

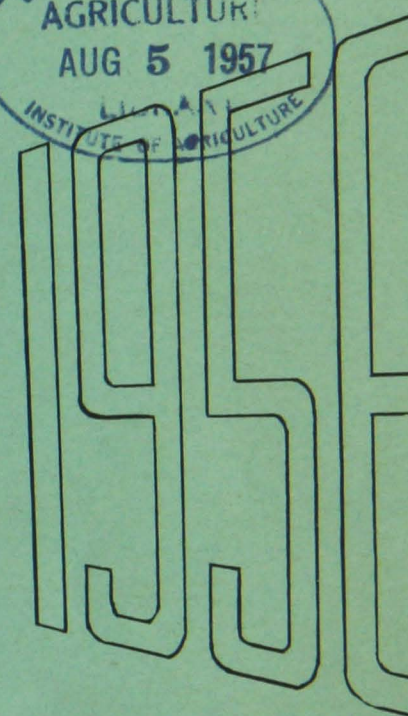
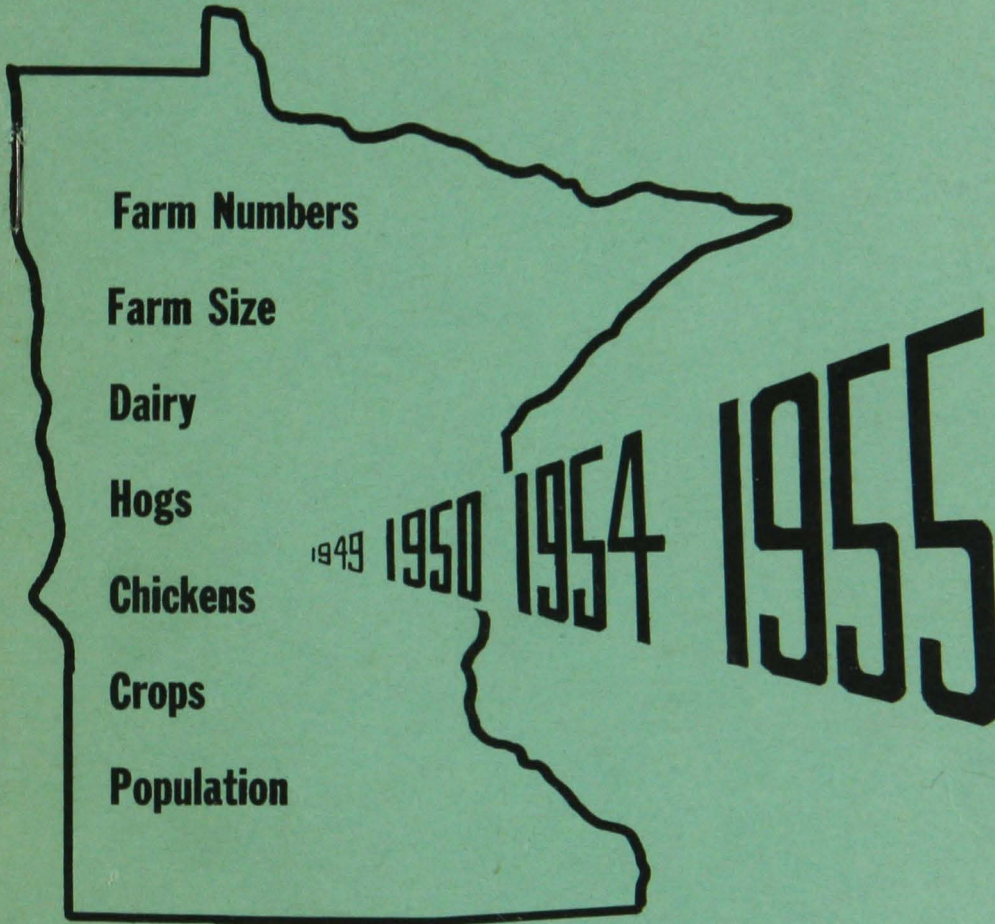
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# CURRENT TRENDS IN MINNESOTA AGRICULTURE

Supplement to County Data Publications



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## INDEX

### Figure

- i. Introduction
1. Percentage change in number of farms--1955 to 1956
2. Percentage change in size of farms--1955 to 1956
3. Percentage change in number of milk cows and heifers two years old and over kept for milk--1955 to 1956
4. Distribution of dairy herds by size and crop reporting districts--1955 and 1956
5. Percentage change in number of sows farrowing spring pigs--1955 to 1956
6. Percentage change in number of hens(chickens) on farms in May--1955 to 1956
7. Soybean acreage to be planted--1955 and 1956
8. Acreage of alfalfa as a percentage of all hay cut in 1956
9. Percentage change in total population--April 1950 to April 1956
10. Percentage of total population living on farms--1956
11. Change in percentage of total population living on farms--1950 to 1956
12. Percentage change in number of people living on farms, 1955 to 1956 and 1951 to 1956



# Current Changes in Minnesota Agriculture

1955 - 1956

## Introduction

This publication has been prepared by the extension economists in marketing and public policy for the purpose of illustrating a number of significant annual changes that have occurred in Minnesota counties since 1954, when the most recent U. S. Census of Agriculture was taken and later reported.

This publication may be considered as the first supplement to the series of 11 county data books on various phases of Minnesota agriculture prepared and released through the Agricultural Extension Service during the past two years. The supplemental material is also given on county outline maps so that comparisons may easily be made with the neighboring counties, the same as with the earlier county data publications.

The data included here on various phases of agriculture were obtained from the Minnesota State Farm Census while that on population is based upon releases from the State Department of Health.

The Minnesota State Farm Census, from which yearly information on Minnesota Crops and Livestock information may be obtained, is published annually by the State -Federal Crop and Livestock Reporting Service, State Office Building, St. Paul 1, Minnesota, Roy A. Bodin, in charge.

Figure 1

1. The number of farms in Minnesota decreased 2.3 percent from 1955 to 1956. Decreases occurred over the entire state but are most noticeable in the cutover area of the northeast.
2. Nobles, Fairbault, Watonwan, Rice, Swift, Meeker, Douglas, and Cook Counties had a slight increase in number of farms. Most of these counties, incidentally, had a corresponding decrease in size of farms (see figure 2).
3. The number of farms in Minnesota has been decreasing steadily from 1946 through 1956 with the greatest decrease occurring in 1956 (see Graph 1).

