# CENTENNIAL ACCOMPLISHMENTS OF THE NEBRASKA COOPERATIVE SOIL SURVEY PUBLICATION PROGRAM

An example of the soil surveys published in the early 1900's and during the late 1900's is presented. Lists of soil surveys published during the past one hundred years is given in three different presentations for the various time frame of the state soil survey program.

## Overview of Nebraska Soil Surveys Published During the 1900-1999 Period

This section gives an overview of the excellent success the state cooperative soil survey program has had in the publication of soil surveys. These published reports have made the vast accumulated knowledge of prepared soil maps, data, and interpretations available to the general public. During the period 1900 through 1999, there were 186 Nebraska soil surveys published by the United States Department of Agriculture. In addition to these published soil surveys, numerous special soils reports were prepared for many users over the years.

A listing of all published soil surveys over this period of time shows that nearly all counties, except for six counties in the Nebraska Sandhills, have at least two published soil surveys. The counties in the Nebraska Sandhills with only one soil survey are Author, Grant, Hooker, Thomas, Logan, and McPherson. There are several older reconnaissance soil surveys consisting of large geographic areas or an aggregate of several counties. A few counties, such as Lancaster County have three published soil surveys. Most of the older soil surveys and several of the more recent surveys are out of print. Most of the soil surveys that are out of print are available in university libraries. The list of published soil surveys that follows this section shows the date each survey was published. The SSURGO digitizing project begun in the late 1900's will eventually provide a digitized soil survey for all Nebraska counties.

## General contents of published soil survey reports during the 1900-1950 period

Size of report is about 6 by 9 inches. The major sections varied somewhat from those in surveys done from the 1910's to the late 1930's.

The major sections of soil surveys published during the 1910's were as follows:

- --Description of the Area
- --Climate
- --Agriculture
- --Soils (general description of each of the map units shown on the soil map; no detailed soil profile descriptions; generally, 20 or fewer different soils mapped).
- --Folded colored soil map of the county attached to the written report.

These early reports were excellent in describing the general agriculture of the area, farming and ranching conditions and trends, and the physiography of the area.

The major sections of soil surveys published during the 1930's were as follows:

- --County Surveyed (similar to General Nature of recent reports)
- --Climate
- --Agriculture
- --Soil Survey Methods and Definitions
- --Soils and Crops (includes general soil description for each soil map unit; no detailed soil profile descriptions; commonly, 20 to 40 different soils mapped).
- --Classification of Soil Types According to Productivity
- --Morphology and Genesis of Soils
- --Summary (an excellent overview of the agricultural conditions, landscapes, geology, kinds of soils, and general suitability of soils for the common crops of the area).

The soil map included in the survey published from 1900 through the 1930's was one large colored map at a scale of 1 inch to 1 mile or a scale of 1:63,360. The soil map showed each different soil or groups of soils in color on a large map commonly 30 by 30 inches in size for a 16-township county, such a Polk County. This map is bound in the back of the report. The soil map is a line map with no aerial photography background.

The section "List of Soil Surveys Published During the First 50 Years of the Nebraska Cooperative Soil Survey Program" shows the date when each soil survey was published and the soil scientists who made the survey.

## General contents of published soil survey reports during the 1950-1999 period

The size of report is about 9 by 10 <sup>3</sup>/<sub>4</sub> inches. The major sections of the report are as follows:

- --How to Use This Soil Survey
- --Index to Map Units
- --General Nature of the County
- --General Soil May Units
- --Detailed Soil Map Units (Detailed profile soil descriptions given for each soil series in this section or the section on classification of the soils; generally, about 40 to 100 different soils mapped).
- --Use and Management of the Soils
- --Soil Properties
- --Classification of the Soils
- --Formation of the Soils
- --Glossary
- --Tables (Each soil survey contains about 15 to 20 different soil properties and interpretative tables).

The back of the report includes 1) a colored general soil map of the survey area, 2) a soil legend for the general soil map, 3) a conventional and special symbols legend, 4) a soil legend for the detailed soil maps, and 5) the detailed soil maps.

The soil maps have an aerial photography background and are generally 3.2 inches per mile or a scale of 1:20,000. Each map sheet at the 1:20,000 scale includes an area of 13<sup>1</sup>/<sub>2</sub> square miles or sections. Exceptions to the 1:20,000 scale are Pawnee County, at a 1:15,840 scale; Cherry County, at a 1:24,000 scale; Hooker County, at a 1:31,680 scale; and McPherson County, at a 1:31,680 scale.

The section on "List of Soil Surveys Published During the 1950-1999 era of the Nebraska Cooperative Soil Survey Program" provides the following kinds of information for each Nebraska soil survey: 1) date when field work was completed and date published, 2) soil scientists who did the field work, 3) number of map units, 4) number of soil series, 5) number of pages in report, 6) scale of general soil map and number of map units, 7) number of map sheets, and 8) scale of soil maps.



Example of a Soil Survey Report format prior to 1940. (Actual size of report is 6x9 inches)



Soil map of Rising City area in 1924. The older soil surveys were more general than the soil surveys made later in the 1960-1999 period. Scale of this map is about 1 inch to 1 mile.

## Soil survey of Butler County, Nebraska

United Status Department of Apriculture, Soil Conservation Service in cooperation with University of Nebraska, Conservation and Survey Division



Example of a Soil Survey report in format from 1960-1999. (Actual size of report is 9x10<sup>3</sup>/4 inches.)



Soil map of an area around Rising City on sheet number 26 of the Butler County Soil Survey. Scale of this map is about 3.2 inches to 1 mile. Rising City is the home of Wayne Vanek, one of the distinguished soil scientists making soil maps and interpreting Nebraska soils during the latter part of the 19<sup>th</sup> century.





Arthur County Soil Survey Field Review, 1973. L-R: Lou Buller, Mike Stout, Jim Culver, Dale Gengenbach, and Lester Sherfey.

L-R: Charles Hammond, Don Yost, Jim Culver, Bob Turner, and Carl Fox. Madison County Progress Field Review, 1979.



L-R: Cameron Loerch, Norm Helzer, unidentified person, and Jim Culver conducting Morrill County Progress Field Review, 1980.



L-R: Harvey Schultz, Larry Ragon, Vernon Seevers, Francis Belohavy, and Jim Culver during Hall County Field Review, 1978.

## List of All Nebraska Soil Surveys Published During 1900-1999

Soil surveys are being completed and published on a continuing schedule.

\**Out of Print: Not available for distribution but a reference copy may be available in university or other libraries.* 

	Clay 1981	Garden 1999
Adams 1923*	Colfax 1930*	Garfield 1938*
Adams 1974	Colfax 1981	Garfield 1988
Antelope 1921*	Cuming 1922*	Gosper 1938*
Antelope 1978	Cuming 1975	Gosper 1981
Arthur and Grant 1977	Custer 1926*	Grand Island Area 1903*
	Custer 1982	Grant (See Arthur and
Banner 1919*		Grant) 1977
Banner 1994	Dakota 1919*	Greeley 1937*
Blaine 1954*	Dakota 1976	Greeley 1993
Blaine 1993	Dawes 1915*	
Boone 1921*	Dawes 1977	Hall 1916*
Boone 1972*	Dawson 1922*	Hall 1962
Box Butte 1916*	Dawson 1978	Hamilton 1927*
Box Butte 1983	Deuel 1921*	Hamilton 1985
Boyd 1937*	Deuel 1965*	Harlan 1930*
Boyd 1979	Dixon 1929*	Harlan 1974
Brown 1938*	Dixon 1978	Hayes 1938*
Brown 1992	Dodge 1916*	Hayes 1982
Buffalo 1924*	Dodge 1979	Hitchcock 1930*
Buffalo 1974	Douglas 1913*	Hitchcock 1970*
Burt 1922*	Douglas and Sarpy 1975	Holt 1938*
Burt 1980	Dundy 1931*	Holt 1983
Butler 1924*	Dundy 1963*	Hooker 1964*
Butler 1982	Fillmore 1916*	Howard 1920*
	Fillmore 1986	Howard 1974
Cass 1913*	Fort Laramie Area 1916*	
Cass 1941*	Franklin 1926*	Jefferson 1921*
Cass 1984	Franklin 1978	Jefferson 1975
Cedar 1928*	Frontier 1939*	Johnson 1920*
Cedar 1985	Frontier 1978	Johnson 1986
Chase 1917*	Furnas 1930*	
Chase 1982	Furnas 1979	Kearney 1923*
Cherry 1956		Kearney 1984
Cheyenne 1918*	Gage 1914*	Kearney Area 1904*
Cheyenne 1997	Gage 1964	Keith 1926*
Clay 1927*	Garden 1924*	Keith 1995

Keya Paha 1937\* Keya Paha 1980 Kimball 1916\* Kimball 1962 Knox 1930\* Knox 1997 Lancaster 1906\* Lancaster 1948 Lancaster 1980 Lincoln 1926\* Lincoln 1978 Logan 1975 Loup 1937\* Loup 1991 Madison 1920\* Madison 1984 McPherson 1969\* Merrick 1922\* Merrick 1981 Morrill 1917\* Morrill 1985 Nance 1922\* Nance 1960\* Nemaha 1914\* Nemaha 1986 North Platte Area 1907\* Nuckolls 1925\* Nuckolls 1978 Otoe 1912\* Otoe 1950 Otoe 1982 Pawnee 1920\* Pawnee 1976 Perkins 1921\* Perkins 1991

