



Soil Survey and Natural Resources Inventory

Historical Partners





Hugh Hammond Bennett

- Directed the pioneer National Erosion Reconnaissance Survey of 1934



Soil Survey





National Erosion Reconnaissance Survey 1934

- Estimated the degree of erosion caused by wind and water on the total land area of the United States.
- Six months after the survey was completed, Congress passed the Soil Conservation Act of 1935, which established the Soil Conservation Service, the forerunner of NRCS, and Bennett was named the agency's first chief.



History of Natural Resource Inventories

- In 1945 SCS published a report on U.S. soil and water conservation needs, which became the Conservation Needs Inventory (CNI) and prepared the ground for future inventories.
- In 1956, SCS began a cooperative endeavor to maintain and update the CNI.
- Data were collected from sample areas for the 1958 CNI.
- The 1967 CNI was an update of the 1958.



History

- By the mid-1970s, SCS had developed a way to link resource inventory data to soils data collected by the agency's nationwide soil mapping program, the National Cooperative Soil Survey.



History

- **The 1977 NRI gathered data on soil erosion, wetlands, prime farmland soils, and flood-prone areas, as well as soil capability, land use, and conservation treatment needs. It used nearly 70,000 randomly selected sample areas and was statistically reliable to the State level.**



Entering the Modern Era

- **The 1982 National Resources Inventory (NRI) was more comprehensive with respect to the kinds of data gathered and the number of sample areas covered. Its findings included the extent and distribution of highly erodible croplands throughout the Nation. It laid the groundwork for development of the Conservation Reserve Program and Conservation Compliance, Sodbuster, and Swampbuster conservation provisions of the Food Security Act of 1985.**

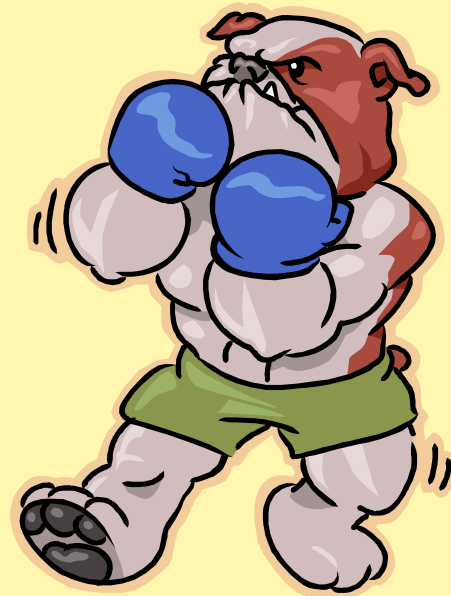


Trends Established

- 1982, 1987, 1992, 1997
- 15 year ***trends*** in land cover/use, erosion
- Primary source of natural resource data for Congress
- Used by State and Local Government to identify conservation needs, plan solutions and target funding



