

ICPSR 4254

**Great Plains Population and
Environment Data: Agricultural
Data, 1870-1997 [United States]**

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Codebook for 1870 Agricultural Data

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Great Plains Population and Environment Data: Agricultural Data, 1870-1997 [United States]

Myron P. Gutmann, Principal Investigator

Study Description

Introduction

The data in this series of studies were collected by an interdisciplinary research team between 1995 and 2004, as part of a research project funded by the National Institute of Child Health and Human Development (Grant Number R01 HD33445 to the University of Michigan). The goal of the project was to collect information about approximately 500 counties in twelve states of the Great Plains of the United States, and then to analyze those data in order to understand the relationships between population and environment that existed between the years of about 1870 and 2000.

The original conceptualization of the project was to study counties, so the data distributed here are all data about counties. The data fall into four broad categories: about the counties, about agriculture, about demographic and social conditions, and about the environment. The information about counties (name, area, identification code, and whether we classified the county as part of the Great Plains in a given year) are embedded in each of the other data files, so that there will be three series of data (agriculture, demographic and social conditions, and environment), with individual data files for each year for which data are available. As the data are finalized for release, we are making them available to the research community as part of a series entitled "Great Plains Population and Environment Data." The Investigators intend to make all the data they have collected available for public use, subject to the conditions imposed by the original sources of the data.

The Counties

The Great Plains are part of the great natural grassland that stretches across the central part of North America eastward from the Rocky Mountains. We define its boundaries primarily in terms of natural conditions. We set its boundaries on the east at the line of 700 mm of average annual precipitation, and on the west at 5,000 feet of elevation. We bound the Great Plains on the north at the Canadian border and on the south in Texas and New Mexico at the 32nd parallel. Much of the Great Plains is a high plain, more than 2,000 feet above sea level and sloping ever upward as it moves west. The counties of the Great Plains share some environmental characteristics, but because of their range of soil, temperature, precipitation and elevation, are also quite different from each other. The southern plains and the northern plains are not the same; nor are the eastern and western Great Plains. What these sub-regions share is the flat or slightly rising treeless expanse that must have greeted all early visitors, and the preponderance of grasses in their natural vegetation. The result of our selection procedure is a set of about 500 counties (in recent

years) in Montana, Wyoming, Colorado, New Mexico, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Minnesota, and Iowa that share a number of environmental characteristics while retaining a considerable amount of diversity.

The project has collected data for all counties within these twelve states (approximately 1010 in recent years). The data files (for agriculture, for demographic and social conditions, and for environment) list each county in each year for which we have collected data, by name and by state and county Federal Information Processing Standards (FIPS) 6-4 Codes¹, the geographic area of the county, and whether the county falls within the boundaries of the Great Plains as we have defined them.

Agricultural Data

The agricultural data included in this Series consists of a single data file for each agricultural census year between 1870 and 1997 that includes selected material compiled as part of the U.S. Agricultural Census. The U.S. Census of Agriculture has been conducted since 1850 on a regular schedule that was decennial until 1920, and more frequently since (every five years from 1925 to 1950, then in 1954, 1959, 1964, 1978, and every five years since 1982). The county-level agricultural data produced by the U.S. government as part of the Census constitute a remarkable and consistent series of measures of changing agriculture and land use.

The data in the Great Plains Population and Environment Data series are a subset of the variables available from the total body of Agricultural Census information for counties. They were produced by extracting information from previously existing digital files (ICPSR Study No. 3, ICPSR Study No. 2896, Data digitized by the Economic Research Service of the United States Department of Agriculture (USDA), and digital versions of the Agricultural Census produced by the U.S. Bureau of the Census and the USDA), and by manually digitizing selected variables from the volumes published by the U.S. Bureau of the Census and the U.S. Department of Agriculture. All the sources used are listed later in this document. We also list digital versions of the data where they exist. Some of these are part of the ICPSR collection, while others are not.

We have attempted to give the variables consistent names, as shown in the documentation for these files. It is important for data users to recognize that there are sometimes significant but subtle differences between what may appear to be the same variable in two different census years. Where possible our technical documentation emphasizes those differences, but to be certain the data user may need to do his or her own exploration into the sources.