Phelps 1917\* Phelps 1973 Pierce 1928\* Pierce 1976 Platte 1923\* Platte 1988 Polk 1915\* Polk 1974 Red Willow 1919\* Red Willow 1967 Richardson 1915\* Richardson 1974 Rock 1937\* Rock 1985 Saline 1928\* Saline 1991 Sarpy 1905\* Sarpy 1939\* Sarpy (See Douglas and Sarpy) 1975 Saunders 1913\* Saunders 1965\* Scotts Bluff 1913\* Scotts Bluff 1968 Seward 1914\* Seward 1974 Sheridan 1918\* Sheridan 1999 Sherman 1931\* Sherman 1990 Sioux 1919\* Sioux 1998 Stanton 1929\* Stanton 1982 Stanton Area 1903\*

Thayer 1927\* Thayer 1968 Thomas 1965\* Thurston 1914\* Thurston 1972 Valley 1932\* Valley 1985 Washington 1915\* Washington 1964\* Wayne 1917\* Wayne 1975 Webster 1923\* Webster 1974 Western Nebraska, Reconnaissance 1911\* Wheeler 1937\* Wheeler 1988

York 1928\* York 1977

## List of Soil Surveys Published During the First 50 Years of the Nebraska Cooperative Soil Survey Program

## ADAMS COUNTY, NE-1923

By: F.A. Hayes, U.S. Department of Agriculture D.F. Hyde, Nebraska Soil Survey

#### ANTELOPE COUNTY, NE - 1921

By: F.A. Hayes, U.S. Department of Agriculture H.C. Mortlock, M.H. Layton, H.E. Weakley and J.D. Westerman, Nebraska Soil Survey

### BANNER COUNTY, NE - 1919

By: F.A. Hayes, U.S. Department of Agriculture H.L. Bedell, Nebraska Soil Survey

## BLAINE COUNTY, NE – 1941

By: M.H. Layton, U.S. Department of Agriculture

#### BOONE COUNTY, NE – 1921

By: F.A. Hayes and L.S. Paine, U.S. Department of Agriculture H.C. Mortlock and M.H. Layton, Nebraska Soil Survey

## BOX BUTTE COUNTY, NE-1916

By: F.A. Hayes, Nebraska Soil Survey J.H. Agee, U.S. Department of Agriculture

#### BOYD COUNTY, NE – 1933

By: W.J. Moran and F.A. Haves, U.S. Department of Agriculture R.H. Lovald, Nebraska Soil Survey

#### BROWN COUNTY, NE – 1933

By: E.A.Nieschmidt, Nebraska Soil Survey F.A. Hayes and S.R. Bacon, U.S. Department of Agriculture

#### BUFFALO COUNTY, NE - 1924

By: F.A. Hayes, U.S. Department of Agriculture A.W. Huddleston and M.H. Layton, Nebraska Soil Survey

#### BURT COUNTY, NE - 1922

By: Louis A. Wolfanger and L.S. Paine,

U.S. Department of Agriculture

G.E. Condra and V.M.. Russom, Nebraska Soil Survey

#### BUTLER COUNTY, NE - 1924

By: A.W. Goke, U.S. Department. of Agriculture G.E. Bates, Nebraska Soil Survey

#### CASS COUNTY, NE – 1936

By: T.E. Beesley, U.S. Department of Agriculture M.M. Kuper, W.S. Gillarn and E.A. Nieschmidt, Nebraska Soil Survey

#### CEDAR COUNTY, NE-1928

By: R.C. Roberts, A.W. Goke and F.A. Hayes,U.S. Department of AgricultureW.H. Buckhannan. R. L. Gemmell, R.H. Lovald andE.A.Nieschmidt, Nebraska Soil Survey

CHASE COUNTY, NE-1917

By: R.F. Rogers, U.S. Department of Agriculture Louis A. Wolfanger, Nebraska Soil Survey

#### CHERRY COUNTY, NE-1940

By: M.H. Layton, U.S. Department of Agriculture C.R. Buzzard and H.E. Hoy, Conservation and Survey Division, UNL

## CHEYENNE COUNTY, NE - 1918

By: H.C. Mortlock, Louis A. Wolfanger and George W. Heam, U.S. Department of AgricultureL. Briton, Nebraska Soil Survey

#### CLAY COUNTY, NE-1927

By: R.C. Roberts, U.S. Department of Agriculture Ralph Gemmell, Nebraska Soil Survey

COLFAX COUNTY, NE – 1930

By: A.W. Goke, W.J. Moran and F.A. Hayes, U.S. Department of Agriculture

E. A. Nieschmidt, Nebraska Soil Survey

#### CUMING COUNTY, NE – 1922

By: L.S. Paine and F.A. Hayes, U.S. Department of Agriculture G.E. Condra and G.E. Bates, Nebraska Soil Survey

CUSTER COUNTY, NE – 1926

By: F.A. Hayes and M.H. Layton, U.S. Department of Agriculture E.A. Nieschmidt. C.H. Hayes. A.N. Huddleston and S.S. Diedrichs, Nebraska Soil Survey

#### DAKOTA COUNTY, NE-1919

By: F.A. Hayes, U.S. Department of Agriculture H.L. Bedell. Nebraska Soil Survey

DAWES COUNTY, NE - 1915

By: R.R. Bum, L. Vincent Davis and J.M. Snyder, U.S. Department of AgricultureF.A. Hayes and Thomas E. Kokjer, Nebraska Soil Survey

#### DAWSON COUNTY, NE - 1922

By: F.A. Hayes, U.S. Department of Agriculture G.E. Condra and M.H. Layton, Nebraska Soil Survey

#### DEUEL COUNTY, NE – 1921

By: Louis A. Wolfanger and A.W. Goke, U.S. Department of Agriculture H.E. Weakley, Nebraska Soil Survey

DIXON COUNTY, NE-1929

By: A.W. Goke, U.S. Department of Agriculture L.A. Brown, Nebraska Soil Survey

DODGE COUNTY, NE-1916

By: B.W. Til1man, U.S. Department of Agriculture H.C. Mortlock, Nebraska Soil Survey

#### DOUGLAS COUNTY, NE-1913

By: A.H. Meyer, E.H. Smies and T.M. Bushnell,

U.S. Department of Agriculture

R.R. Spafford, R.R. Burn and C.W. Smith, Nebraska Soil Survey

#### DUNDY COUNTY, NE – 1931

By: E.A. Nieschmidt and B.T. Abashkin. Nebraska Soil Survey F.A. Hayes and S. Rankin Bacon, U.S. Department of Agriculture

#### FILLMORE COUNTY, NE – 1916

By: A.H. Meyer, U.S. Department of Agriculture C.E. Collett and N.A. Bengtson, Nebraska Soil Survey

#### FRANKLIN COUNTY, NE - 1926

By: F.A Hayes and Louis A. Wolfanger, U.S. Department of Agriculture E.A. Nieschmidt, Nebraska Soil Survey

#### FRONTIER COUNTY, NE – 1935

By: S.R. Bacon, U.S. Department of Agriculture E.H. Tyner, W.L. Bruce, David Franzen and D.B. Dodson, Nebraska Soil Survey

FURNAS COUNTY, NE – 1930

By: L.A. Brown, Nebraska Soil Survey S.R. Bacon, U.S. Department of Agriculture

## GAGE COUNTY, NE - 1914

By: A.H. Meyer and R.R. Burn, U.S. Department of Agriculture N.P. Bengston, Nebraska Soil Survey

#### GARDEN COUNTY, NE-1924

By: Louis A. Wolfanger and A.W. Goke, U.S. Department of Agriculture H.E. Weakley and E.H. Strieter, Nebraska Soil Survey

#### GARFIELD COUNTY, NE - 1934

By: Basil Abaskin, E.A. Nieschmidt and R.H. Lovald, Nebraska Soil Survey F.A. Hayes, U. S. Department of Agriculture

GOSPER COUNTY, NE – 1934

By: W.J. Moran U.S. Department of Agriculture

#### **GREELEY COUNTY, NE – 1933**

By: S.R. Bacon and F.A. Hayes, U.S. Department of Agriculture E.A. Nieschmidt, Nebraska Soil Survey

#### HALL COUNTY, NE – 1916

By: J.O. Veatch, U.S. Department of Agriculture V.H. Seabury, Nebraska Soil Survey

#### HAMILTON COUNTY, NE - 1927

By: A.W. Goke, U.S. Department of Agriculture W.H. Buckhannan, Nebraska Soil Survey

#### HARLAN, COUNTY, NE – 1930

By: W.J. Moran, U.S. Department of Agriculture B.J. Abashkin, Nebraska Soil Survey

HAYES COUNTY, NE – 1934 By: L.A. Brown, Nebraska Soil Survey

#### HITCHCOCK COUNTY, NE - 1930

By: F.A. Hayes, W.J. Moran, S.R. Bacon and R.L. Gemmell, U.S. Department of AgricultureH. Otte, B.J. Abashkin and E.A. Nieschmidt, Nebraska Soil Survey