USLE vs. RUSLE





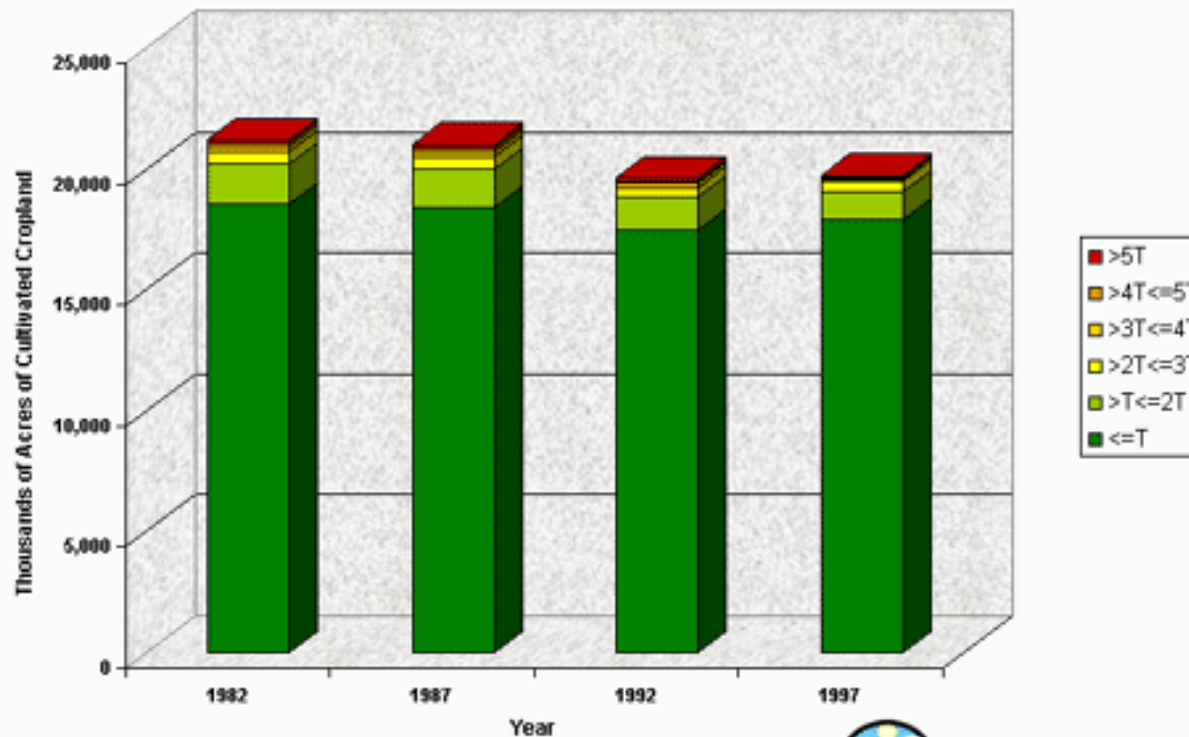
How are Data Supplied?

- Published summaries
- Special Reports
- Website
<http://www.mn.nrcs.usda.gov>
- Online analysis system (OASys97)
provides a fully relational, trending
database



Water Erosion

Minnesota Estimated Average Annual Sheet and Rill Erosion in Relation to T Value on Cultivated Cropland