¹ For a description of the FIPS 6-4 Codes, see <http://www.itl.nist.gov/fipspubs/fip6-4.htm>. For counties dissolved before FIPS codes were implemented, we used a combination of codes created by the HUSGO project and codes created by the Great Plains Project. We followed the geography used by the Census Bureau, and also assigned new codes to counties that were substantially different geographic areas than in later censuses.

Missing Values

Virtually all the data in the Great Plains Population and Environment database are drawn from published tabulations of administrative and survey data at the scale of the U.S. County. In the database, some of those data are characterized as “missing,” and assigned to one of the categories identified in this table. There are a number of reasons why data may be missing for a given variable for a given county in a given year. At the simplest, the county might not yet have been created at the time of that census, or the Census Bureau (or other data producer) might have combined two or more counties into a single tabulation unit for a specific publication. Other reasons for data being missing may have something to do with the characteristics of the county. For example, some counties do not have a climate suitable for growing a specific crop, which we see for cotton -- tabulated for Texas but never for North Dakota. In another common example in the agricultural data, counties with data from too few farms in a single tabulation would be recorded as “missing” in order to prevent the characteristics of those farms from being revealed in the data. Finally, data are missing because there has been some problem in reproducing them, either because the original publication is illegible, or because we have constructed them from multiple sources and one or more of those sources is itself missing.

The research team that produced these data has maintained the fine grain of different types of missing data because we believe that the different kinds of missing data reveal important information that may be useful in their analysis.

Missing values frequencies are not included the summary statistics in the following codebook. They will be found in the data files as negative values. All negative values in the datasets are missing values. Missing values have been coded according to the table on the next page.

Missing Value Coding

Code	Explanation
-1	Data not applicable* FOR EXAMPLE: Agricultural data from Indian Reservations were recorded according to county boundaries in 1910. Therefore, the values for Pine Ridge Indian Reservation, South Dakota, are -1.
-2	Data not available* Data not available (not reported, schedules destroyed, information lost, etc.) - ICPSR -9*** No data available (same as -9) - ICPSR -1***
-3	Less than half of the unit shown*
-4	Withheld for privacy. Withheld to avoid disclosing data for individual farms* Data not reported to avoid violation of confidentiality rules of data collector (e.g., the Census Bureau)***
-5	Data not published for this state or county**
-7	Data included in "all other"*** In some tables, not all counties were explicitly tabulated. Those that were not constituted as separate unit, labeled "All Other." For example, irrigation data were only reported for 8 counties in Kansas in 1920, with the rest grouped into "Other Counties." Therefore, most counties in Kansas have values of -7 for the irrigation variables.
-8	Data illegible in published volumes***
-9	Data has special problems (see footnote in original source)**
-10	Data included under another entry (combination of two or more variables, etc.) *** These variables are set off by brackets in the published tables.
-11	Data recorded under another political unit*** For example, San Juan County, Colorado, data were included with the data for La Plata County in 1940. Therefore, the values for San Juan County are -11.
-13	Sum of missing values. Variable is the sum of variables where the value is missing for all components. This flag appears only as a result of programming.**
-14	Result of merge. Variable is not available or was not collected for this unit, but appears in master data files as the result of merging multiple files. This flag appears only as a result of programming.**
-15	Sum with missing value(s). Variable is the sum of other variables, where the value is missing for one or more of the components. This flag appears only as a result of programming.**
	*USDA Census of Agriculture
	**Great Plains Project
	***ICPSR Study No. 3 Codebook