#### HOLT COUNTY, NE-1932

By: W.J. Moran, F.A. Hayes, W.D. Lee and S. Rankin Bacon, U.S. Department of Agriculture Basil Abaskin, R.L. Gemmell and R.H. Lovald, Nebraska Soil Survey

#### HOWARD COUNTY, NE – 1920

By: F.A. Hayes and L.S. Paine, U.S. Department of Agriculture D.L. Gross and O.M. Krueger, Nebraska Soil Survey

#### JEFFERSON COUNTY, NE – 1921

By: L.S. Paine and F.A. Hayes, U.S. Department of Agriculture G.E. Condra and O.M. Krueger, Nebraska Soil Survey

#### JOHNSON COUNTY, NE – 1920

By: H.L. Bedell, U.S. Department of Agriculture H.E. Engstrom, Nebraska Soil Survey

#### KEARNEY COUNTY, NE – 1923

By: M.H. Layton, A.N. Huddleston and G.E. Condra, Nebraska Soil Survey F.A. Hayes. U.S. Department of Agriculture

#### KEITH COUNTY, NE – 1926

By: M.H. Layton, U.S. Department of Agriculture W.H. Buckhannan, Nebraska Soil Survey

## KEYA PAHA COUNTY, NE - 1933

By: W.D. Lee, F.A. Hayes and S.R. Bacon,

U.S. Department of Agriculture

R.H. Lovald, Nebraska Soil Survey

## KIMBALL COUNTY, NE - 1916

By: A.H. Meyer, J.O. Veatch and B.W. Tillman,

U.S. Department of Agriculture.

F.A. Hayes, H.C. Mortlock and C.E. Collett, Nebraska Soil Survey

#### KNOX COUNTY, NE – 1930

By: F.A. Hayes, U.S. Department of AgricultureE.A. Nieschmidt, L.A. Brown, B.J. Abashkin, R.L. Gemmell andH. Otte, Nebraska Soil Survey

#### LANCASTER COUNTY, NE - 1938

By: T.E. Beesley and W.J. Moran, U.S. Department of Agricilture M.M. Kuper, W.S. Gilliam, T.K. Popov, Boris Bulatkin and W.C. Bourne, Nebraska Soil Survey

#### LINCOLN COUNTY, NE – 1926

By: AW. Goke, U.S. Department of Agriculture E.A. Nieschmidt and R.C. Roberts, Nebraska Soil Survey

#### LOUP COUNTY, NE - 1934

By: Basil Abaskin., Nebraska Soil Survey F.A. Hayes, U.S. Department of Agriculture

#### MADISON COUNTY, NE-1920

By: F.A. Hayes and L.S. Paine, U.S. Department of Agriculture D.L. Gross and O.M. Krueger, Nebraska Soil Survey

#### MERRICK COUNTY, NE - 19212

By: F.A. Hayes, U.S. Department of Agriculture A.N. Huddleston, M.H. Layton, G.E. Bates and H.L. Bedell, Nebraska Soil Survey

#### MORRILL COUNTY, NE – 1917

By: F.A. Hayes and H.W. Hawker., U.S. Department of Agriculture M.D. Davis and V.H. Seabury, Nebraska Soil Survey

#### NANCE COUNTY, NE - 1922

By: F.A. Hayes, U.S. Department of Agriculture G.E. Condra, H.C. Mortlock, H.L. Bedell and G.E. Bates, Nebraska Soil Survey

#### NEMAHA COUNTY, NE - 1914

By: A.H. Meyer, M.W. Beck, E.H. Smies and R.R. Burn,

U.S. Department of Agriculture

L.T. Skinner and W.A. Rockie, Nebraska Soil Survey

## NUCKOLLS COUNTY, NE – 1925

By: Louis A. Wolfanger and R.D. Wood, U.S. Department of Agriculture A.N. Huddleston, Nebraska Soil Survey

#### OTOE COUNTY, NE – 1940

By: T.E. Beesley, W.J. Moran, U.S. Department of Agriculture C.E. Pilcher and C.R. Buzzard, Nebraska Soil Survey

#### PAWNEE COUNTY, NE - 1920

By: H.L. Bedell and F.A. Hayes, U.S. Department of Agriculture H.E. Engstrom, Nebraska Soil Survey

#### PERKINS COUNTY, NE – 1921

By: Louis A. Wolfanger and V.M. Russom, U.S. Department of Agriculture. E.H. Strieter, Nebraska Soil Survey

#### PHELPS COUNTY, NE – 1917

By: BW. Tillman, U.S. Department of Agriculture B.F. Hensel, Nebraska Soil Survey

#### PIERCE COUNTY, NE-1928

By: A.W. Goke, U.S. Department of Agriculture W.H. Buckhannan, Nebraska Soil Survey

#### PLATTE COUNTY, NE-1923

By: L.S. Paine and F.A. Hayes, U.S. Department of Agriculture, G.E. Bates, Nebraska Soil Survey

#### POLK COUNTY, NE – 1915

By: J.M. Snyder, U. S. Department of Agriculture Thomas E. Kokjer, Nebraska. Soil Survey

## RED WILLOW COUNTY, NE-1919

By: Louis A. Wolfanger, U.S. Department of Agriculture A.W. Goke, Nebraska Soil Survey

## RICHARDSON COUNTY, NE-1915

By: A.H. Meyer, U.S. Department of Agriculture Paul H. Stewart and CW. Watson, Nebraska Soil Survey

#### ROCK COUNTY, NE – 1932

By: W.D. Lee, F.A. Hayes and S.R. Bacon,

U.S. Department of Agriculture

R.L. Gemmell, Nebraska Soil Survey

#### SALINE COUNTY, NE – 1928

By: F.A. Hayes and R.C. Roberts, U.S. Department of Agriculture E.A. Nieschmidt, Nebraska Soil Survey

#### SARPY COUNTY, NE-1905

- By: A.E. Kocher and Lewis A. Hurst, U.S. Department of Agriculture 1935
- By: T.E. Beesley U.S. Department of Agriculture T.K. Popov, Nebraska Soil Survey

## SAUNDERS COUNTY, NE - 1913

By: A.H. Meyer and T.M. Bushnell, U.S. Department of Agriculture R.R. Spafford, R.R. Burn and R.J. Scarborough, Nebraska Soil Survey

SCOTTS BLUFF COUNTY, NE - 1913

By: LT. Skinner, Nebraska Soil Survey M.W. Beck, U.S. Department of Agriculture

#### SEWARD COUNTY, NE – 1914

By: A.H. Meyer and E.H. Smies, U.S. Department of Agriculture, L.T. Skinner and W.A. Rockie, Nebraska Soil Survey

#### SHERIDAN, COUNTY, NE - 1918

By: F.A. Hayes, Louis A. Wolfanger, U.S. Department of Agriculture H.L. Bedell, L. Briton, S.C.H. Taylor and F.M. Deutsch, Nebraska Soil Survey

#### SHERMAN COUNTY, NE - 1931

By: L.A. Brown and R.L. Gemmell, Nebraska Soil Survey F.A. Hayes, U. S. Department of Agriculture

#### SIOUX COUNTY, NE – 1919

By: W.A. Rockie and C.E. Deardorff, U.S. Department of Agriculture L.H. Britton and L.S. Paine, Nebraska Soil Survey

#### STANTON COUNTY, NE - 1929

By: F.A. Hayes and W.J. Moran, U.S. Department of Agriculture R.L. Gemmell, Nebraska Soil Survey

## THAYER COUNTY, NE - 1927

By: E.A. Nieschmidt, R.H. Lovald and R.L. Gemmell,

- U.S. Department of Agriculture
- R.C. Roberts, Nebraska Soil Survey

#### THURSTON COUNTY, NE - 1914

By: A.H. Meyer and M.W. Beck, U.S. Department of Agriculture W.A. Rockie, Nebraska Soil Survey

## VALLEY COUNTY, NE – 1932

By: R.L. Gemmell, EA. Nieschmidt and R.H. Lovald, Nebraska Soil SurveyF.A. Hayes and S. Rankin Bacon, U.S. Department of Agriculture

WASHINGTON COUNTY, NE-1915

By: L. Vincent Davis, U.S. Department of Agriculture H.C. Mortlock, Nebraska Soil Survey

WAYNE COUNTY, NE-1917

By: B.W. Tillman, U.S. Department of Agriculture B.F. Hensel, Nebraska Soil Survey

WEBSTER COUNTY, NE - 1923

By: Louis A. Wolfanger, U.S. Department of Agriculture R.D. Wood, Nebraska Soil Survey

WHEELER COUNTY, NE-1933

By: Basil Abaskin, Nebraska Soil Survey F.A. Hayes, U.S. Department of Agriculture

YORK COUNTY, NE - 1928

By: F.A. Hayes and A.W. Goke, U.S. Department of Agriculture



L-R: Monte Babcock and Don Kerl mapping soils in Butler County, 1978.



Larry Ragon describing soils on Cheyenne County sampling project in 1987.



Harry Paden (L) and Herb Kollmorgan observing soils in Franklin County, 1972.