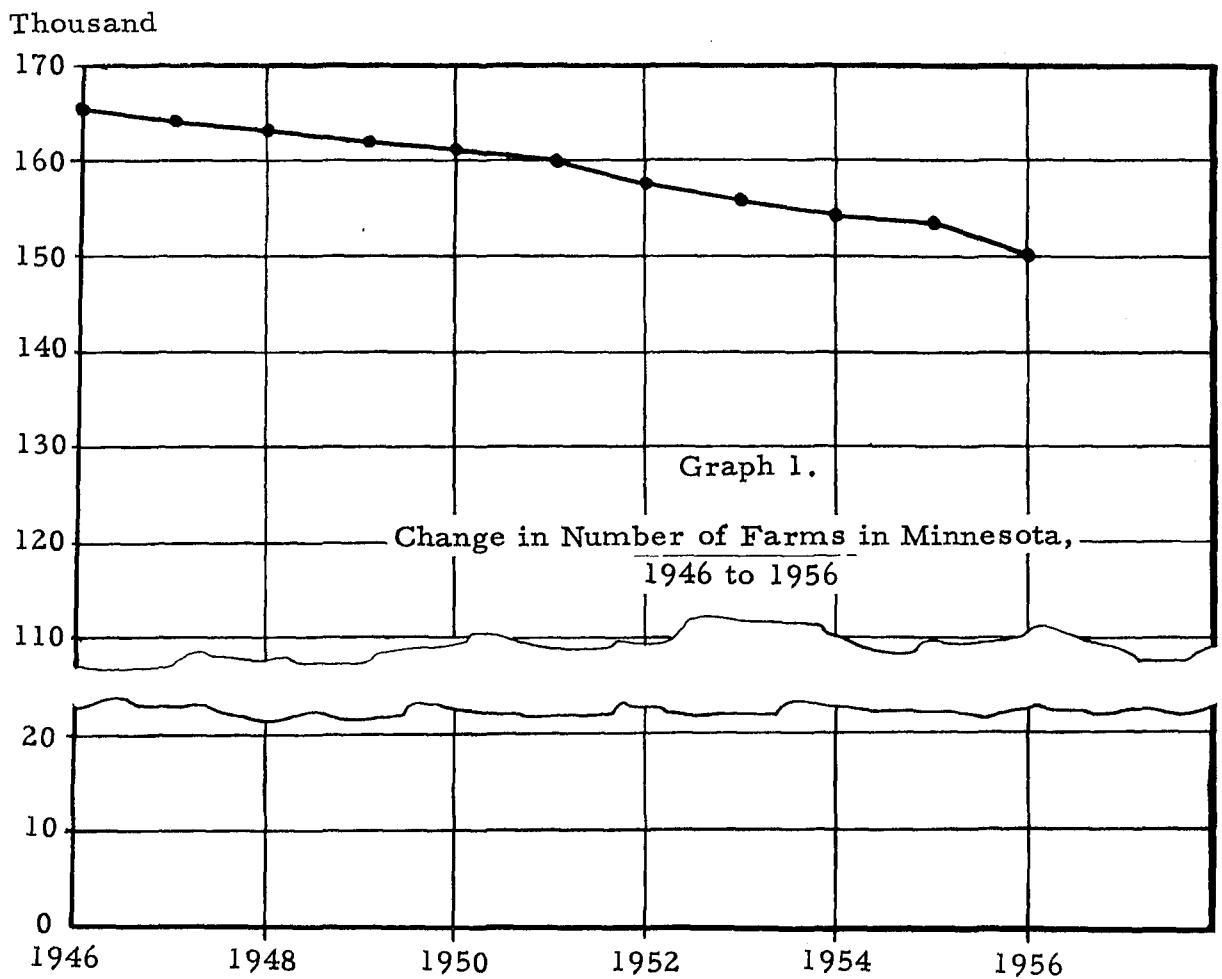


Figure 1. Percentage Change in Number of Farms

1955 to 1956

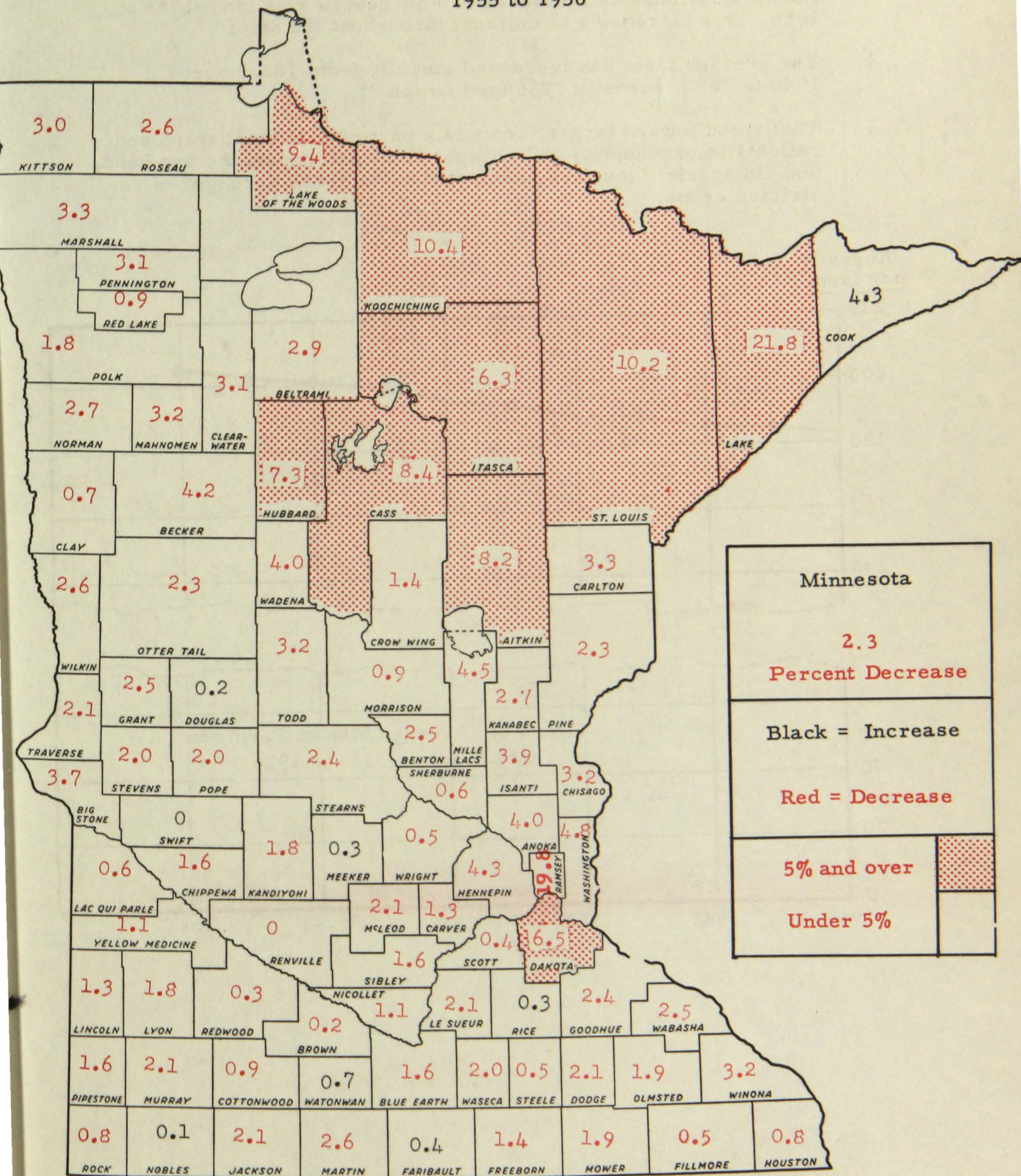


Figure 2

1. Farms in Minnesota increased 0.9 percent in size from 1955 to 1956. This increase was uniform throughout the state.
2. The average farm has increased steadily from 182.9 acres in 1946 to 205.1 acres in 1956 (see Graph 2).
3. This trend toward larger farms is a part of a national trend and reflects improvements and changes in technology on the one hand, and, in special instances, competition for "base acreage" of restricted crops.

Acres  
per farm

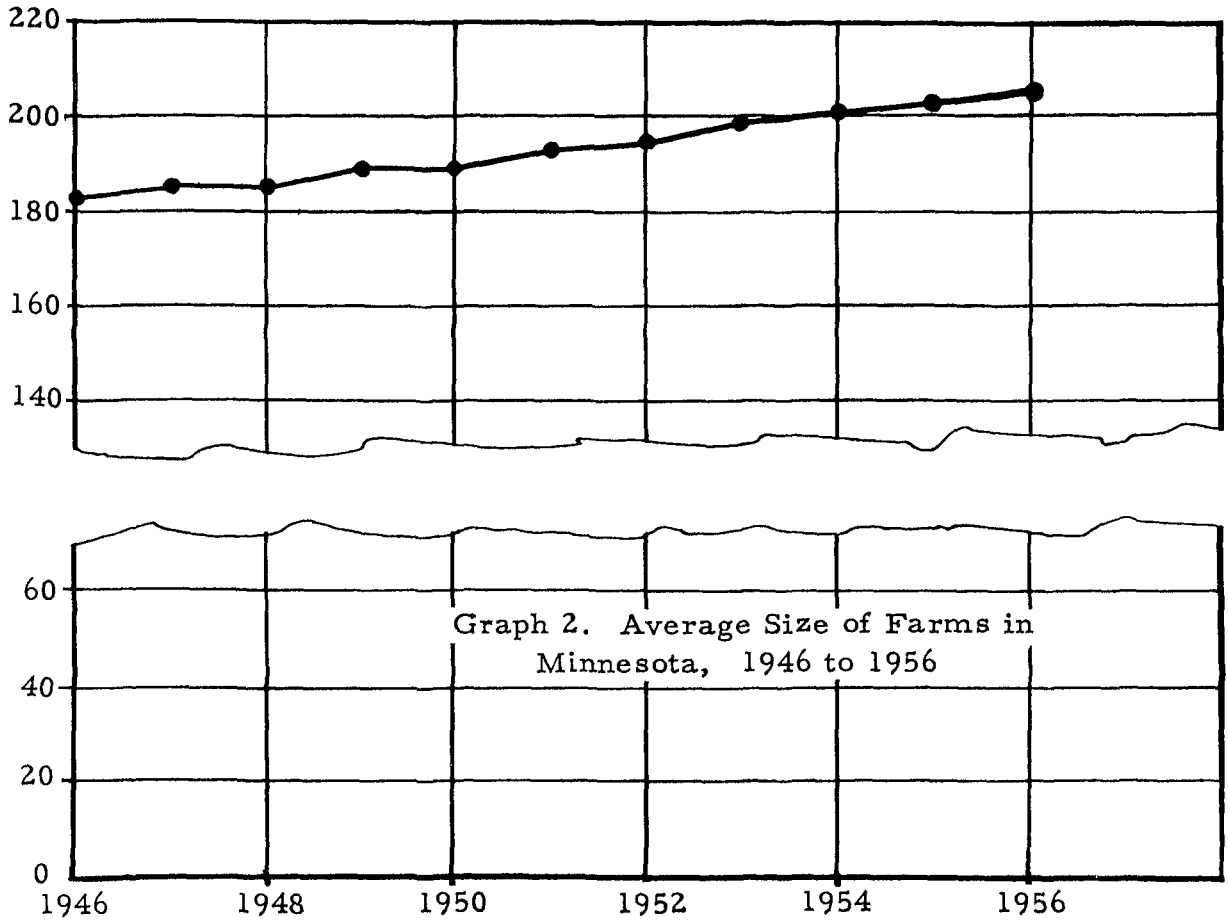
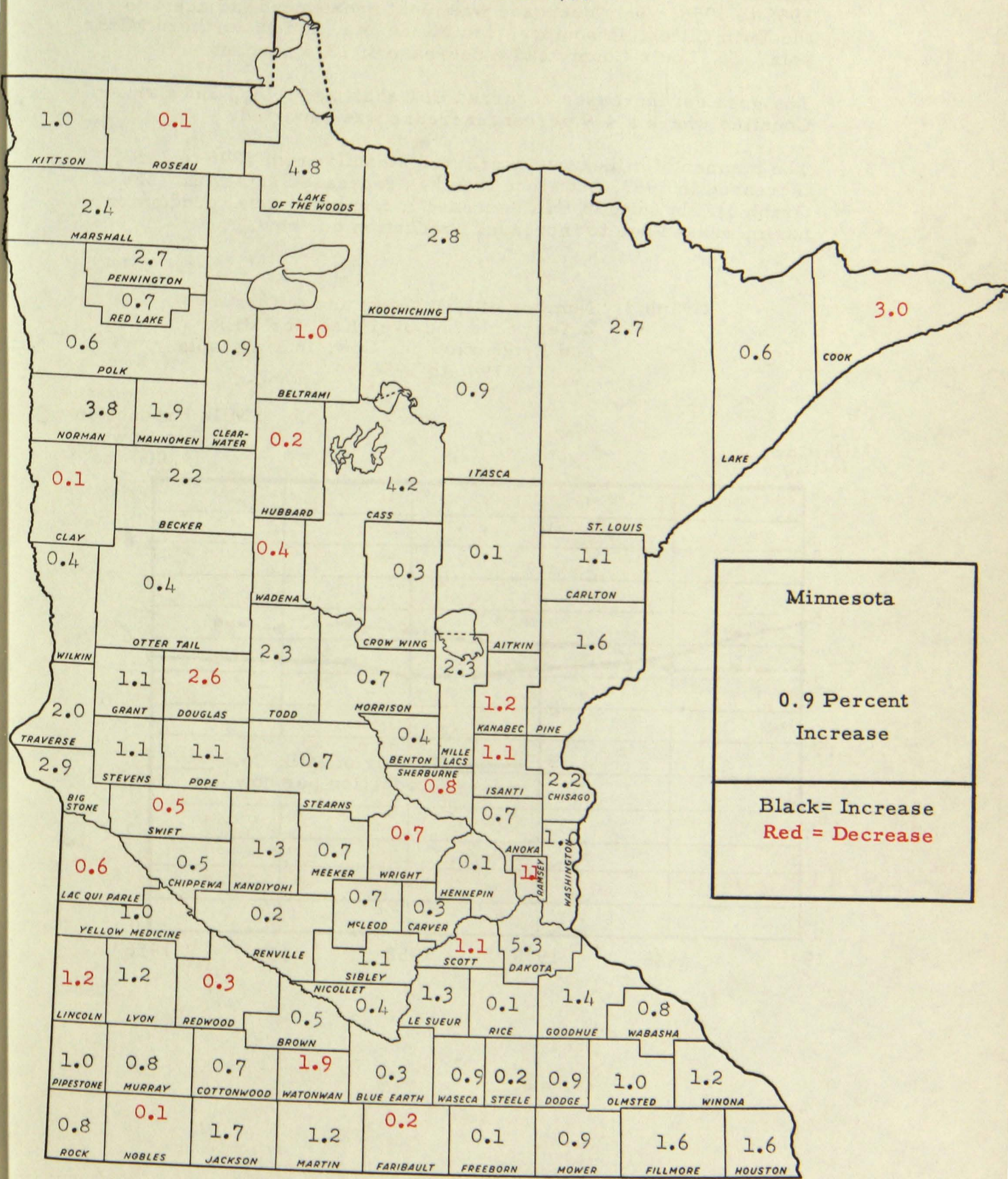




Figure 2. Percentage Change in Size of Farms

1955 to 1956



Minnesota

0.9 Percent Increase

Black = Increase  
Red = Decrease

Figure 3

1. The number of milk cows on farms decreased by 0.3 percent from 1955 to 1956. This decrease was most pronounced adjacent to the Twin Cities, in southeastern Minnesota, and in northern Minnesota. St. Louis County had a decrease of 12.6 percent.
2. The greatest increases occurred in Wabasha, Sibley, and Carver Counties where a 4.9 percent increase was reported.
3. The number of milk cows decreased steadily from 1946 to 1952, increased in 1953, but since then has decreased somewhat (see Graph 3). In spite of this decrease in numbers, total production has increased due to increased production per cow.