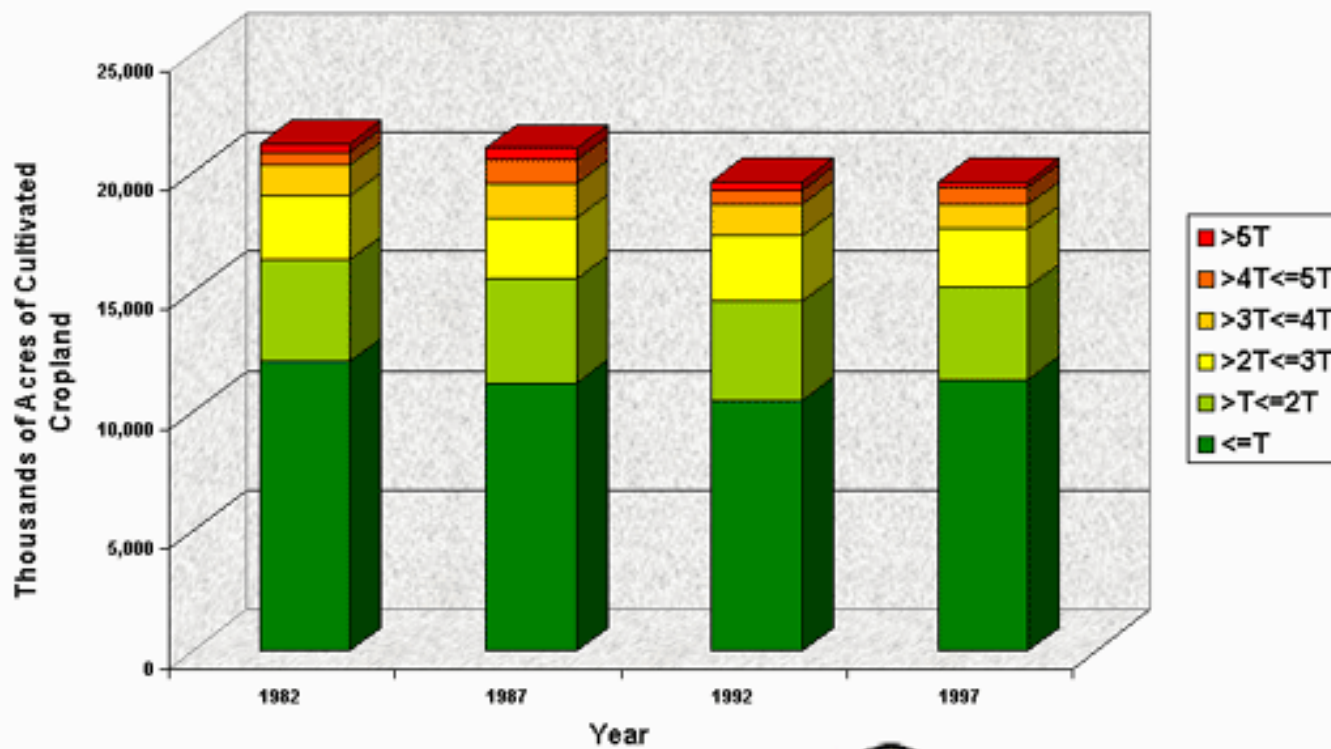


Source: USDA - Natural Resources Conservation Service
1997 National Resources Inventory (Revised)