L-R: Jim Culver, John Brubaker, and Howard Sautter examining soils in Otoe County, 1975.

## List of Soil Surveys Published During the 1950-1999 Era of the Nebraska Cooperative Soil Survey Program

## ADAMS COUNTY, NE

Started in 1961, the fieldwork was completed 8 years later and the survey report was published 5 years after that. Work on the survey was done by: Larry G. Ragon, Soil Conservation Service. The survey recorded 24 series and 53 map units in an area of 359,680 acres. The report consists of 78 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 9 units. The detailed soil map consists of 43 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **ANTELOPE COUNTY, NE**

Started in 1967, the fieldwork was completed 6 years later and the survey report was published 5 years after that. Work on the survey was done by: Charles Mahnke, Roger Hammer, Charles Hammond, and Ronald Shulte, Soil Conservation Service. The survey recorded 31 series and 87 map units in an area of 545,920 acres. The report consists of 128 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 9 units. The detailed soil map consists of 66 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## ARTHUR AND GRANT COUNTIES, NE

Started in 1968, the fieldwork was completed 5 years later and the survey report was published 4 years after that. Work on the survey was done by: Donald A. Yost and Lester E. Sherfey, Soil Conservation Service. The survey recorded 8 series and 18 map units in an area of 450,624 acres. The report consists of 50 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 3 units. The detailed soil map consists of 122 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **BANNER COUNTY, NE**

Major fieldwork for this survey was completed in 1987, and the survey report was published 7 years later. Work on the survey was done by: Wayne J. Vanek, Gary L. McCoy, Norman P. Helzer, J. Cameron Loerch, and Craig R. Derickson, Soil Conservation Service. The survey recorded 30 series and 77 map units in an area of 478,208 acres. The report consists of 232 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 13 units. The detailed soil map consists of 56 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **BLAINE COUNTY, NE**

Major fieldwork for this survey was completed in 1987, and the survey report was published 6 years later. Work on the survey was done by: Daniel R. Shurtliff and Vernon C. Seevers, Soil Conservation Service, and Francis V. Belohlavy, Bruce C. Evans, and Mark S. Kuzila, University of Nebraska, Conservation and Survey Division. The survey recorded 17 series and 41 map units in an area of 458,131 acres. The report consists of 174 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 8 units. The detailed soil map consists if 56 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **BOONE COUNTY, NE**

Started in 1959, the fieldwork was completed 4 years later and the survey report was published 9 years after that. Work on the survey was done by: Charles L. Hammond, Charles F. Mahnke, Lawrence Brown, Ronald Schulte, and Walter Russell, Soil Conservation Service. The survey recorded 20 series and 53 map units in an area of 437,120 acres. The report consists of 79 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 8 units. The detailed soil map consists of 54 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **BOX BUTTE COUNTY, NE**

Major fieldwork for this survey was completed in 1979, and the survey report was published 4 years later. Work on the survey was done by: Charles F. Mahnke, Dan R. Shurtliff, Rita Dallavalle, Norman P. Helzer, Michael Fausch, and Larry G. Ragon, Soil Conservation Service, and David R. Hoover, Jeffrey F. Worm, and Gayle Wentling, University of Nebraska. The survey recorded 32 series and 82 map units in an area of 681,728 acres. The report consists of 226 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 11 units. The detailed soil map consists of 81 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **BOYD COUNTY, NE**

Started in 1958, the fieldwork was completed 17 years later and the survey report was published 4 years after that. Work on the survey was done by: Orville Indra, Soil Conservation Service. The survey recorded 37 series and 69 map units in an area of 350,720 acres. The report consists of 173 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 11 units. The detailed soil map consists of 47 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **BROWN COUNTY, NE**

Major fieldwork for this survey was completed in 1986, and the survey report was published 6 years later. Work on the survey was done by: Arthur L. Voigtlander, Roger R. Hammer, and Richard R. Zink, Soil Conservation Service, and Monte K. Babcock, Bruce C. Evans, Michael D. Patterson, and Harvey Schultz, University of Nebraska, Conservation and Survey Division. The survey recorded 30 series and 73 map units in an area of 781,728 acres. The report consists of 272 pages. A general soil map in color at a scale of 1:253,440 for he county as a whole has 11 units. The detailed soil map consists of 97 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **BUFFALO COUNTY, NE**

Started in 1957, the fieldwork was completed 10 years later and the survey report was published 7 years after that. Work on the survey was done by: Louie L. Buller, Robert S. Pollock, Rafael A. Boccheciamp, Charles L. Hammond, and Hal Hill, Soil Conservation Service, and John A. Elder, University of Nebraska. The survey recorded 28 series and 74 map units in an area of 609,280 acres. The report consists of 86 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 10 units. The detailed soil map consists of 76 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **BURT COUNTY, NE**

Started in 1973, the fieldwork was completed 4 years later and the survey report was published 3 years after that. Work on the survey was done by: Dean W. DaMoude and Mark E. Willoughby, Soil Conservation Service, and Douglas A. Witte, Michael D. Oja, David G. Roberts, and Charles E. Morris, University of Nebraska. The survey recorded 34 series and 67 map units in an area of 308,928 acres. The report consists of 165 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 7 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **BUTLER COUNTY, NE**

Started in 1974, the fieldwork was completed 5 years later and the survey report was published 3 years after that. Work on the survey was done by: Donald E. Kerl, Soil Conservation Service, and Monte Babcock and Gary Halstead, University of Nebraska. The survey recorded 38 series and 78 map units in an area of 372,480 acres. The report consists of 198 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 13 units. The detailed soil map consists of 47 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## CASS COUNTY, NE

Major fieldwork for this survey was completed in 1980, and the survey report was published 4 years later. Work on the survey was done by: Glenn A. Borchers and Doug Witte, Soil Conservation Service, and Steve Hartung and John D. Overing, Conservation and Survey Division, University of Nebraska. The survey recorded 23 series and 51 map units in an area of 360,960 acres. The report consists of 137 pages. A general soil map in color at a scale of 1:190,080 for he county as a whole has 10 units. The detailed soil map consists of 48 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **CEDAR COUNTY, NE**

Major fieldwork for this survey was completed in 1981, and the survey report was published 4 years later. Work on the survey was done by: E. Larry Milliron and Norman L. Slama, Soil Conservation Service, and Gary A. Halstead, William C. Markley, Charles M. Morris, Dennis J. Hansen, and John D. Overing, University of Nebraska. The survey recorded 35 series and 64 map units in an area of 473,625 acres. The report consists of 206 pages. A general soil map in color at a scale of 1:190,080 for he county as a whole has 10 units. The detailed soil map consists of 60 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **CHASE COUNTY, NE**

Started in 1974, the fieldwork was completed 6 years later and the survey report was published two years after that. Work on the survey was done by: Harry Paden, Soil Conservation Service, and Dave Lodges and Randall Staples, University of Nebraska. The survey recorded 34 series and 68 map units in an area of 572,160 acres. The report consists of 187 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 9 units. The detailed soil map consists of 68 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **CHERRY COUNTY, NE**

Major fieldwork for this survey was completed in 1995. Work on the survey was done by: Roger R. Hammer, John F. Beck, Douglas R. Berka, David R. Hoover, Orville Indra, Casey W. Latta, Charles F. Mahnke, Gary L. McCoy, Larry G. Ragon, Becky L. Scholl, Vernon C. Seevers, David N. Stalder, Daniel R. Shurtliff, David A. Vyain, Frank E. Wahl, and Mark E. Willoughby, Natural Resources Conservation Service, and James L. Husbands, William C. Markley, and Phillip D. Young, University of Nebraska, Conservation and Survey Division. The survey recorded 46 series and 119 map units in an area of 3,845,197 acres. A general soil map for the county as a whole has 24 units. The detailed soil map consists of 322 sheets on a photomosaic base at a scale of 2.64 inches per mile, or 1:24,000.