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Bibliography of Sources

- Bureau of the Census. *Census of Agriculture, 1969 and 1974 - Combined File: NE, ND, SD, KS, MT, WY, CO, NM, OK, TX*. Electronic Files on CD-ROM, copied from original magnetic tapes. Washington, D.C.: The Bureau [producer and distributor], 1996.
- Bureau of the Census. *Census of Agriculture, 1969 and 1974 - Combined-Final, County and Misc. Data Files*. Electronic files on CD-ROM, copied from original magnetic tapes. Washington, D.C.: The Bureau [producer and distributor], 1997.
- Bureau of the Census. *Census of Agriculture, 1969 and 1974 - Combined-Final, County File*. Electronic Files on CD-ROM, copied from original magnetic tapes. Washington, D.C.: The Bureau [producer and distributor], 1997.
- Bureau of the Census. *Census of Agriculture, 1987 - Geographic Area Series: State and County Data Files*. Electronic Files on CD-ROM. Washington D.C.: The Bureau [producer and distributor], 1990.
- Bureau of the Census. *Census of Agriculture, 1992 - Geographic Area Series 1B: U.S. Summary and County Level Data*. Electronic Files on CD-ROM. Washington, D.C.: The Bureau [producer and distributor], 1993.
- U.S. Bureau of the Census. *County and City Data Book Consolidated File, County Data 1947-1977*. Washington, D.C.: The Bureau of the Census, 1978.
- Earle, Carville and Changyong Cao. *The Historical United States County Boundary Files 1850-1970*. Geoscience Publications: Baton Rouge, Department of Geography and Anthropology, Louisiana State University, 1991
- Earle, Carville, Changyong Cao, John Heppen and Samuel Otterstrom. *The Historical United States County Boundary Files 1790 – 1999 on CD-ROM*. Geoscience Publications: Louisiana State University, 1999 (Revised 2003).
- Economic Research Service, U.S. Department of Agriculture. *Census of Agriculture County Profiles, 1949-1982*. Electronic files on magnetic tape, 1989.
- Economic Research Service, U.S. Department of Agriculture. *Conservation Reserve Program Summary File, Signups 1-12 (1986-1993)*. 1995.
- Forstall, Richard L. *Population of States and Counties of the United States: 1790 to 1990*. U.S. Bureau of the Census, Washington, DC, 1996.
- Horan, Patrick and Peggy Hargis. *County Longitudinal Template, 1840-1990*. Inter-University Consortium for Political and Social Research (ICPSR) Study 6576.
- Inter-University Consortium for Political and Social Research . *Historical Demographic, Economic and Social Data: The United States, 1790-1970*. 1972.

Thorndale, William and William Dollarhide. *Map Guide to the U.S. Federal Censuses, 1790-1920*. Baltimore, Genealogical Publishing Company, 1987

U.S. Bureau of the Census. *Ninth Census of the United States, 1870 - A Compendium*. Washington, D.C.: Government Printing Office, 1872.

———. *Ninth Census of the United States, 1870 - Vol. III, The Statistics of the Wealth and Industry of the United States*. Washington, D.C.: Government Printing Office, 1872.

———. *Tenth Census of the United States, 1880 - The Area of the United States*. Washington, D.C.: Government Printing Office, 1881.

———. *Tenth Census of the United States, 1880 - Vol. III, Report on the Production of Agriculture*. Washington, D.C.: Government Printing Office, 1883.

———. *Eleventh Census of the United States, 1890 - Vol. V, Report on the Statistics of Agriculture*. Washington, D.C.: Government Printing Office, 1895.

———. *Eleventh Census of the United States, 1890 - Report on Agriculture by Irrigation in the Western Part of the United States*. Washington, D.C.: Government Printing Office, 1895.

———. *Twelfth Census of the United States, 1900 - Vol. V, Agriculture of the United States*. Washington, D.C.: Government Printing Office, 1902.

———. *Twelfth Census of the United States, 1900 - Vol. VI, Agriculture of the United States*. Washington, D.C.: Government Printing Office, 1902.

———. *Thirteenth Census of the United States, 1910 - Vol. VI, Agriculture*. Washington, D.C.: Government Printing Office, 1915.

———. *Thirteenth Census of the United States, 1910 - Vol. VII, Agriculture*. Washington, D.C.: Government Printing Office, 1915.

———. *Fourteenth Census of the United States, 1920 - Vol. VI, Agriculture*. Washington, D.C.: Government Printing Office, 1922.

———. *Fifteenth Census of the United States, 1930 - Agriculture, Vol. I*. Washington, D.C.: Government Printing Office, 1931.

———. *Fifteenth Census of the United States, 1930 - Agriculture, Vol. II*. Washington, D.C.: Government Printing Office, 1932.

———. *Fifteenth Census of the United States, 1930 - Agriculture, Vol. III*. Washington, D.C.: Government Printing Office, 1932.

———. *Fifteenth Census of the United States, 1930 - Irrigation of Agricultural Lands*.