Wind Erosion

**Minnesota Estimated Average Wind Erosion
in Relation to T Value on Cultivated Cropland**

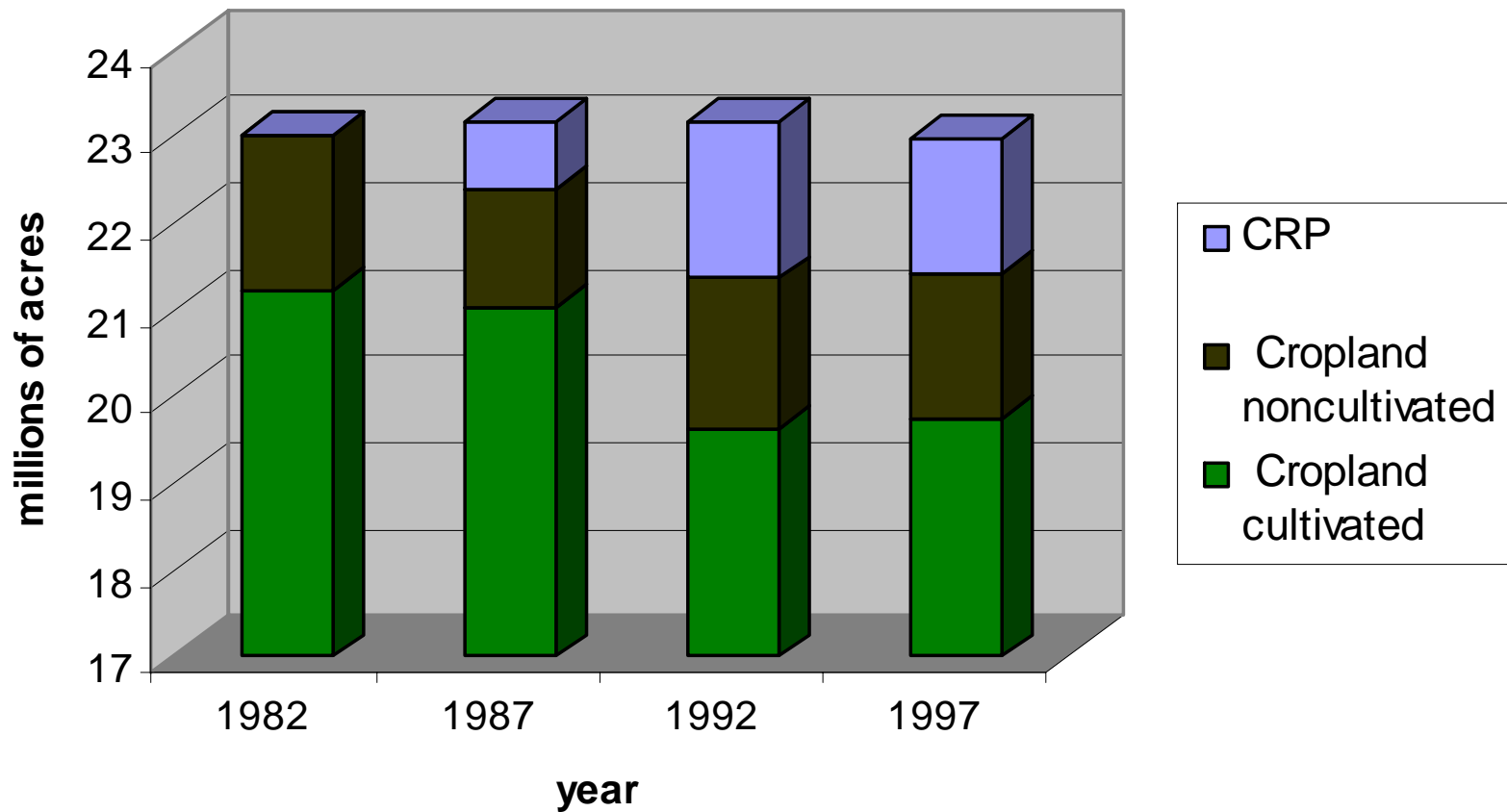


Source: USDA - Natural Resources
Conservation Service
1997 National Resources Inventory
(Revised)