## CHEYENNE COUNTY, NE

Major fieldwork for this survey was completed in 1987, and the survey was published 10 years later. Work on the survey was done by: Glenn A. Borchers, Natural Resources Conservation Service, and Steve Hartung, University of Nebraska, Conservation and Survey Division. The survey recorded 29 series and 66 map units in an area of 765,498 acres. The report consists of 231 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 12 units. The detailed soil map consists of 90 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## CLAY COUNTY, NE

Started in 1974, the fieldwork was completed 4 years later and the survey report was published 3 years after that. Work on the survey was done by: Roger R. Hammer and Larry G. Ragon, Soil Conservation Service, and Arthur A. Buechle, University of Nebraska. The survey recorded 14 series and 34 map units in an area of 364,800 acres. The report consists of 125 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 9 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## COLFAX COUNTY, NE

Started in 1975, the fieldwork was completed 3 years later and the survey report was published 4 years after that. Work on the survey was done by: Paul A. Bartlett, Soil Conservation Service, and William H. Saeger and Scott K. Huso, University of Nebraska. The survey recorded 24 series and 51 map units in an area of 259,840 acres. The report consists of 151 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 12 units. The detailed soil map consists of 32 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **CUMING COUNTY, NE**

Started in 1965, the fieldwork was completed 7 years later and the survey report was published 3 years after that. Work on the survey was done by: Dean W. DaMoude, Donald Kerl, and Norman L. Slama, Soil Conservation Service. The survey recorded 18 series and 40 map units in an area of 365,440 acres. The report consists of 69 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 5 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## CUSTER COUNTY, NE

Started in 1967, the fieldwork was completed 12 years later and the survey report was published 3 years after that. Work on the survey was done by: Jay R. Wilson, Wayne Vanek, Jan Carlson, Bryon Koepke, Richard Zink, Gilbert A. Bowman, Larry Brown, Lester Sherfey, and Charles C. Cotter, Soil Conservation Service, and Harvey Schultz, Lower Loup Natural Resource District. The survey recorded 27 series and 71 map units in an area of 1,636,864 acres. The report consists of 166 pages. A general soil map in color at a scale of 1:316,800 for the county as a whole has 14 units. The detailed soil map consists of 194 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## DAKOTA COUNTY, NE

Started in 1967, the fieldwork was completed 4 years later and the survey report was published 5 years after that. Work on the survey was done by: Norman L. Slama, Donald E. Kerl, and Dean W. DaMoude, Soil Conservation Service. The survey recorded 25 series and 61 map units in an area of 163,456 acres. The report consists of 91 pages. A general soil map in color at a scale of 1:126,720 for the county as a whole has 8 units. The detailed soil map consists of 24 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **DAWES COUNTY, NE**

Started in 1956, the fieldwork was completed 17 years later and the survey report was published 4 years after that. Work on the survey was done by: Larry G. Ragon, Larry D. Worth, Max A. Sherwood, and Michael L. Fausch, Soil Conservation Service. The survey recorded 35 series and 93 map units in an area of 888,960 acres. The report consists of 132 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 12 units. The detailed soil map consists of 106 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **DAWSON COUNTY, NE**

Started in 1968, the fieldwork was completed 5 years later and the survey report was published 5 years after that. Work on the survey was done by: Lawrence E. Brown and Louie L. Buller, Soil Conservation Service, and Frank E. Wahl, Central Platte Natural Resource District. The survey recorded 23 series and 66 map units in an area of 624,256 acres. The report consists of 100 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 9 units. The detailed soil map consists of 79 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **DEUEL COUNTY, NE**

Major fieldwork for this survey was completed in 1960, and the survey report was published 5 years later. Work on the survey was done by: Edward H. Sautter, Ross D. Greenawalt, F. Dwight Bertelson, John E. Willard, Rudolph Ulrich, and Robert Olson, Soil Conservation Service. The survey recorded 26 series and 64 map units in an area of 278,400 acres. The report consists of 96 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 7 units. The detailed soil map consists of 37 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **DIXON COUNTY, NE**

Started in 1971, the fieldwork was completed 3 years later and the survey report was published 4 years after that. Work on the survey was done by: Norman L. Slama and Donald E. Kerl, Soil Conservation Service. The survey recorded 25 series and 58 map units in an area of 304,000 acres. The report consists of 114 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 7 units. The detailed soil map consists of 40 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **DODGE COUNTY, NE**

Started in 1961, the fieldwork was completed 14 years later and the survey report was published 4 years after that. Work on the survey was done by: Paul A. Bartlett, Soil Conservation Service, and Bryon E. Koepke, University of Nebraska. The survey recorded 24 series and 55 map units in an area of 337,984 acres. The report consists of 141 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 7 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **DOUGLAS AND SARPY COUNTIES, NE**

Started in 1963, the fieldwork was completed 6 years later and the survey report was published 6 years after that. Work on the survey in Douglas County was done by: Paul A. Bartlett, Soil Conservation Service. Work on the survey in Sarpy County was done by: Paul A. Barlett, Kenneth Good, and Howard Sautter, Soil Conservation Service. The survey recorded 25 series and 66 map units in Douglas County in an area of 214,208 acres, and in Sarpy County in an area of 152,704 acres. The report consists of 79 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 51 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **DUNDY COUNTY, NE**

Major fieldwork for this survey was completed in 1959, and the survey report was published 4 years later. Work on the survey was done by: Howard E. Sautter, Norman W. Huber, Allen D. Kolbo, Robert L. Lebruska, and Robert L. Cunningham, Soil Conservation Service. The survey recorded 24 series and 61 map units in an area of 589,440 acres. The report consists of 86 pages. A general soil map in color at a scale of 1:167,270 for the county as a whole has 7 units. The detailed soil map consists of 56 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **FILLMORE COUNTY, NE**

Major fieldwork for this survey was completed in 1983, and the survey report was published 3 years later. Work on the survey was done by: Roger R. Hammer and Robert S. Pollock, Soil Conservation Service, and Arthur A. Buechle, Michael W. Reardon and James L. Husbands, Conservation and Survey Division, University of Nebraska. The survey recorded 13 series and 36 map units in an area of 368,928 acres. The report consists of 138 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 7 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### FRANKLIN COUNTY, NE

Started in 1966, the fieldwork was completed 7 years later and the survey report was published 5 years after that. Work on the survey was done by: Harry E. Paden, Soil Conservation Service. The survey recorded 25 series and 51 map units in an area of 369,920 acres. The report consists of 95 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## FRONTIER COUNTY, NE

Started in 1964, the fieldwork was completed 9 years later and the survey report was published 5 years after that. Work on the survey was done by: Ronald R. Hoppes, Norman W. Huber, Soil Conservation Service. The survey recorded 11 series and 32 map units in an area of 618,240 acres. The report consists of 65 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 5 units. The detailed soil map consists of 73 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **FURNAS COUNTY, NE**

Started in 1967, the fieldwork was completed 7 years later and the survey report was published 5 years after that. Work on the survey was done by: Duane L. Rieke, Donald A. Yost, James R. Culver, John I. Brubacher, Ronald R. Hoppes, Gilbert L. Bowman, and Lawrence E. Brown, Soil Conservation Service, and Frank E. Wahl, Lower Republican Natural Resources District. The survey recorded 17 series and 34 map units in an area of 462,080 acres. The report consists of 108 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 5 units. The detailed soil map consists of 56 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### GAGE COUNTY, NE

Major fieldwork for this survey was completed in 1959, and the survey report was published 5 years later. Work on the survey was done by: Thomas E. Beesley, Howard E. Sautter, Richard K. Jackson, Robert Jordan, Warren Fairchild, and Lyle Davis, Soil Conservation Service. The survey recorded 24 series and 60 map units in an area of 549,120 acres. The report consists of 76 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 5 units. The detailed soil map consists of 48 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### GARDEN COUNTY, NE

Major fieldwork for this survey was completed in 1993. Work on the survey was done by: Jay R. Wilson, A. Tyler Labenz, Renee D. Gross, Glenn A. Borchers, Steven A. Scheinost, Charles F. Mahnke, Daniel R. Shurtliff, David R. Hoover, Arthur Voitlander, and Alan J. Stuebe, Soil Conservation Service, and Randy Kowalski, Stephen L. Hartung and, Neal B. Stolpe, University of Nebraska, Conservation and Survey Division. The survey recorded 38 series and 66 map units in an area of 1,107,584 acres. A general soil map for the county as a whole has 14 units. The detailed soil map consists of 132 sheets on a photomosaic base at a scale of 3.17 inches per mile, or 1:20,000.

#### GARFIELD COUNTY, NE

Major fieldwork for this survey was completed in 1983, and the survey report was published 5 years later. Work on the survey was done by: Daniel R. Shurtliff, Larry G. Ragon, and Vernon C. Seevers, Soil Conservation Service, and Francis V. Belohlavy, University of Nebraska, Conservation and Survey Division. The survey recorded 20 series and 49 map units in an area of 365,703 acres. The report consists of 182 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 11 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **GOSPER COUNTY, NE**

Started in 1974, the fieldwork was completed 4 years later and the survey report was published 3 years after that. Work on the survey was done by: Frank E. Wahl, Soil Conservation Service. The survey recorded 14 series and 33 map units in an area of 295,604 acres. The report consists of 123 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 8 units. The detailed soil map consists of 35 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **GRANT COUNTY, NE**

(See Arthur County)

## **GREELEY COUNTY, NE**

Major fieldwork for this survey was completed in 1986, and the survey report was published 7 years later. Work on the survey was done by: Jay R. Wilson, Soil Conservation Service, and Francis V. Belohlavy, John Beck, Robert S. Ohm, and William C. Markley, University of Nebraska, Conservation and Survey Division. The survey recorded 23 series and 51 map units in an area of 365,063 acres. The report consists of 170 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 9 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## HALL COUNTY, NE

Major fieldwork for this survey was completed in 1957, and the survey report was published 5 years later. Work on the survey was done by: Donald A. Yost, Harry E. Paden, Franciso Matanzo, Frederick L. Bean, Hal L. Hill and Robert S. Pollock, Soil Conservation Service. The survey recorded 29 series and 90 map units in an area of 345,000 acres. The report consists of 141 pages. A general soil map in color at a scale of 1.68 inches per 4 miles for the county as a whole has 11 units. The detailed soil map consists of 32 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## HAMILTON COUNTY, NE