Graph 3. Number of Milk Cows and heifers  
2 Years old and over Kept for Milk  
and Production per Cow, in Minnesota  
1946 to 1956

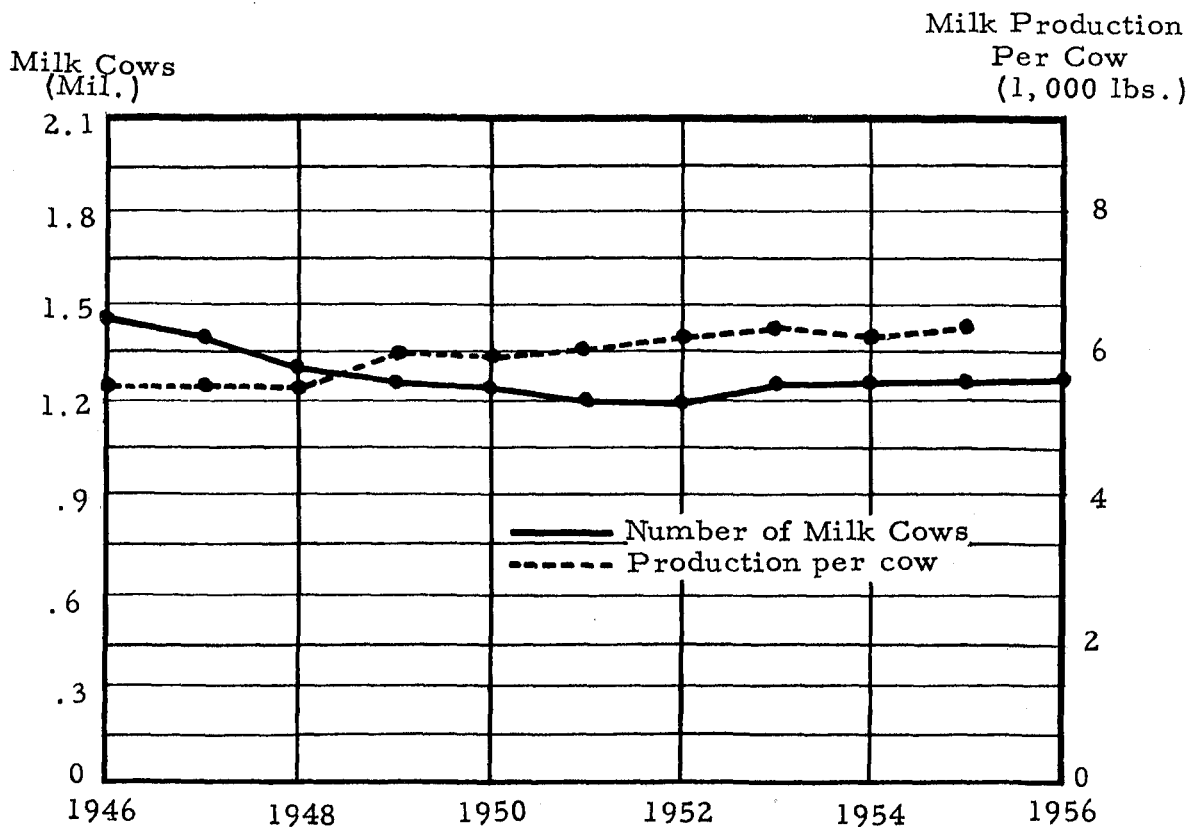
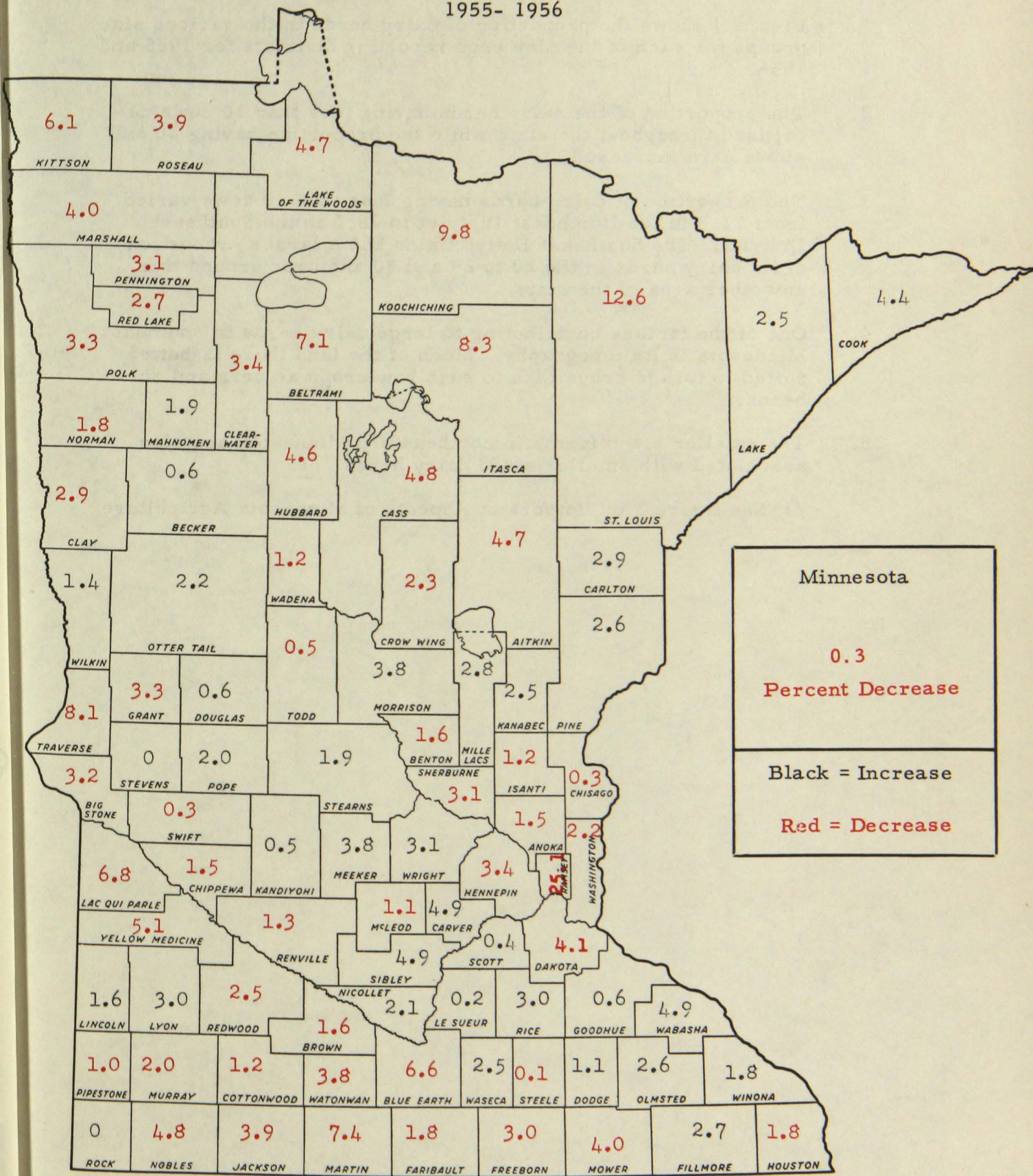


Figure 3. Percentage Change in Number of Milk Cows and Heifers 2 Years and Over Kept for Milk

1955- 1956



#### Figure 4

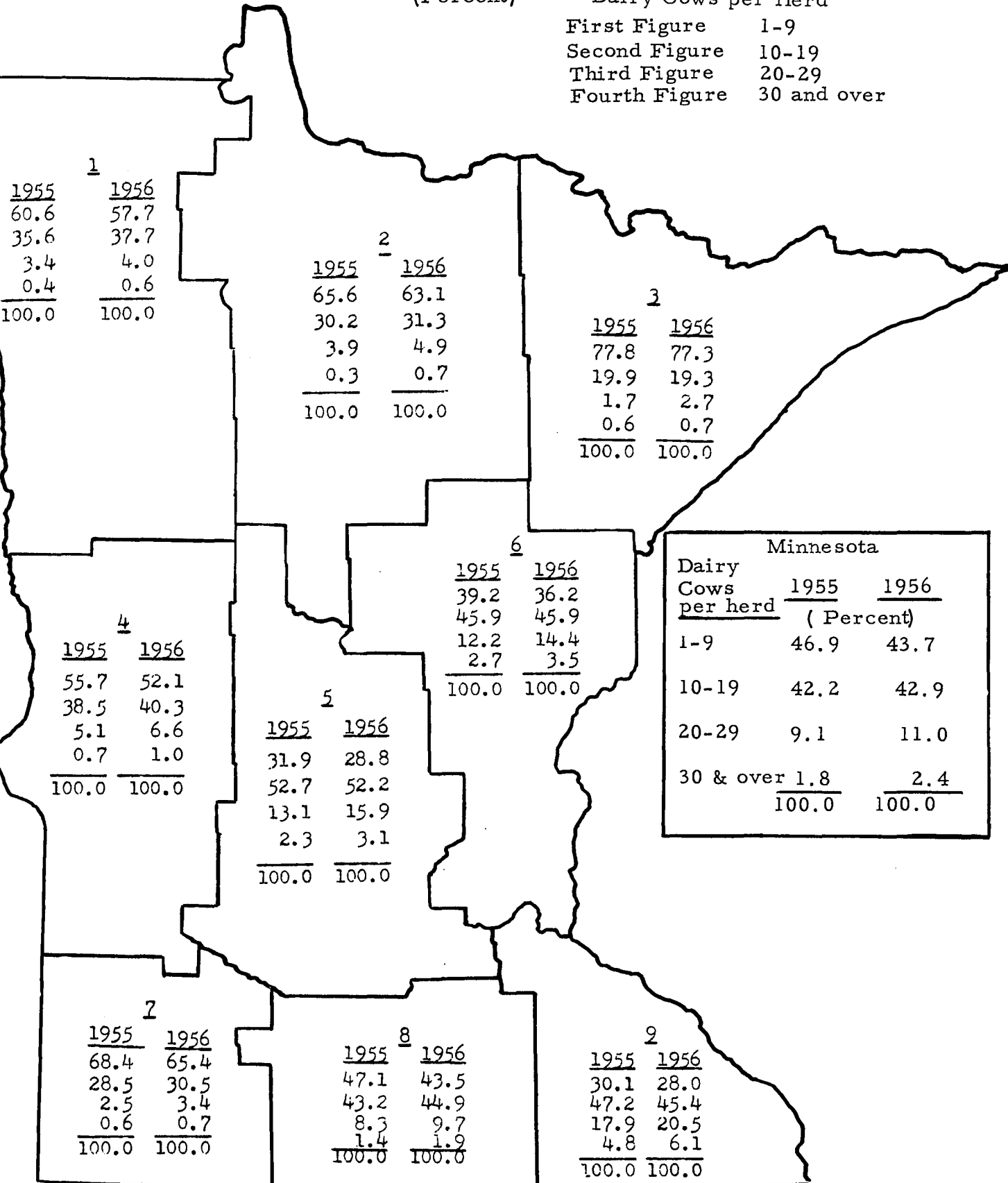
1. Figure 4 shows the proportion of dairy herds in the various size groups for each of the nine crop reporting districts for 1955 and 1956.
2. The proportion of the dairy herds having less than 10 cows decreased throughout the state while the proportion having 20 and above have increased.
3. The proportion of dairy herds having less than 10 cows varied from 77.3 in the Northeast District to 28.0 in the Southeast District. The Southeast District also had a larger proportion of its dairy herds in the 20 to 29 and 30 and over groups than any other area of the state.
4. One of the factors contributing to large dairy herds in southeast Minnesota is its topography. Much of the land there is better suited to forage crops than to such row crops as corn and soybeans.
5. The smaller sized farms in northeastern Minnesota are also associated with smaller sized dairy herds. /1.

