.S. and Eastern Canada)

GOAL: To regionally characterize soil change through the application of soil monitoring techniques.

Reforestation of the Late 1800s



Emission of Ca, SO_2, Pb
which are deposited across the landscape

Clean Air Act (1970) and
Clean Air Act Amendments
of 1977 and 1990

The framework of the NESMC should better position us to quantitatively detect and describe changes to the soils of the region

Background Information

- Formed in March 2007, second workshop held March 2008, workshops will continue annually.
- Participants attending the workshops represented the USGS, USDA FS, NRCS, NPS, 11 academic institutions, 2 Canadian government agencies, and 4 state agencies.
- Structure consists of an organizing committee and task groups assigned to address specific needs.

Organizing Committee

- Greg Lawrence, USGS, chair Scott Bailey, USDA FS NRS
- Jim Kaste, Dartmouth
- Rock Ouimet, Quebec Ministry of Natural Resources
- Don Ross, University of Vermont
- Tom Villars, NRCS
- Mark Watson, New York State Energy Research and Development Authority

Current Task Groups

- Soil Archiving – how and where?
- Storage effects – how stable are air-dried samples over time?
- Laboratory QA – developing methods inventory and interlab exchanges of standard soils.
- Review paper – literature review of soil monitoring in North America (to be submitted to June 2008 to JEQ or SSSAJ).

Proposal Titles submitted to the NSRC
(Northeastern States Research Cooperative)

- Assessment of repeated soil sampling as a monitoring tool for investigating the effects of changes in soil chemistry on trends in tree growth
- Development of a regional, on-line soil database and monolith soil archiving technique

Collaboration with the New York State Museum

- Soil samples will be archived by the Museum for future use by scientists.
- Cooperative will review applications for submission to the archive.
- Cooperative will maintain records of archived samples in publicly accessible database.
- Archive records will be directly linked to chemical data.

Participation in the Cooperative

- Open to any interested party.
- Information distributed through an email list.
- To be added to the list contact:

Greg Lawrence

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Collection of intact soil profiles for archival storage at the Dokuchaev Central Soil Museum, St. Petersburg, Russia, where soil archiving began in 1904.