Started in 1977, the fieldwork was completed 4 years later and the survey report was published 4 years after that. Work on the survey was done by: Wayne Vanek and Robert S. Pollock, Soil Conservation Service, and Ted Pickering and Charles Morris, University of Nebraska, Conservation and Survey Division. The survey recorded 21 series and 53 map units in an area of 349,760 acres. The report consists of 139 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 9 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## HARLAN COUNTY, NE

Started in 1940, the fieldwork was completed 10 years later and updated in 1967. The survey report was published in 1974. Work on the survey was done by: Lloyd E. Mitchell, Gilbert Bowman, Donald A. Yost, Merrit Plantz, Maurice Miller, and John Willard, Soil Conservation Service. The survey recorded 17 series and 32 map units in an area of 354,560 acres. The report consists of 65 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 4 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## HAYES COUNTY, NE

Started in 1974, the fieldwork was completed 6 years later and the survey report was published two years after that. Work on the survey was done by: Steven A. Scheinost, and Ronald R. Hoppes, Soil Conservation Service. The survey recorded 16 series and 38 map units in an area of 455,040 acres. The report consists of 112 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 5 units. The detailed soil map consists of 56 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## HITCHCOCK COUNTY, NE

Started in 1960, the fieldwork was completed 4 years later and the survey report was published 6 years after that. Work on the survey was done by: Ronald R. Hoppes, Norman W. Huber, Howard E. Sautter, and Max A. Sherwood, Soil Conservation Service. The survey recorded 18 series and 44 map units in an area of 462,080 acres. The report consists of 50 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 5 units. The detailed soil map consists of 60 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## HOLT COUNTY, NE

Started in 1973, the fieldwork was completed 7 years later and the survey report was published 3 years after that. Work on the survey was done by: Larry G. Ragon, Vernon C. Seevers, and Orville Indra, Soil Conservation Service, and Francis V. Belohlavy, Stephen J. Lobaugh, Jan Carlson, and Harvey Schultz, University of Nebraska, Conservation and Survey Division. The survey recorded 45 series and 108 map units in an area of 1,539,264 acres. The report consists of 307 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 16 units. The detailed soil map consists of 101 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## HOOKER COUNTY, NE

Major fieldwork for this survey was completed in 1960, and the survey report was published 4 years later. Work on the survey was done by: Merritt A. Plantz and Daniel L. Merkel, Soil Conservation Service. The survey recorded 6 series and 15 map units in an area of approximately 461,000 acres. The report consists of 41 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 25 sheets on a photomosaic base at a scale of 2 inches per mile, or 1:31,680.

## HOWARD COUNTY, NE

Started in 1962, the fieldwork was completed 5 years later and the survey report was published 7 years after that. Work on the survey was done by: Charles F. Mahnke, Charles L. Hammond, and Lawrence E. Brown, Soil Conservation Service. The survey recorded 31 series and 66 map units in an area of 362,240 acres. The report consists of 89 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 9 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## JEFFERSON COUNTY, NE

Started in 1963, the fieldwork was completed 5 years later and the survey report was published 7 years after that. Work on the survey was done by: Robert S. Pollock and Lyle L. Davis, Soil Conservation Service. The survey recorded 18 series and 60 map units in an area of 369,280 acres. The report consists of 73 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 7 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## JOHNSON COUNTY, NE

Major fieldwork for this survey was completed in 1983, and the survey report was published 3 years later. Work on the survey was done by: Howard E. Sautter, Soil Conservation Service, and Donald E. Ulrich, University of Nebraska, Conservation and Survey Department. The survey recorded 19 series and 30 map units in an area of 241,101 acres. The report consists of 139 pages. A general soil map on color at a scale of 1:190,080 for the county as a whole has 3 units. The detailed soil map consists of 30 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **KEARNEY COUNTY, NE**

Major fieldwork for this survey was completed in 1981, and the survey report was published 3 years later. Work on the survey was done by: Frank Wahl, Jay Wilson, and Steve Scheinost, Soil Conservation Service. The survey recorded 26 series and 46 map units in an area of 327,680 acres. The report consists of 157 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 41 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### KEITH COUNTY, NE

Major fieldwork for this survey was completed in 1988, and the survey report was published 7 years later. Work on the survey was done by: Steven A. Scheinost, and technical assistance by Norman P. Helzer, both Natural Resources Conservation Service, and Mark S. Kuzila, University of Nebraska, Conservation and Survey Division. The survey recorded 32 series and 59 map units in an area of 710,284 acres. The report consists of 205 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 11 units. The detailed soil map consists of 83 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## KEYA PAHA COUNTY, NE

Started in 1969, the fieldwork was completed 7 years later and the survey report was published 4 years after that. Work on the survey was done by: Merrit Plantz and Richard Zink, Soil Conservation Service. The survey recorded 37 series and 81 map units in an area of

491,300 acres. The report consists of 224 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 14 units. The detailed soil map consists of 62 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## KIMBALL COUNTY, NE

Major fieldwork for this survey was completed in 1957, and the survey report was published 5 years later. Work on the survey was done by: Lawrence F. Clocker, Enis Alldredge, Dennis L. Brown, Charles C. Cotter, Kenneth Good, Max A. Sherwood, and Richard K. Jackson, Soil Conservation Service. The survey recorded 17 series and 68 map units in an area of 609,920 acres. The report consists of 74 pages. A general soil map in color at a scale of 1.45 inches per 4 miles for the county as a whole has 7 units. The detailed soil map consists of 57 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## KNOX COUNTY, NE

Major fieldwork for this survey was completed in 1987, and the survey report was published 10 years later. Work on the survey was done by: Ronald B. Schulte, Mark E. Willoughby, Jan Carlson, and Charles F. Mahnke, Natural Resources Conservation Service, and Mark Perry, University of Nebraska, Conservation and Survey Division. The survey recorded 51 series and 119 map units in an area of 728,679 acres. The report consists of 320 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 11 units. The detailed soil map consists of 90 sheets on a photomosaic base at a scale if 3.16 inches per mile, or 1:20,000.

## LANCASTER COUNTY, NE

Started in 1965, the fieldwork was completed 12 years later and the survey report was published 3 years after that. Work on the survey was done by: Lawrence E. Brown, Loyal Quandt, Steve Scheinost, Jay Wilson, and Doug Witte, Soil Conservation Service, and Steve Hartung, University of Nebraska, Conservation and Survey Division. The survey recorded 25 series and 66 map units in an area of 545,856 acres. The report consists of 174 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 8 units. The detailed soil map consists of 63 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## LINCOLN COUNTY, NE

Started in 1957, the fieldwork was completed 14 years later and the survey report was published 7 years after that. Work on the survey was done by: Gilbert A. Bowman, Melvin A. James. Clifford D. Kepler, Thomas E. Beesley, William J. Jones, and William E. Mckinzie, Soil Conservation Service. The survey recorded 29 series and 89 map units in an area of 1,614,720 acres. The report consists of 119 pages. A general soil map in color at a scale of 1:316,800 for the county as a whole has 11 units. The detailed soil map consists of 194 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## LOGAN COUNTY, NE

Started in 1965, the fieldwork was completed two years later and the survey report was published 7 years after that. Work on the survey was done by: Merrit A. Plantz and Lester E. Sherfey, Soil Conservation Service. The survey recorded 19 series and 47 map units in an area of 364,608 acres. The report consists of 70 pages. A general soil map in color at a scale of

1:190,080 for the county as a whole has 8 units. The detailed soil map consists of 32 sheets on a photomosaic base at a scale of 2.64 inches per mile, or 1:24,000.

## LOUP COUNTY, NE

Major fieldwork for this survey was completed in 1985, and the survey report was published 5 years later. Work on the survey was done by: Daniel R. Shurtliff and Vernon C. Seevers, Soil Conservation Service, and Francis V. Belohlavy, University of Nebraska, Conservation and Survey Division. The survey recorded 21 series and 50 map units in an area of 367,392 acres. The report consists of 190 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 12 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## MADISON COUNTY, NE

Started in 1974, the fieldwork was completed 6 years later and the survey report was published 4 years after that. Work on the survey was done by: Charles L. Hammond, Wayne Vanek, Duane Rieke, and Mark E. Willoughby, Soil Conservation Service, and Mark Kuzila, Alan T. Nass, and Randall Staples, University of Nebraska, Conservation and Survey Division. The survey recorded 34 series and 61 map units in an area of 368,326 acres. The report consists of 182 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 9 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## MCPHERSON COUNTY, NE

Started in 1962, fieldwork was completed two years later and the survey report was published 5 years after that. Work on the survey was done by: Lester E. Sherfey, Soil Conservation Service. The survey recorded 6 series and 13 map units in an area of 547,200 acres. The report consists of 35 pages. A general soil map in black and white for the county as a whole has 5 units. The detailed soil map consists of 30 sheets on a photomosaic base at a scale of 2.0 inches per mile, or 1:31,680.