/1 See figure 3 in "Important Aspects of Minnesota Agriculture".

Figure 4. Distribution of Dairy Herds by Size according to Crop Reporting Districts

(Percent)

Dairy Cows per Herd  
 First Figure 1-9  
 Second Figure 10-19  
 Third Figure 20-29  
 Fourth Figure 30 and over



| Minnesota           |                |                |
|---------------------|----------------|----------------|
| Dairy Cows per herd | 1955 (Percent) | 1956 (Percent) |
| 1-9                 | 46.9           | 43.7           |
| 10-19               | 42.2           | 42.9           |
| 20-29               | 9.1            | 11.0           |
| 30 & over           | 1.8            | 2.4            |
|                     | <u>100.0</u>   | <u>100.0</u>   |

Figure 5

1. The number of sows farrowing spring pigs in the state decreased 19 percent from 1955 to 1956. However, the drop was less pronounced in the southeast portion of the state.
2. The major factor causing the reduction in spring farrowings was the low hog prices in the fall of 1955. These low prices occurred when plans for spring farrowings were being considered.
3. Graph 4 shows the cyclical movement in numbers of sows farrowing spring pigs over the past ten years. Spring farrowings hit peaks in 1950, 1951, and 1955 and lows in 1948, 1953, and possibly 1956.

Thousand

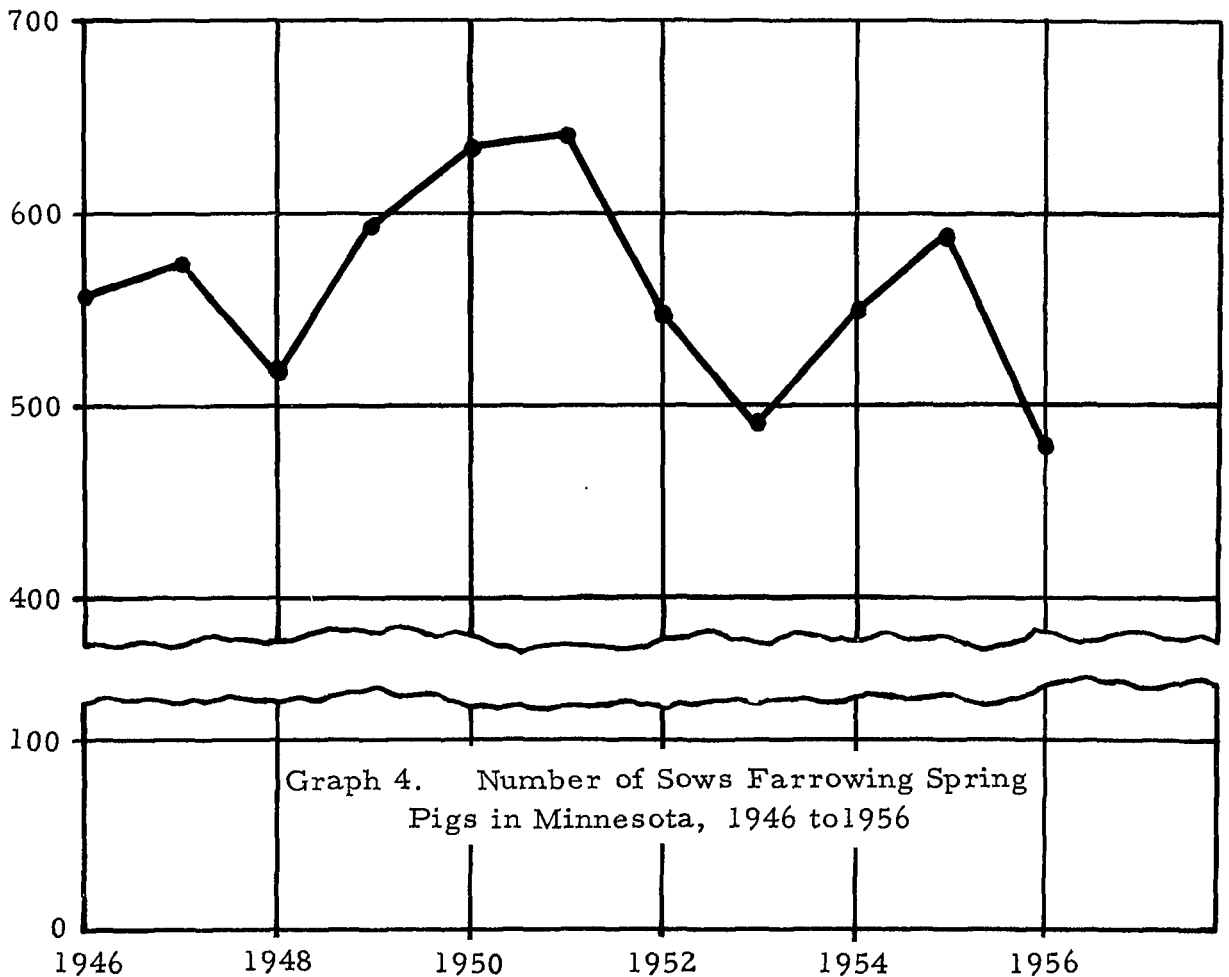
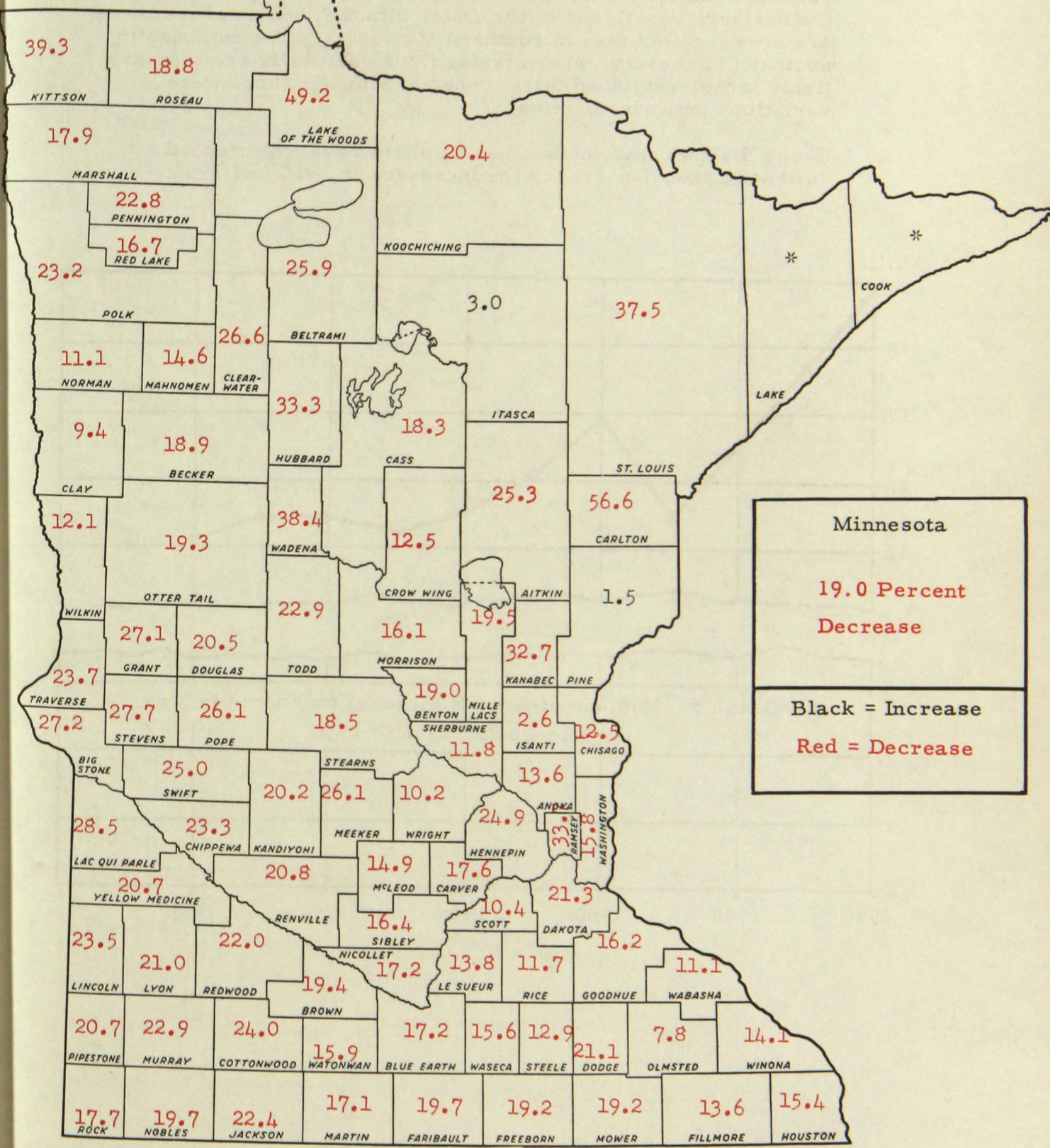


Figure 5. Percentage Change in Number of Sows Farrowing Spring Pigs 1955 to 1956



Minnesota  
 19.0 Percent Decrease

---

Black = Increase  
 Red = Decrease

\* No sows farrowed spring pigs

Figure 6

1. The number of chicken hens on farms in May 1956 decreased two percent from May 1955. This decrease was quite pronounced in the northern two-thirds of the state, although hen numbers there are always fewer than in southern Minnesota. The numbers in southern Minnesota, where laying flocks normally are comparatively large, remained fairly constant although there were variations between counties.
2. Graph 5 shows that chicken hen numbers have experienced a downward trend except for the increases in 1950 and 1954.