Cropland

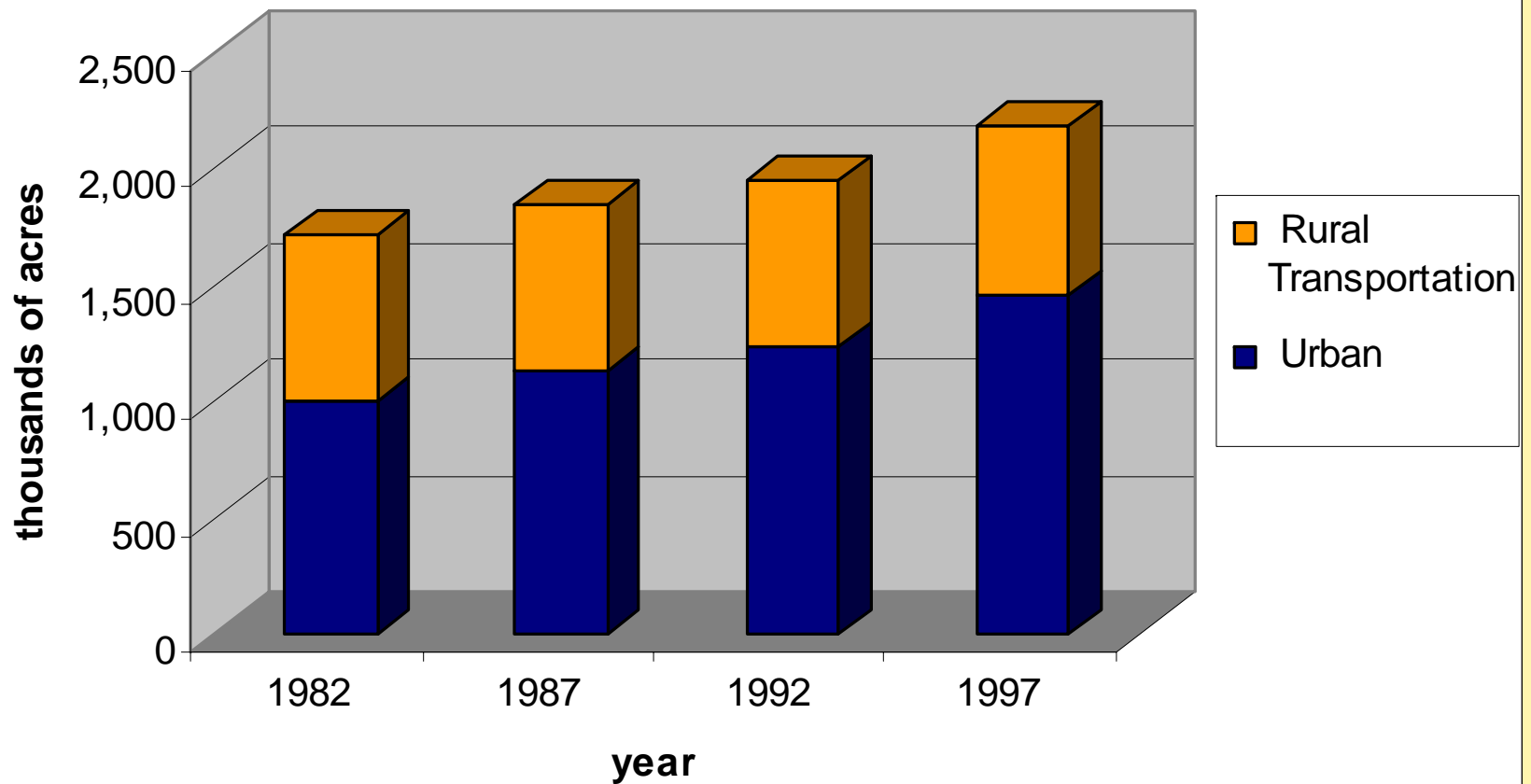
Changes in Minnesota Cropland





Developed Land

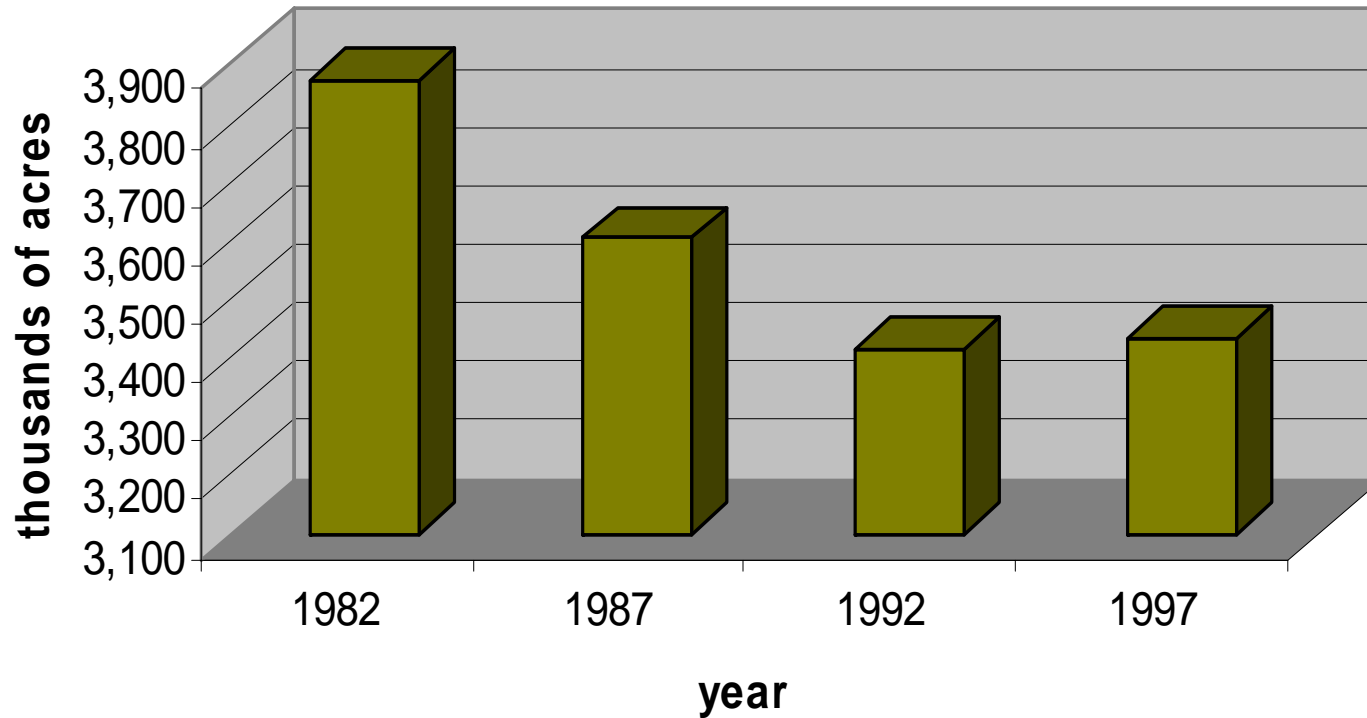
Changes in Minnesota Developed Land





Pastureland

Changes in Minnesota Pastureland





Forest land

Changes in Minnesota Forest land