## MERRICK COUNTY, NE

Started in 1973, the fieldwork was completed 4 years her and the survey report was published 4 years after that. Work on the survey was done by: Robert S. Pollock, Soil Conservation Service, and Isaac Knapton and Mickael Peterson, University of Nebraska, Conservation and Survey Division. The survey recorded 42 series and 71 map units in an area of 307,264 acres. The report consists of 203 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 15 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## MORRILL COUNTY, NE

Major fieldwork for this survey was completed in 1980, and the survey report was published 5 years later. Work on the survey was done by: Norman P. Helzer, Dale R. Gengenbach, J. Cameron Loerch, Gary L. McCoy, and Rita S. Dallavalle, Soil Conservation Service. The survey recorded 40 series and 109 map units in an area of 900,808 acres. The report consists of 257 pages. A general soil map in color at a scale of 1:316,800 for the county

as a whole has 14 units. The detailed soil map consists of 108 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## NANCE COUNTY, NE

Major fieldwork for this survey was completed in 1954, and the survey report was published 6 years later. Work on the survey was done by: John E. Williard, Jack E. Woods, Herbert L. Kollmorgen, B.H. Williams, and L.E. Mitchell, Soil Conservation Service, and J.A. Elder, University of Nebraska, Conservation and Survey Division. The survey recorded 23 series and 90 map units in an area of 280,320 acres. The report consists of 44 pages. A general soil areas figure for the county as a whole has three main soil areas. The detailed soil map consists of 43 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## NEMAHA COUNTY, NE

Started in 1979, the fieldwork was completed 3 years later and the survey report was published 3 years after that. Work on the survey was done by: Donald E. Kerl, Soil Conservation Service, and Monte Babcock, University of Nebraska, Conservation and Survey Division. The survey recorded 31 series and 56 map units in an area of 264,717 acres. The report consists of 176 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 7 units. The detailed soil map consists of 33 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## NUCKOLLS COUNTY, NE

Started in 1968, the fieldwork was completed 5 years later and the survey report was published 5 years after that. Work on the survey was done by: Robert S. Pollock, and Lyle L. Davis, Soil Conservation Service. The survey recorded 21 series and 47 map units in an area of 370,560 acres. The report consists of 81 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 8 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **OTOE COUNTY, NE**

Started in 1973, the fieldwork was completed 5 years later and the survey report was published 4 years after that. Work on the survey was done by: Howard Sautter, Soil Conservation Service, and Dean C. King and Steve M. Peterson, University of Nebraska, Conservation and Survey Division. The survey recorded 27 series and 46 map units in an area of 396,416 acres. The report consists of 146 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 48 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## PAWNEE COUNTY, NE

Started in 1961, the fieldwork was completed 7 years later, and the survey report was published 8 years after that. Work on the survey was done by: Howard E. Sautter, Soil Conservation Service. The survey recorded 17 series and 39 map units in an area of 277,120 acres. The report consists of 74 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 4 units. The detailed soil map consists of 63 sheets on a photomosaic base at a scale of 4 inches per mile, or 1:15,840.

#### PERKINS COUNTY, NE

Major fieldwork for this survey was completed in 1986, and the survey report was published 5 years later. Work on the survey was done by: Harry Paden, Soil Conservation Service, and Charles Morris and Randall Staples, University of Nebraska, Conservation and Survey Division. The survey recorded 28 series and 50 map units in an area of 566,470 acres. The report consists of 178 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 11 units. The detailed soil map consists of 66 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### PHELPS COUNTY, NE

Started in 1958, the fieldwork was completed 5 years later and the survey report was published 10 years after that. Work on the survey was done by: Gilbert A. Bowman, Larry G. Ragon, Charles L. Hammond, Lawrence E. Brown, and Rafael A. Boccheciamp, Soil Conservation Service. The survey recorded 21 series and 51 map units in an area of 348,800 acres. The report consists of 91 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 7 units. The detailed soil map consists of 46 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### PIERCE COUNTY, NE

Started in 1959, the fieldwork was completed 10 years later and the survey report was published 7 years after that. Work on the survey was done by: Ronald B. Schulte, Charles L. Hammond, and Charles F. Mahnke, Soil Conservation Service. The survey recorded 31 series and 77 map units in an area of 366,720 acres. The report consists of 106 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 9 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### PLATTE COUNTY, NE

Major fieldwork for this survey was completed in 1983, and the survey report was published 5 years later. Work on the survey was done by: J. Cameron Loerch, Charles L. Hammond, and Paul Bartlett, Soil Conservation Service, and Philip Young, Kenneth Newton, and Robin Zuccolo, University of Nebraska, Conservation and Survey Division. The survey recorded 37 series and 73 map units in an area of 441,049 acres. The report consists of 223 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 14 units. The detailed soil map consists of 54 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### POLK COUNTY, NE

Started in 1961, the fieldwork was completed 4 years later and the survey report was published 9 years after that. Work on the survey was done by: Vernon C. Seevers and Robert S. Pollock, Soil Conservation Service. The survey recorded 22 series and 50 map units in an area of 277,120 acres. The report consists of 80 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 36 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **RED WILLOW COUNTY, NE**

Started in 1958, the fieldwork was completed two years later and the survey report was published 7 years after that. Work on the survey was done by: Norman W. Huber, Ronald R. Hoppes, Norman L. Slama, and Max A. Sherwood, Soil Conservation Service. The survey recorded 13 series and 36 map units in an area of 458,240 acres. The report consists of 52 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 4 units. The detailed soil map consists of 60 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **RICHARDSON COUNTY, NE**

Started in 1960, the fieldwork was completed 6 years later and the survey report was published 8 years after that. Work on the survey was done by: Howard E. Sautter, Arthur D. Kuhl, Norman L. Slama, Loyal A. Quandt, Kenneth J. Good and Lyle L. Davis, Soil Conservation Service. The survey recorded 22 series and 52 map units in an area of 350,720 acres. The report consists of 72 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 7 units. The detailed soil map consists of 43 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### **ROCK COUNTY, NE**

Major fieldwork for this survey was completed in 1981, and the survey report was published 4 years later. Work on the survey was done by: Richard R. Zink, Soil Conservation Service, and Harvey Schultz, Ronald Wright, and Dan Shurtliff, University of Nebraska, Conservation and Survey Division. The survey recorded 26 series and 42 map units in an area of 650,880 acres. The report consists of 168 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 10 units. The detailed soil map consists of 79 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### SALINE COUNTY, NE

Major fieldwork for this survey was completed in 1985, and the survey report was published 5 years later. Work on the survey was done by: Dean W. DaMoude, Soil Conservation Service, and Robert Haneman, John Stecker, Donald E. Ulrich, and Charles E. Morris, University of Nebraska. The survey recorded 19 series and 46 map units in an area of 368,948 acres. The report consists of 160 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### SARPY COUNTY, NE

(See Douglas County)

#### SAUNDERS COUNTY, NE

Major fieldwork for this survey was completed in 1959, and the survey report was published in 1965. Work on the survey was done by: John A. Elder, University of Nebraska, and T. E. Beesley and W. E. McKinzie, Soil Conservation Service. The survey recorded 28 series and 75 map units in an area of 483,840 acres. The report consists of 81 pages. A general soil map in color at a scale of 1:253,440 for the county as a whole has 11 units. The detailed soil map consists of 70 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## SCOTTS BLUFF COUNTY, NE

Started in 1958, the fieldwork was completed 4 years later and the survey report was published 6 years after that. Work on the survey was done by: Donald A. Yost, Dennis L. Brown, Louie L. Buller, and James O. Olson, Soil Conservation Service. The survey recorded 35 series and 106 map units in an area of 476,800 acres. The report consists of 119 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 9 units. The detailed soil map consists of 63 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## SEWARD COUNTY, NE

Started in 1960, the fieldwork was completed 7 years later and the survey report was published 7 years after that. Work on the survey was done by: Loyal A. Quandt, Melvin James, and Kenneth Good, Soil Conservation Service. The survey recorded 19 series and 65 map units in an area of 366,080 acres. The report consists of 85 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## SHERIDAN COUNTY, NE

Major fieldwork for this survey was completed in 1990. Work on the survey was done by: Gary L. McCoy, Robert L. Rayer, Charles F. Mahnke, Daniel R. Shurtliff, Arthur L. Voigtlander and Casey W. Latta, Natural Resources Conservation Service, and Phillip D.Young, David R. Hoover, Monte K. Babcock, Jeffrey A. Green, Jeffrey F. Worm, Stephen L. Lobaugh, Neal B. Stolpe, and Charles E. Morris, University of Nebraska, Conservation and Survey Division. The survey recorded 50 series and 108 map units in an area of 1,582,189 acres. A general soil map for the county as a whole has 16 units. The detailed soil map consists of 189 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### SHERMAN COUNTY, NE

Major fieldwork for this survey was completed in 1986, and the survey report was published 4 years later. Work on the survey was done by: Frank E. Wahl and Larry G. Ragon, Soil Conservation Service, and Phillip D. Young and Mark S. Kuzila, University of Nebraska, Conservation and Survey Division. The survey recorded 22 series and 39 map units in an area of 366,080 acres. The report consists of 163 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 8 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### SIOUX COUNTY, NE