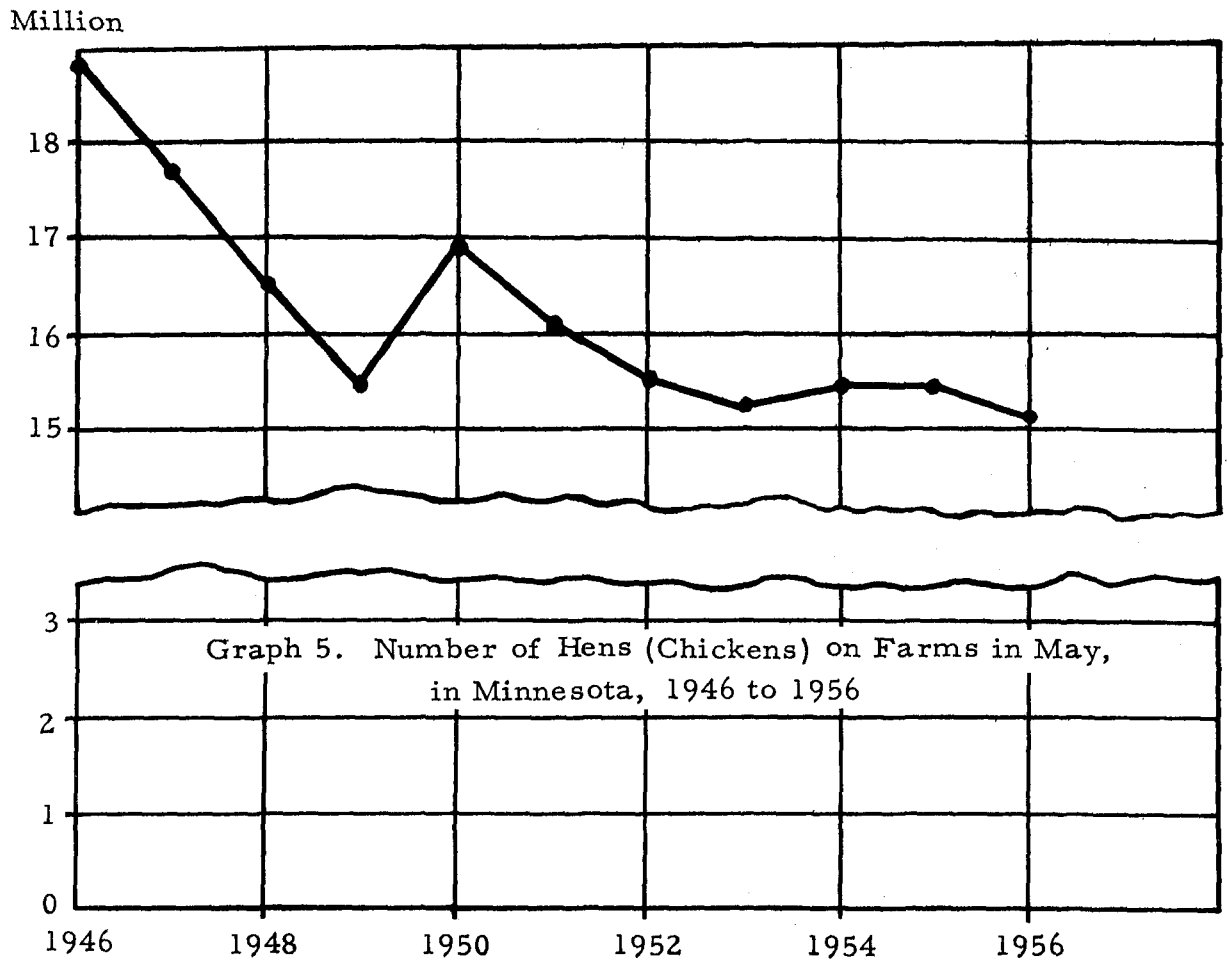
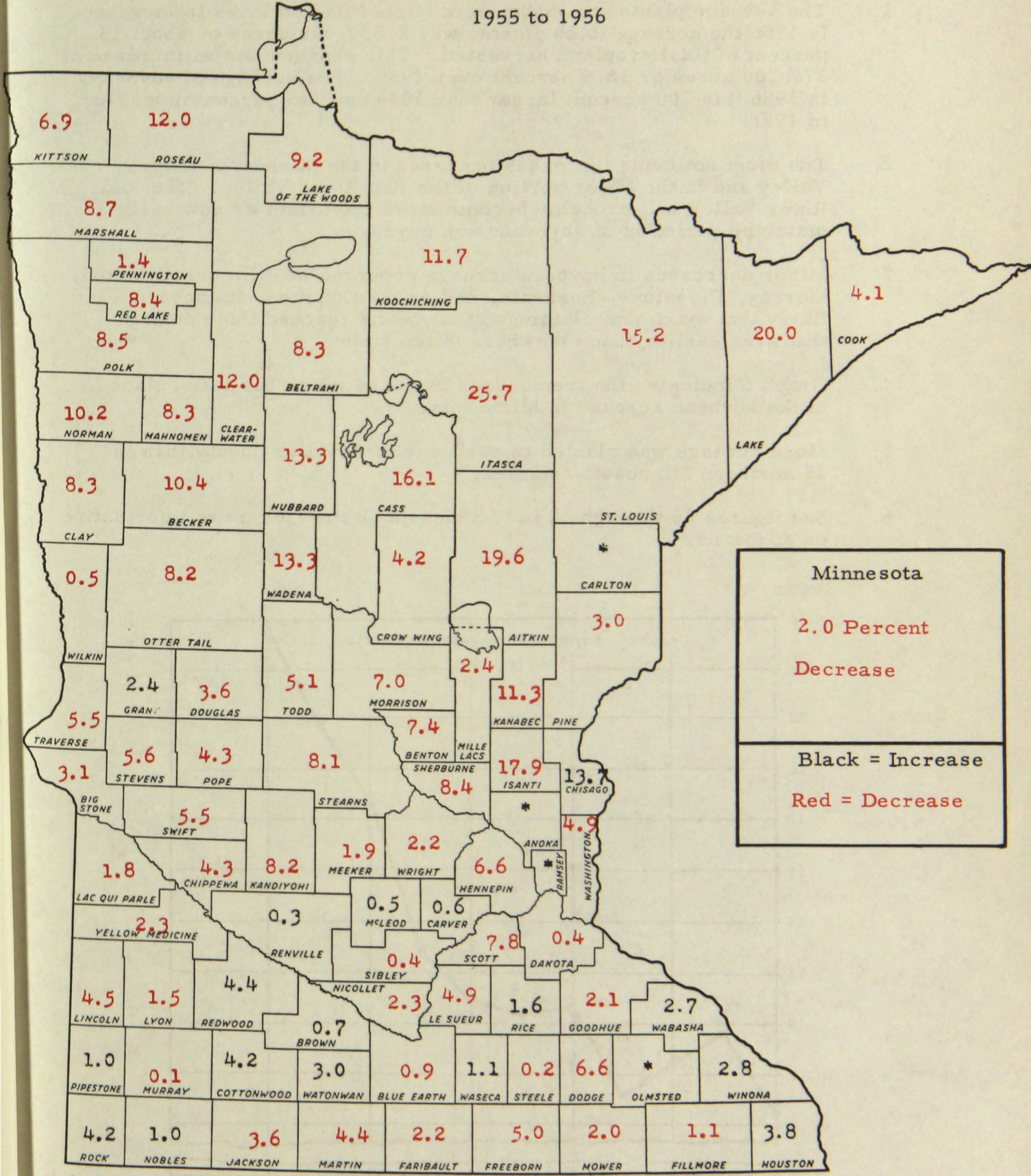




Figure 6. Percentage Change in Number of Hens (Chicken) on Farms in May, 1955 to 1956



Minnesota  
 2.0 Percent  
 Decrease

---

Black = Increase  
 Red = Decrease

\* Comparable Data not available

Figure 7

1. The acreage planted to soybeans in Minnesota continues to increase. In 1956 the acreage to be planted was 2,559,600 acres or about 13 percent of total cropland harvested. This represented an increase of 370,200 acres or 16.9 percent over 1955. The acreage of soybeans in 1956 was 200 percent larger than 1946 and 145 percent more than in 1951.
2. The most noticeable increases occurred in the Minnesota River Valley and in the lower portion of the Red River Valley. The Red River Valley will probably become more important as new early maturing varieties of soybeans are developed.
3. Minor decreases in soybean acreage occurred in Fillmore, Olmsted, Murray, Pipestone, Hennepin, and Anoka Counties. It appears likely that maximum plantings of soybeans reached their peak in that area earlier than elsewhere in the state.
4. Graph 6 indicates the tremendous increase which has taken place in the soybean acreage in Minnesota.
5. More acreage was planted to soybeans in Renville County than in 25 northern Minnesota counties.
6. See figures 26 through 30 in "Minnesota Crops" for more information on soybeans.

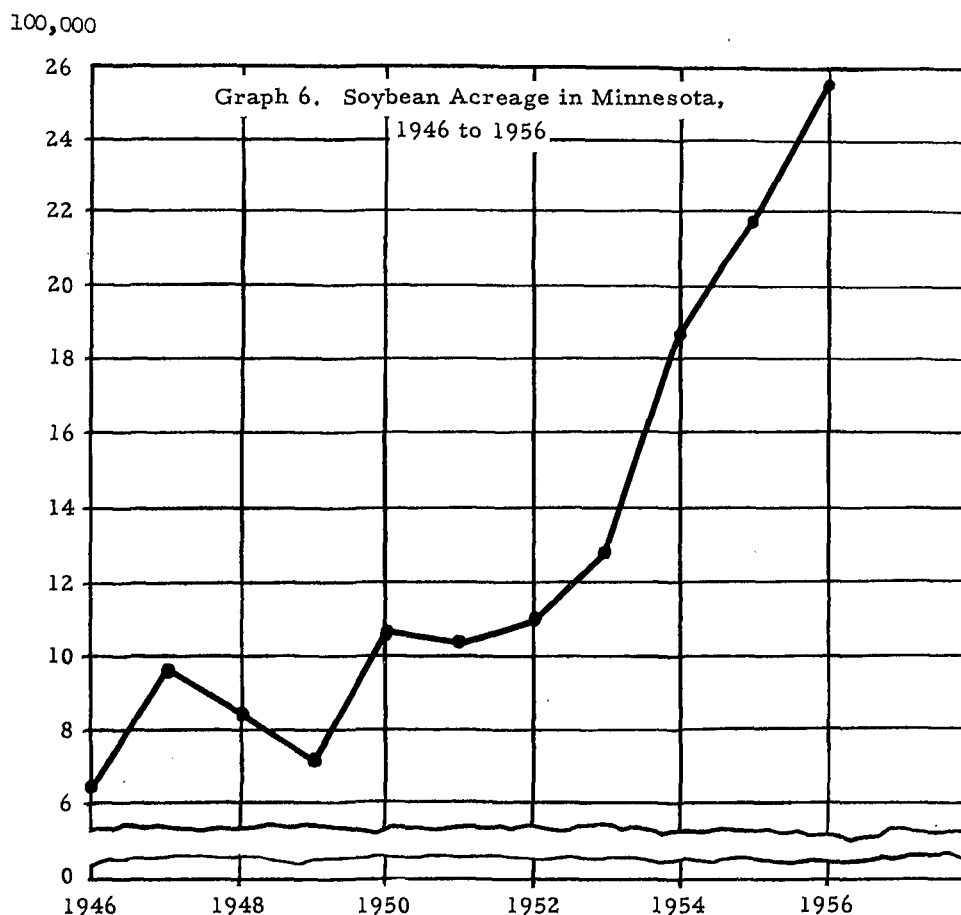
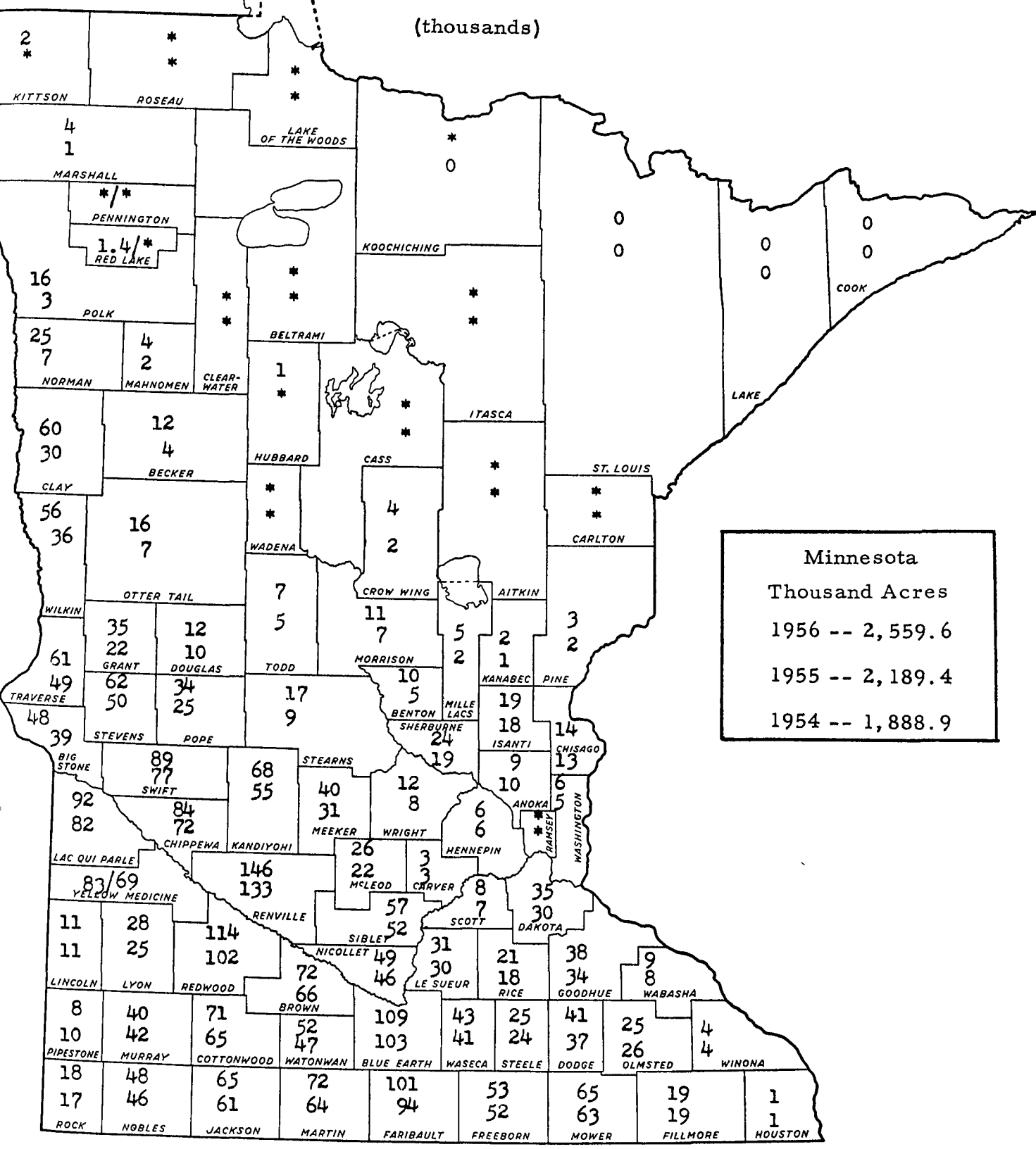