- Washington, D.C.: Government Printing Office, 1933.
- . *Sixteenth Census of the United States, 1940 - Abandoned or Idle Farms*. Washington, D.C.: Government Printing Office, 1943.
- . *Sixteenth Census of the United States, 1940 - Agriculture, Cows Milked and Dairy Products*. Washington, D.C.: Government Printing Office, 1942.
- . *Sixteenth Census of the United States, 1940 - Agriculture, Cross-Line Acreage*. Washington, D.C.: Government Printing Office, 1943.
- . *Sixteenth Census of the United States, 1940 - Agriculture, Drainage of Agricultural Lands*. Washington, D.C.: Government Printing Office, 1942.
- . *Sixteenth Census of the United States, 1940 - Agriculture, Vol. I*. Washington, D.C.: Government Printing Office, 1942.
- . *Sixteenth Census of the United States, 1940 - Agriculture, Vol. II*. Washington, D.C.: Government Printing Office, 1942.
- . *Sixteenth Census of the United States, 1940 - Irrigation of Agricultural Lands*. Washington, D.C.: Government Printing Office, 1942.
- . *United States Census of Agriculture, 1925*. Washington, D.C.: Government Printing Office, 1926.
- . *United States Census of Agriculture, 1935 - Vol. I*. Washington, D.C.: Government Printing Office, 1936.
- . *United States Census of Agriculture, 1935 - Vol. II*. Washington, D.C.: Government Printing Office, 1936.
- . *United States Census of Agriculture, 1945 - Vol. I*. Washington, D.C.: Government Printing Office, 1946.
- . *United States Census of Agriculture, 1950 - Vol. I*. Washington, D.C.: Government Printing Office, 1952.
- . *United States Census of Agriculture, 1954 - Vol. I*. Washington, D.C.: Government Printing Office, 1956.
- . *United States Census of Agriculture, 1959 - Vol. I*. Washington, D.C.: Government Printing Office, 1961.
- . *United States Census of Agriculture, 1964 - Vol. I*. Washington, D.C.: Government Printing Office, 1967.
- . *United States Census of Agriculture, 1969 - Vol. I*. Washington, D.C.: Government Printing Office, 1972.

- . *United States Census of Agriculture, 1974 - Vol. I*. Washington, D.C.: Government Printing Office, 1977.
- . *United States Census of Agriculture, 1978 - Vol. I*. Washington, D.C.: Government Printing Office, 1981.
- . *United States Census of Agriculture, 1982 - Vol. I*. Washington, D.C.: Government Printing Office, 1984.
- . *United States Census of Agriculture, 1987 - Vol. I*. Washington, D.C.: Government Printing Office, 1989.
- U.S. Department of Agriculture and the National Agricultural Statistics Service. *Census of Agriculture, 1997 - Vol. I: Geographic Area Series 1A State-Level Data*. Electronic Files on CD-ROM. Washington, D.C. 1999.
- U.S. Department of Agriculture and the National Agricultural Statistics Service. *Census of Agriculture, 1997 - Vol. I: Geographic Area Series 1B County-Level Data*. Electronic Files on CD-ROM. Washington, D.C.: 1999.
- U.S. Department of Agriculture and the National Agricultural Statistics Service. *Census of Agriculture, 1997 - Vol. I: Geographic Area Series 1C Adobe Acrobat PDF Files*. Electronic Files on CD-ROM. Washington, D.C.: 1999.
- U.S. Department of Commerce, Bureau of Foreign and Domestic Commerce. *Circulation of Farm Publications by States and Counties: Supplement to the Market Data Handbook of the United States*. Domestic Commerce Series, 30. Washington, D.C.: Government Printing Office, 1929.
- . *Consumer Market Data Handbook*. Domestic Commerce Series, 102. Washington, D.C.: U.S. Government Printing Office, 1939.
- . *General Consumer Market Statistics: Supplement No. 1 to the Market Data Handbook of the United States*. Domestic Commerce Series, 56. Washington, D.C.: Government Printing Office, 1932.
- U.S. Department of Commerce, Bureau of the Census. *County Statistics File 3 (CO-STAT3) - ICPSR Study 9168*. Ver. First ICPSR Edition. 1989.
- U.S. Department of Commerce, Bureau of the Census. *USA Counties 1996 (CO-STAT96)*. Machine-readable data files on CD-ROM. Washington, D.C.: Bureau of the Census, 1996.