Major fieldwork for this survey was completed in 1992, and the survey report was published 6 years later. Work on the survey was done by: Mark Willoughby, Dan Shurtliff, Bob Rayer, Casey Latta, and Dave Vyain, Natural Resources Conservation Service, and Craig Derickson, Jeff Green, and Phillip Young, University of Nebraska, Conservation and Survey Division, and technical assistance by Norman P. Helzer, Natural Resources Conservation Service, and Mark S. Kuzila, University of Nebraska, Conservation and Survey Division. The survey recorded 48 series and 119 map units in an area of 1,324,876 acres. The report consists of 378 pages. A general soil map in color at a scale of 1:380,160 for the county as a whole has 17

units. The detailed soil map consists of 157 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## STANTON COUNTY, NE

Started in 1974, the fieldwork was completed 5 years later and the survey report was published 3 years after that. Work on the survey was done by: Charles L. Hammond, Wayne J. Vanek, Duane L. Rieke, Mark E. Willoughby, and Rita Dallavalle, Soil Conservation Service, and Mark S. Kuzila, Randall V. Staples, and Alan T. Nass, University of Nebraska. The survey recorded 30 series and 55 map units in an area of 275,840 acres. The report consists of 164 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 10 units. The detailed soil map consists of 36 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## THAYER COUNTY, NE

Started in 1958, the fieldwork was completed 5 years later and the survey report was published 5 years after that. Work on the survey was done by: Robert S. Pollock, Lyle L. Davis, and Vernon Seevers, Soil Conservation Service. The survey recorded 17 series and 46 map units in an area of 369,280 acres. The report consists of 52 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 48 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## THOMAS COUNTY, NE

Major fieldwork for this survey was completed in 1961, and the survey report was published 4 years later. Work on the survey was done by: Lester E. Sherfey, Soil Conservation Service, and Charles Fox and John Nishimura, Forest Service. The survey recorded 8 series and 20 map units in an area of 458,240 acres. The report consists of 44 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 5 units. The detailed soil map consists of 60 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## **THURSTON COUNTY, NE**

Started in 1957, the fieldwork was completed 7 years later and the survey report was published 8 years after that. Work on the survey was done by: Norman L. Slama, Dean W. DaMoude, and Donald E. Kerl, Soil Conservation Service, and John J. Foreman, Bureau of Indian Affairs. The survey recorded 21 series and 60 map units in an area of 248,320 acres. The report consists of 64 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 5 units. The detailed soil map consists of 35 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

## VALLEY COUNTY, NE

Major fieldwork for this survey was completed in 1982, and the survey report was published 3 years later. Work on the survey was done by: Jay R. Wilson and Wayne Vanek, Soil Conservation Service, and Robert S. Ohm and William C. Markley, University of Nebraska, Conservation and survey Division. The survey recorded 21 series and 49 map units in an area of 365,331 acres. The report consists of 154 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 8 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### WASHINGTON COUNTY, NE

Started in 1938, the fieldwork was completed 3 years later. In 1952, the entire bottom land along the Missouri River was flooded. Because of the flooding, the bottom land was resurveyed in 1957, and the survey report was published 7 years after that. Work on the survey was done by: Ross D. Greenawalt, Jack E. Woods, Emil J. Kahabka, Herbert L. Kollmorgen, Donald A. Yost, Harry E. Paden, Dean DaMoude, Russell O. Uehling, and William E. McKinzie, Soil Conservation Service. The survey recorded 25 series and 58 map units in an area of 247,680 acres. The report consists of 79 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 27 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### WAYNE COUNTY, NE

Started in 1963, the fieldwork was completed 6 years later and the survey report was published 6 years after that. Work on the survey was done by: Donald E. Kerl, Soil Conservation Service. The survey recorded 17 series and 37 map units in an area of 283,520 acres. The report consists of 61 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 5 units. The detailed soil map consists of 34 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### WEBSTER COUNTY, NE

Started in 1958, the fieldwork was completed 7 years later and the survey report was published 9 years after that. Work on the survey was done by: Harry E. Paden, Larry G. Ragon, Robert S. Pollock, Donald A. Yost, Jack Young, and Lauren Greiner, Soil Conservation Service. The survey recorded 18 series and 46 map units in an area of 368,000 acres. The report consists of 72 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 6 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### WHEELER COUNTY, NE

Started in 1979, the fieldwork was completed 4 years later and the survey report was published 5 years after that. Work on the survey was done by: Orville Indra, Soil Conservation Service, and Stephen J. Lobaugh and Jeffrey Green, University of Nebraska, Conservation and Survey Division. The survey recorded 24 series and 47 map units in an area of 368,064 acres. The report consists of 192 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 8 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.

#### YORK COUNTY, NE

Started in 1964, the fieldwork was completed 9 years later and the survey report was published 4 years after that. Work on the survey was done by: Vernon C. Seevers, Soil Conservation Service. The survey recorded 11 series and 26 map units in an area of 369,280 acres. The report consists of 52 pages. A general soil map in color at a scale of 1:190,080 for the county as a whole has 4 units. The detailed soil map consists of 44 sheets on a photomosaic base at a scale of 3.16 inches per mile, or 1:20,000.



Initial Field Review, Cass County, 1978. L-R: Dick Base, Jim Culver, Dave Lewis, John Brubacher, and Leroy Stokes, District Conservationist.



Soil scientists measuring soil temperature with a Thermocoples. Cheyenne County, 1984.



Cedar County Soil Survey Review, 1976. L-R:, Chuck Markley, John Elder, & Norm Salma.



Cheyenne County Field Review, 1985. L-R: Wayne Vanek, Mark Kuzila, Jim Culver, and Steve Hartung.



L-R: Albert Wiedel, Harlan Co. Soil & Water Conservation District learning about soil survey from Gilbert Bowman. Orleans, Nebraska 1966.



Enis Alldredge, Soil Scientist (R) explaining soil to Russell Hight, A Great Plains Conservation Cooperator. Banner County, 1960.



L-R: Lou Buller, Soil Correlator, and Lester Sherfey, Soil Scientist, examing Elsmere Soil Profile. Authur County, 1972.



Loyal Quandt recording soil data on aerial photography during Lancaster County Soil Survey, 1973.



Merritt Plantz and Ken Doe, Geologists, Soil Conservation Service, during a soil-geology study in Keya Paha County, 1973.



Rita Dallavalle (R) and Dale Gengenbach looking at soils in Morrill County, 1976.



Cedar County Progress Field Review, 1981. L-R: Mark Kuzila, unidentified person, Chuck Markley, and Larry Milliron.



(L) Merritt Plantz, Project Leader, examining soils for Keya Paha County, 1973.

![](_page_39_Picture_0.jpeg)

L-R: Howard Sautter, Dave Lewis, John Elder, and John Brubaker conducting Otoe County Field Review, 1976.

![](_page_39_Picture_2.jpeg)

L-R: John Brubaker, Dave Lewis, Dean King, and Howard Sautter during Otoe County Field Review, 1976.

![](_page_39_Picture_4.jpeg)

L-R: Jim Culver, Mark Kuzila, Alan Nass, and Charles Hammond on Madison County Soils Review, 1983.

![](_page_39_Picture_6.jpeg)

L-R: Dean DaMoude, unidentified person, unidentified person, Richard Zink, and Ron Schulte participating on field study of soils.

![](_page_40_Picture_0.jpeg)

Clay County Progress Field Review, 1974. L-R: John Elder, Vern Seevers, Roger Hammer, and Art Buechle.

![](_page_40_Picture_2.jpeg)

Chase County Initial Field Review. It was a very hot day - 110° F, July 1974. Standing far left: Bill Parker, State Conservationist.

![](_page_40_Picture_4.jpeg)

1971 - Franklin County Progress Field Review. L-R: Dewayne Riecke, Harry Paden, and Herb Kollmorgan.

![](_page_40_Picture_6.jpeg)

Antelope County Final Field Review - 1973. L-R: Chuck Mahnke (standing), Chuck Hammond, Dave Lewis, Mike Stout (standing), Lou Buller, and Jim Culver.

![](_page_41_Picture_0.jpeg)

Cameron Loerch (L) and Norm Helzer (R) in Morrill County, 1978

![](_page_41_Picture_2.jpeg)

Soil Investigation Sampling Project, Cheyenne County, 1988. L-R: Larry Ragon, Wayne Vanek, Warren Lynn, Dick Base, Steve Hartung, Norm Helzer, Glenn Borchers, and Craig Derickson.

![](_page_41_Picture_4.jpeg)

Brule formation in Morrill County, 1971. Observed by Jim Culver.

![](_page_41_Picture_6.jpeg)

Bill McKinzie providing technical assistance. Scottsbluff, 1975.

![](_page_42_Picture_0.jpeg)

Sandhills Field Study of Soils and Geomorphology, 1984.

![](_page_42_Picture_2.jpeg)

Munsell Color Chart is used to determine soil color.

![](_page_42_Picture_4.jpeg)

Brown County Initial Field Review, 1983. L-R: Bob Turner, Mike Patterson, Monte Babcock, Marvin Dixon, Gayle Siefken, District Conservationist, and Marla Thalen, Range Conservationist.

![](_page_42_Picture_6.jpeg)

Cherry County Progress Field Review, 1988. Standing: Dave Hoover (L) and Norm Helzer.

![](_page_43_Figure_0.jpeg)

Figure 11. Map showing the location of Nebraska Counties

![](_page_44_Figure_0.jpeg)

Figure 12. Status of Soil Surveys, October 1999