Figure 7. Soybean Acreage to be Planted

Top Figure = 1956

Bottom Figure = 1955

(thousands)



Minnesota  
 Thousand Acres  
 1956 -- 2,559.6  
 1955 -- 2,189.4  
 1954 -- 1,888.9

\* Less than 50 acres of soybeans

Figure 8

1. The importance of alfalfa for hay as a forage crop has increased steadily over the past ten years. In 1946 alfalfa made up 22.1 percent of the hay cut compared to 56.6 percent in 1956 (see Graph 7).
2. The percent of hay cut as alfalfa is greatest in southern Minnesota and lowest in northeastern Minnesota. Low alfalfa acreage in northeastern Minnesota is due largely to costly lime applications that are necessary for good stands in this area. Since hay yields are fairly low <sup>1/</sup> and hay is the most important crop <sup>2/</sup>, there is a need for a high-yielding, acid soil-loving legume if this area is to be competitive in agriculture with other areas of the state and nation.

<sup>1/</sup> Figure 7, "Minnesota Crops"

<sup>2/</sup> Figure 8, "Minnesota Crops"

Percent

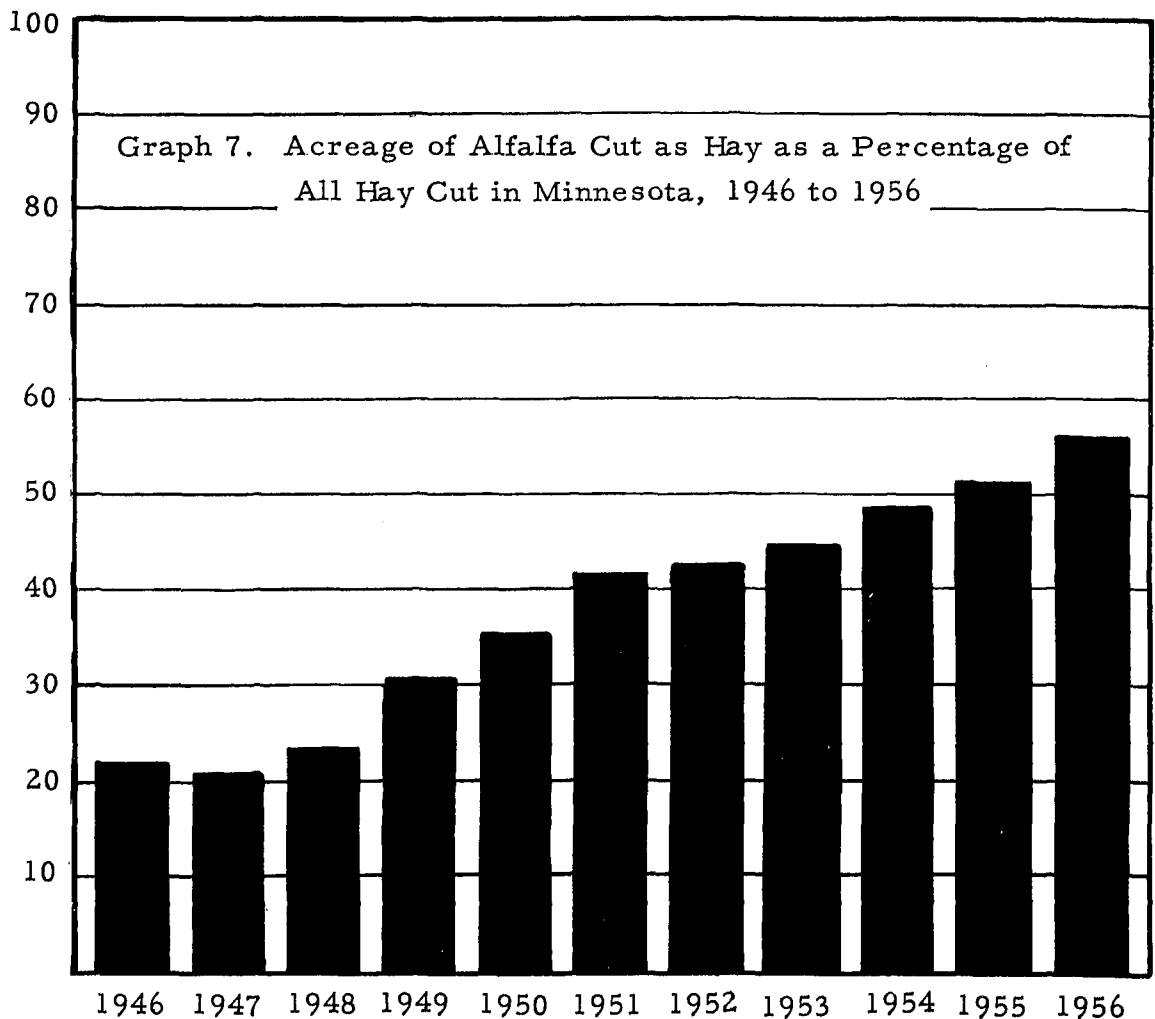


Figure 8. Acreage of Alfalfa as a Percentage of all Hay Cut in 1956

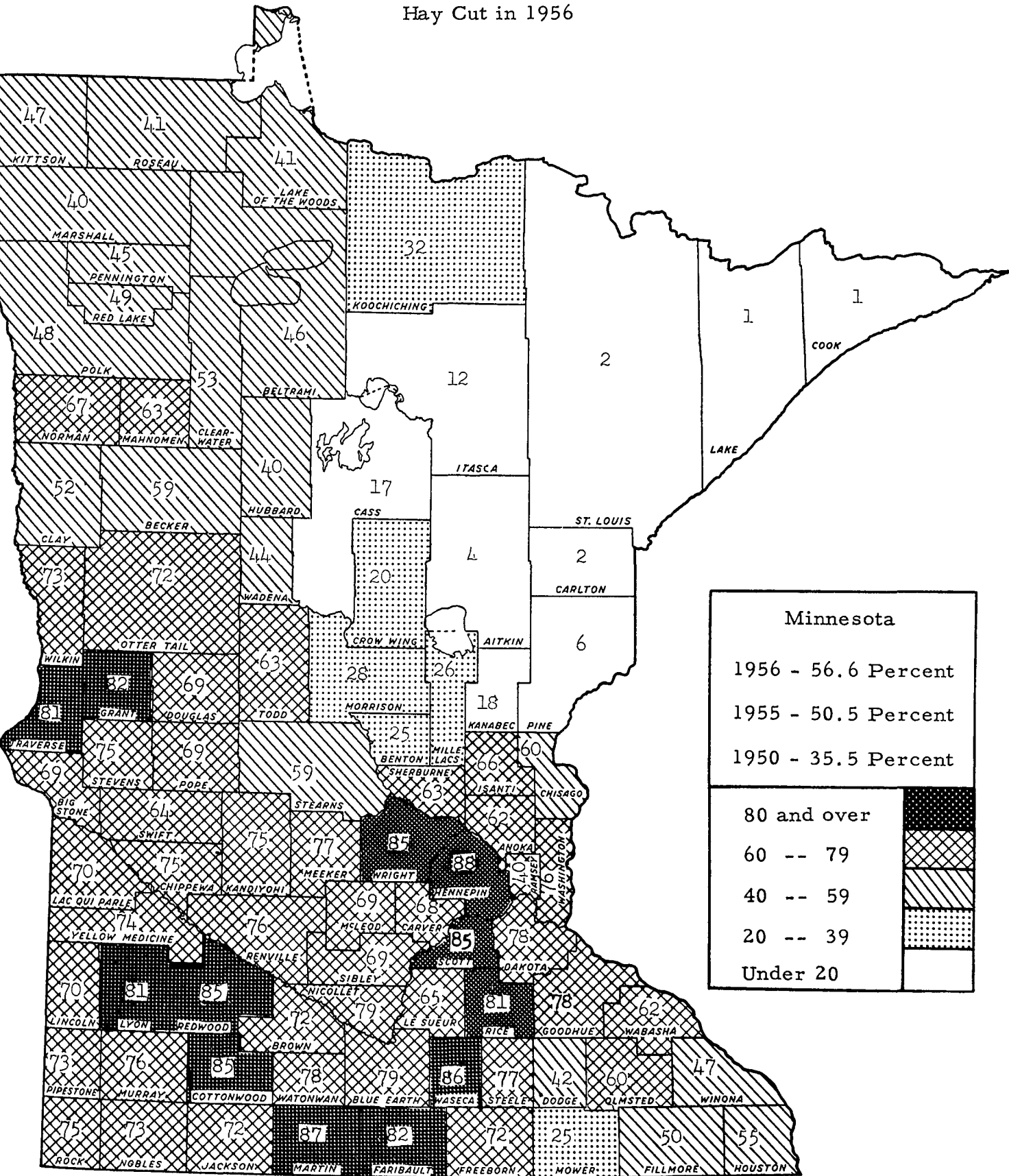


Figure 9

1. The total population of Minnesota increased 8.9 percent from 1950 to 1956. This change in population varied from 71.8 percent increase in Lake County to 10.8 percent decrease in Red Lake County.
2. All the counties in southern Minnesota except Jackson, Rock, Sibley, and Lac Qui Parle Counties increased in population. All the counties in the Red River Valley except Clay, Polk, and Pennington Counties decreased.
3. Counties showing largest increases in population are around the Twin Cities and up along the Lake Superior Taconite ore development area.
4. One of the factors causing the decreases in population in many of the rural counties was the decrease in the number of people living on farms (see graph 8 and figure 10).