Agricultural Data Codebook

Contents:

Table 1. Agricultural Variables by Category

Data Codebook

Table 2. Agricultural Variables Sources

Table 1. Agricultural Variables by Category, lists the variables in the data file, with the variable name assigned by the Great Plains Project in the first column and a longer variable description taken from the original source in the second column. This description preserves the relationships of items in the original source tables. The variables are grouped into the following categories:

- Grains and Hay
- Row Crops and Vegetables
- Land
- Inputs
- Livestock, Poultry and Dairy
- Market Value

Within each category variables are listed in the order they are found in the source (generally Volume, Table and then order within the Table). Variables are presented in the same order in the Data Codebook and in Table 2.

Data Codebook provides fuller descriptions of each variable, including:

- Variable name
- Brief variable description (which also serves as the variable label)
- Full description from the original source
- Variable source
- Additional notes about the variable not contained in the descriptions
- Summary statistics

Table 2. Agricultural Variables Sources, provides the full name of the source table where applicable, information on variables created by the Great Plains Project, the name of the source (generally the Census Volume), and the organization that keyed the data. Full bibliographic citations are listed above.

Table 1. Agricultural Variables by Category	
Variable	Description
Grains and Hay Variables	
BAR_XH_B	Produced: Barley: Bushels
BWT_XH_B	Produced: Buckwheat: Bushels
FLX_XH_P	Produced: Flax: Pounds
FLX_XH_B	Produced: Flaxseed: Bushels
Row Crops and Vegetable Variables	
COT_XH_C	Produced: Cotton: Bales
PAB_XH_B	Produced: Peas and Beans: Bushels
Land Variables	
FML_XX_A	Sum of the Variables (IML_XX_A, UNL_XX_A, WOD_XX_A)
IML_XX_A	Acres of Land: Improved: Number
UNL_XX_A	Sum of the Variables (WOD_XX_A, UNL_XO_A)
WOD_XX_A	Acres of Land: Unimproved: Woodland: Number
UNL_XO_A	Acres of Land: Unimproved: Other Unimproved: Number
ARE_XX_A	Total Land Area: Acres
FRM_XX_Q	Number of Farms: Of All Sizes
Input Variables	
PRP_XX_V	Present Cash Value: Of Farms: Dollars
IMP_XX_V	Present Cash Value: of Farming Implements and Machinery: Dollars
Livestock, Poultry, and Dairy Variables	
None	
Market Value Variables	
AFP_XX_V	Total (Estimated) Value of All Farm Productions, Including Betterments and Additions to Stock: Dollars
FRU_XX_V	Orchard Products: Dollars
GDN_XX_V	Produce of Market Gardens: Dollars
FST_XX_V	Forest Products: Dollars
STK_XR_V	Value of Animals Slaughtered or Sold for Slaughter: Dollars
STK_XX_V	Livestock: Value of All Live Stock: Dollars

Codebook for ICPSR 04254

Great Plains Population and Environment Data: Agricultural Data

Dataset0001: 1870 Agricultural Data

Variable	Variable Description
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Please Note: The "(M)" to the right of the value indicates the code has been designated as a missing value.

NAME	County name
------	-------------

Start: 1
End: 50
Width: 50
Type: character (ISO)
Interval: discrete

UNFIPS	State + county identifier
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Start: 51
End: 55
Width: 5
Type: character (ISO)
Interval: discrete

GP	Great Plains county status
----	----------------------------

Start: 56
End: 56
Width: 1
Type: numeric (ISO)
Interval: discrete

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	0.00	1.00	0.30	0.46

BAR_XH_B	Barley, bushels
----------	-----------------

Start: 57
End: 63
Width: 7
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Produced: Barley: Bushels

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-

Variable	Variable Description
----------	----------------------

BAR_XH_B	Barley, bushels (<i>cont.</i>)
----------	----------------------------------

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	638440.00	6348.64	32747.12

BWT_XH_B	Buckwheat, bushels
----------	--------------------

Start: 64
End: 68
Width: 5
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Produced: Buckwheat: Bushels

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	7714.00	294.67	830.76

FLX_XH_P	Flaxseed, pounds
----------	------------------

Start: 69
End: 75

Produced: Flax: Pounds

Variable	Variable Description
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FLX_XH_P

Flaxseed, pounds (*cont.*)

Width: 7

Type: numeric (ISO)

Interval: discrete

Missing: -15, -1, thru

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	674500.00	1538.64	29428.98

FLX_XH_B

Flaxseed, bushels

Start: 76

End: 81

Width: 6

Type: numeric (ISO)

Interval: discrete

Missing: -15, -1, thru

Produced: Flaxseed: Bushels

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-

Variable	Variable Description
----------	----------------------

FLX_XH_B	Flaxseed, bushels (<i>cont.</i>)
----------	------------------------------------

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>	
-4	Withheld for privacy	-	-	
-3	Less than half of the unit reported	-	-	
-2	Not available	-	-	
-1 (M)	Not applicable	-	-	
<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	22475.00	204.07	1591.61

COT_XH_C	Cotton, bales
----------	---------------

Start: 82
End: 87
Width: 6
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Produced: Cotton: Bales

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	22452.00	645.25	2178.48

PAB_XH_B	Peas and beans, bushels
----------	-------------------------

Start: 88
End: 93
Width: 6
Type: numeric (ISO)

Produced: Peas and Beans: Bushels

Ninth Census of the United States, 1870 - Vol. III, Table IV

Variable	Variable Description
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PAB_XH_B	Peas and beans, bushels (<i>cont.</i>)
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Interval: discrete
Missing: -15, -1, thru

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	15040.00	349.98	966.71

FML_XX_A	Land in farms, acres
----------	----------------------

Start: 94
End: 100
Width: 7
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Sum of the Variables (IML_XX_A, UNL_XX_A, WOD_XX_A)
Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-

Variable	Variable Description
----------	----------------------

FML_XX_A	Land in farms, acres (<i>cont.</i>)
----------	---------------------------------------

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-13.00	634282.00	90952.68	105920.75

IML_XX_A	Improved land in farms, acres
----------	-------------------------------

Start: 101
End: 107
Width: 7
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Acres of Land: Improved: Number

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	323182.00	32666.51	53372.72

UNL_XX_A	Unimproved land in farms, acres
----------	---------------------------------

Start: 108
End: 114
Width: 7
Type: numeric (ISO)
Interval: discrete

Sum of the Variables (WOD_XX_A, UNL_XO_A)

Ninth Census of the United States, 1870 - Vol. III, Table IV

Variable	Variable Description
----------	----------------------

UNL_XX_A	Unimproved land in farms, acres (<i>cont.</i>)
----------	--

Missing: -15, -1, thru

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	619915.00	58283.92	73526.40

WOD_XX_A	Woodland, acres
----------	-----------------

Start: 115

End: 121

Width: 7

Type: numeric (ISO)

Interval: discrete

Missing: -15, -1, thru

Acres of Land: Unimproved: Woodland: Number

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-

Variable	Variable Description
----------	----------------------

WOD_XX_A Woodland, acres (*cont.*)

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	397025.00	23252.95	45151.56

UNL_XO_A Unimproved land in farms, other, acres

Start: 122
End: 128
Width: 7
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Acres of Land: Unimproved: Other Unimproved: Number
Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	402715.00	35030.17	47476.02

ARE_XX_A Land area, acres

Start: 129
End: 137
Width: 9
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

NOTE: Calculated from square miles.
Atlas GIS map file,

Variable	Variable Description
----------	----------------------

ARE_XX_A	Land area, acres (<i>cont.</i>)
----------	-----------------------------------

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	79179232.00	1504812.36	4854491.18

FRM_XX_Q	Farms, number
----------	---------------

Start: 138
End: 142
Width: 5
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Number of Farms: Of All Sizes

Ninth Census of the United States, 1870 - Vol. III, Table VII

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-

Variable	Variable Description
----------	----------------------

FRM_XX_Q

Farms, number (*cont.*)

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	3013.00	515.92	665.49

PRP_XX_V

Value of land, fences and buildings, dollars

Start: 143

End: 151

Width: 9

Type: numeric (ISO)

Interval: discrete

Missing: -15, -1, thru

Present Cash Value: Of Farms: Dollars

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	12964845.00	1267138.61	2225621.03