Thousand

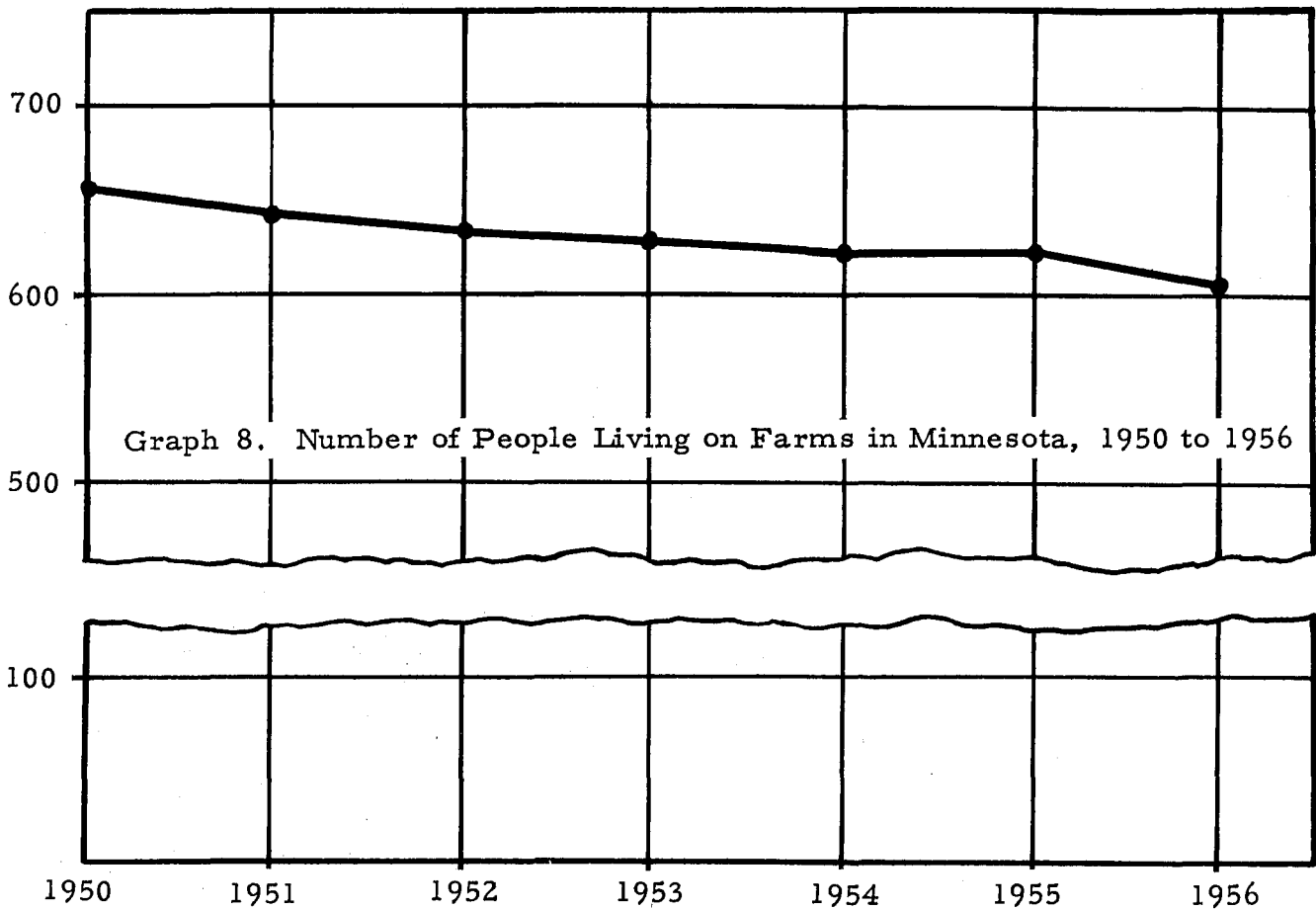


Figure 9. Percentage Change in Total Population

April 1, 1950 to April 1, 1956.

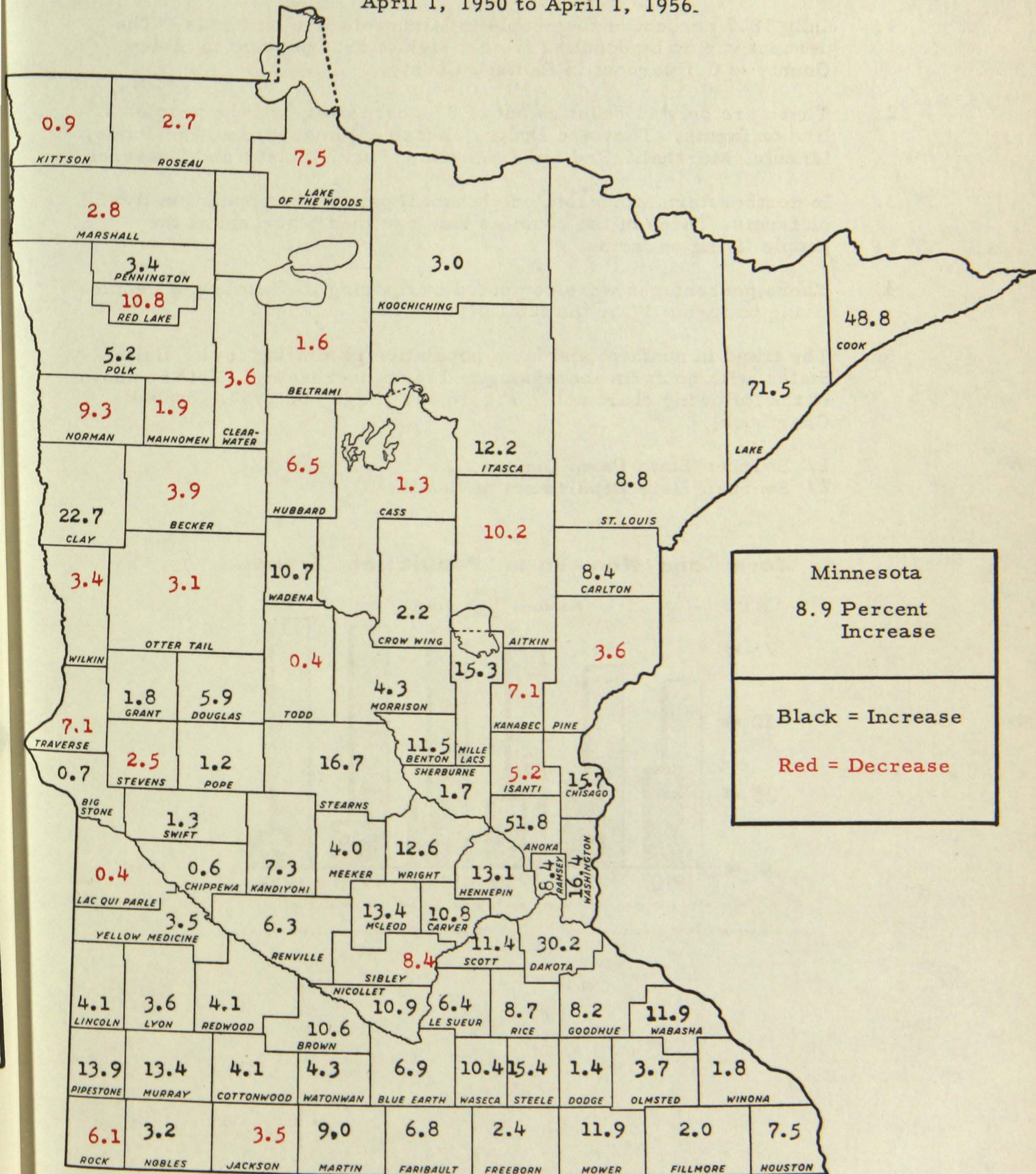


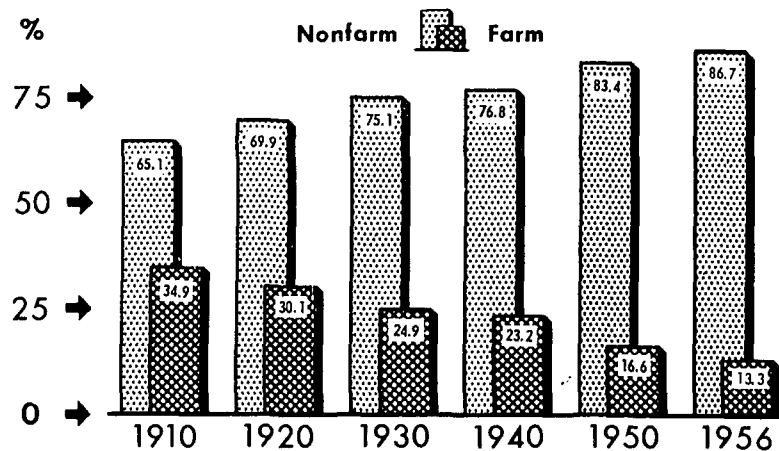
Figure 10

1. Only 18.7 percent of the people in Minnesota live on farms. The percent varied by counties from a high of 59.4 percent in Sibley County to 0.1 percent in Ramsey County.
2. There are only 11 counties out of 87 where over half the people live on farms. They are Dodge, Jackson, Kanabec, Lac Qui Parle, Lincoln, Marshall, Red Lake, Roseau, Rock, Sibley, and Traverse.
3. In northeastern Minnesota only a small part of the population live on farms. Three of the counties had less than 5 percent of the people living on farms.
4. These percentages were computed by dividing the number of people living on farms 1/ by the total population 2/.
5. The trend in nonfarm and farm population is similar in the United States with nonfarm increasing and farm decreasing. This is shown in the following chart and in Figure 11. (Page 26, 1957, Outlook Chartbook).

1/ Source: State Farm Census.

2/ Source: State Department of Health.