IMP_XX_V

Value of implements and machinery, dollars

Start: 152

End: 158

Width: 7

Type: numeric (ISO)

Interval: discrete

Missing: -15, -1, thru

Present Cash Value: of Farming Implements and Machinery: Dollars

Ninth Census of the United States, 1870 - Vol. III, Table IV

Variable	Variable Description
----------	----------------------

IMP_XX_V	Value of implements and machinery, dollars (<i>cont.</i>)
----------	---

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	658944.00	68543.83	117366.86

AFP_XX_V	Value of farm products, dollars
----------	---------------------------------

Start: 159
End: 166
Width: 8
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Total (Estimated) Value of All Farm Productions, Including Betterments and Additions to Stock: Dollars

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-

Variable	Variable Description
----------	----------------------

AFP_XX_V Value of farm products, dollars (*cont.*)

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	3909589.00	442531.41	678718.12

FRU_XX_V Value of fruits and nuts, dollars

Start: 167
End: 172
Width: 6
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Orchard Products: Dollars

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	56267.00	2494.50	8090.13

GDN_XX_V Value of market-garden products sold, dollars

Start: 173
End: 178
Width: 6
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Produce of Market Gardens: Dollars

Ninth Census of the United States, 1870 - Vol. III, Table IV

Variable	Variable Description
----------	----------------------

GDN_XX_V Value of market-garden products sold, dollars (*cont.*)

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	48009.00	1219.42	4423.03

FST_XX_V Value of forest products, dollars

Start: 179
End: 185
Width: 7
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Forest Products: Dollars

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-

Variable	Variable Description
----------	----------------------

FST_XX_V	Value of forest products, dollars (<i>cont.</i>)
----------	--

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	124175.00	3727.48	12166.22

STK_XR_V	Value of animals slaughtered, dollars
----------	---------------------------------------

Start: 186
End: 193
Width: 8
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Value of Animals Slaughtered or Sold for Slaughter: Dollars

Ninth Census of the United States, 1870 - Vol. III, Table IV

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	1075150.00	73198.95	149810.99

STK_XX_V	Value of livestock, dollars
----------	-----------------------------

Start: 194
End: 201
Width: 8
Type: numeric (ISO)
Interval: discrete
Missing: -15, -1, thru

Livestock: Value of All Live Stock: Dollars

Ninth Census of the United States, 1870 - Vol. III, Table IV

Variable	Variable Description
----------	----------------------

STK_XX_V	Value of livestock, dollars (<i>cont.</i>)
----------	--

<i>Value</i>	<i>Label</i>	<i>Frequency</i>	<i>%</i>
-15 (M)	Sum with missing value(s)	-	-
-14	Result of merge	-	-
-13	Sum of missing values	-	-
-11	Recorded under another unit	-	-
-10	Included under another entry	-	-
-9	Special problems	-	-
-8	Illegible in published volumes	-	-
-7	Combined with 'all other'	-	-
-5	Not published for this unit	-	-
-4	Withheld for privacy	-	-
-3	Less than half of the unit reported	-	-
-2	Not available	-	-
-1 (M)	Not applicable	-	-

<i>Valid</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Stdev</i>
532	-14.00	2530023.00	325109.94	442556.55

Table 2. Agricultural Variables Sources

Variable	Table Title	Source	Keyed by
BAR_XH_B	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	GP Project
BWT_XH_B	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	GP Project
FLX_XH_P	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	GP Project
FLX_XH_B	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	GP Project
COT_XH_C	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	GP Project
PAB_XH_B	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	GP Project
FML_XX_A	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	Sum
IML_XX_A	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
UNL_XX_A	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	Sum
WOD_XX_A	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
UNL_XO_A	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
ARE_XX_A	N/A	Atlas GIS map file	ATLAS GIS
FRM_XX_Q	Table VII. Number and Size of Farms	Ninth Census of the United States, 1870 - Vol. III	ICPSR
PRP_XX_V	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
IMP_XX_V	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
AFP_XX_V	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
FRU_XX_V	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
GDN_XX_V	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
FST_XX_V	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
STK_XR_V	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR
STK_XX_V	Table IV. Productions of Agriculture	Ninth Census of the United States, 1870 - Vol. III	ICPSR