### Farm and Non - Farm Population Trends



TOTAL POPULATION IN MILLIONS: 1910, 91.9; 1920, 106.1; 1930, 122.0; 1940, 131.0; 1950, 151.1; 1956, 167.4



Figure 10. Percentage of Total Population Living on Farms

1956

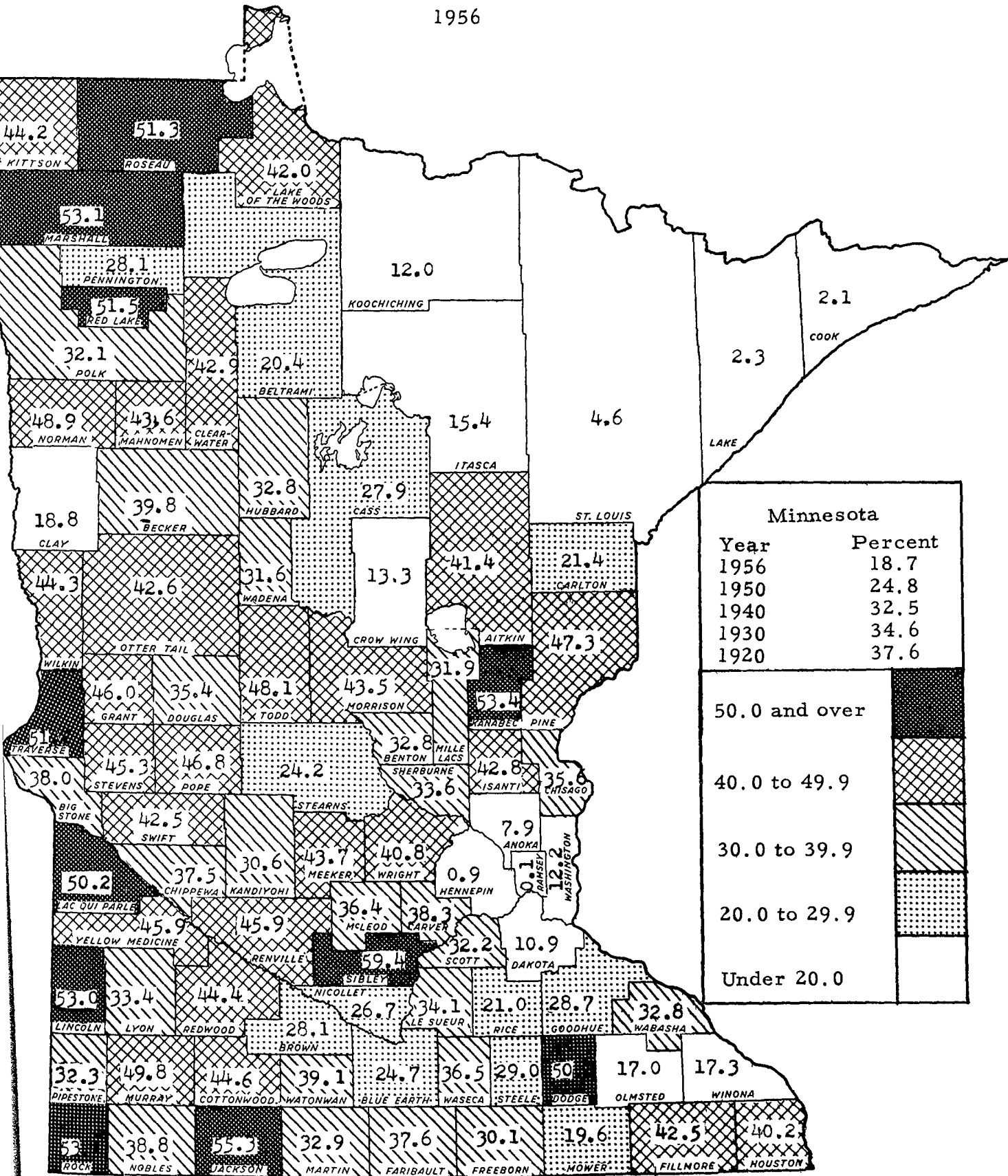
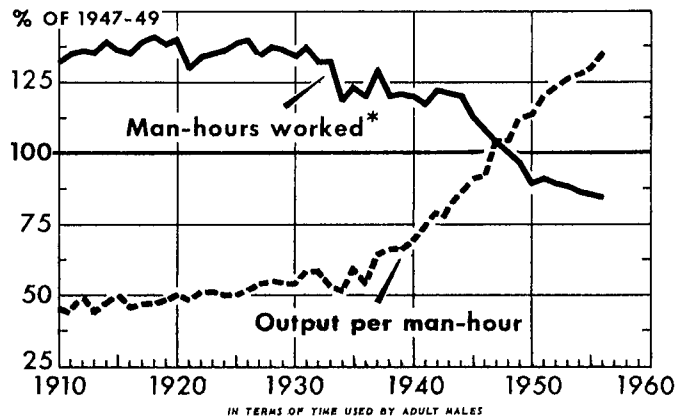


Figure 11

1. This figure shows the change in proportion of people living on farms from 1950 to 1956. Only Rock County failed to show a decrease between these six years.
2. These percentage point changes were obtained by comparing the percent of rural farm population as reported in the 1950 Census of Agriculture with the percent of people living on farms as computed in figure 10.
3. In Mille Lacs and Aitkin Counties the percentage decrease is especially large.
4. You may wonder how it is that the number of people living on farms continue to decrease while total population is increasing. This is possible because farm output per man hour in the United States has made tremendous increases since 1940 as shown in the following chart (page 15, 1957, Outlook Chart Book).

**Farm Output Per Man Hour**

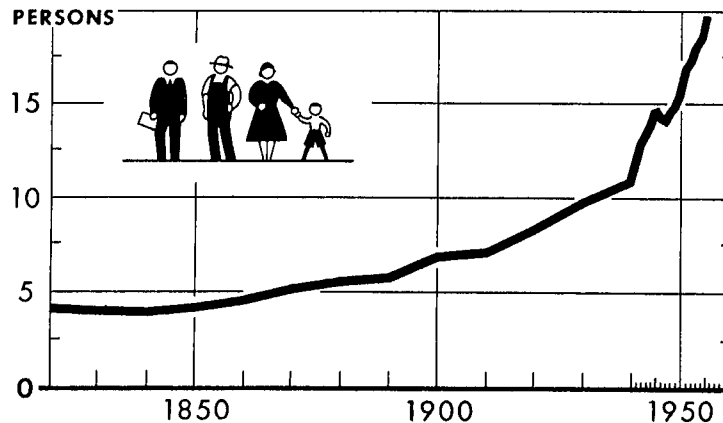


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5. This increased output has increased the number of persons supported by one farm worker in the United States from less than 5 before the Civil War to 19 now. This is shown in the following chart and the table in the note of figure 12 (page 15, 1957, Outlook Chart Book)

**Persons Supported by One Farm Worker**

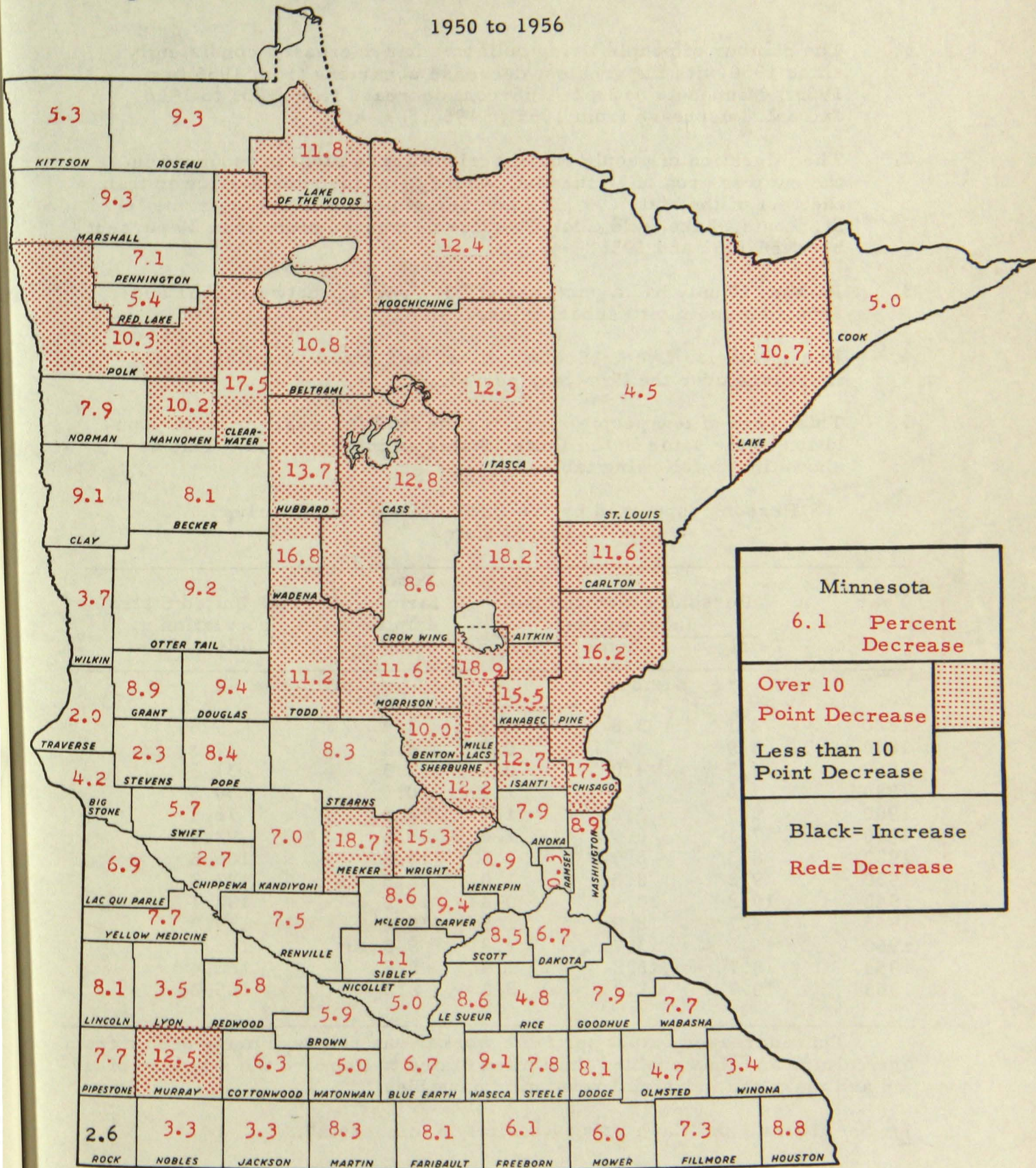


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Figure 11. Change in Percentage of Total Population Living on Farms

1950 to 1956



Minnesota  
6.1 Percent Decrease

Over 10 Point Decrease

Less than 10 Point Decrease

Black= Increase  
Red= Decrease

Figure 12

1. The number of people living on farms has decreased consistently since 1950 with the greatest decrease occurring from 1955 to 1956. Minnesota had a 6.1 percent decrease from 1951 to 1956 and a 2.8 decrease from 1955 to 1956.
2. The migration of people out of agriculture is most pronounced in the cutover area of Minnesota, where farm incomes are lower than the rest of the state <sup>1/</sup>. The number of people living on farms in St. Louis, Lake, and Cook Counties decreased more than 20 percent between 1951 and 1956.
3. Ramsey County had a decrease of 53.2 percent between 1951 and 1956, due mainly to suburban expansion.
4. Rock, Nobels, Lyon, Nicollet, Rice, and Anoka Counties slight increases over the five-year period.
5. This trend of few people supplying the food for a larger total population is the same in the United States as in Minnesota. This is shown in the following table.

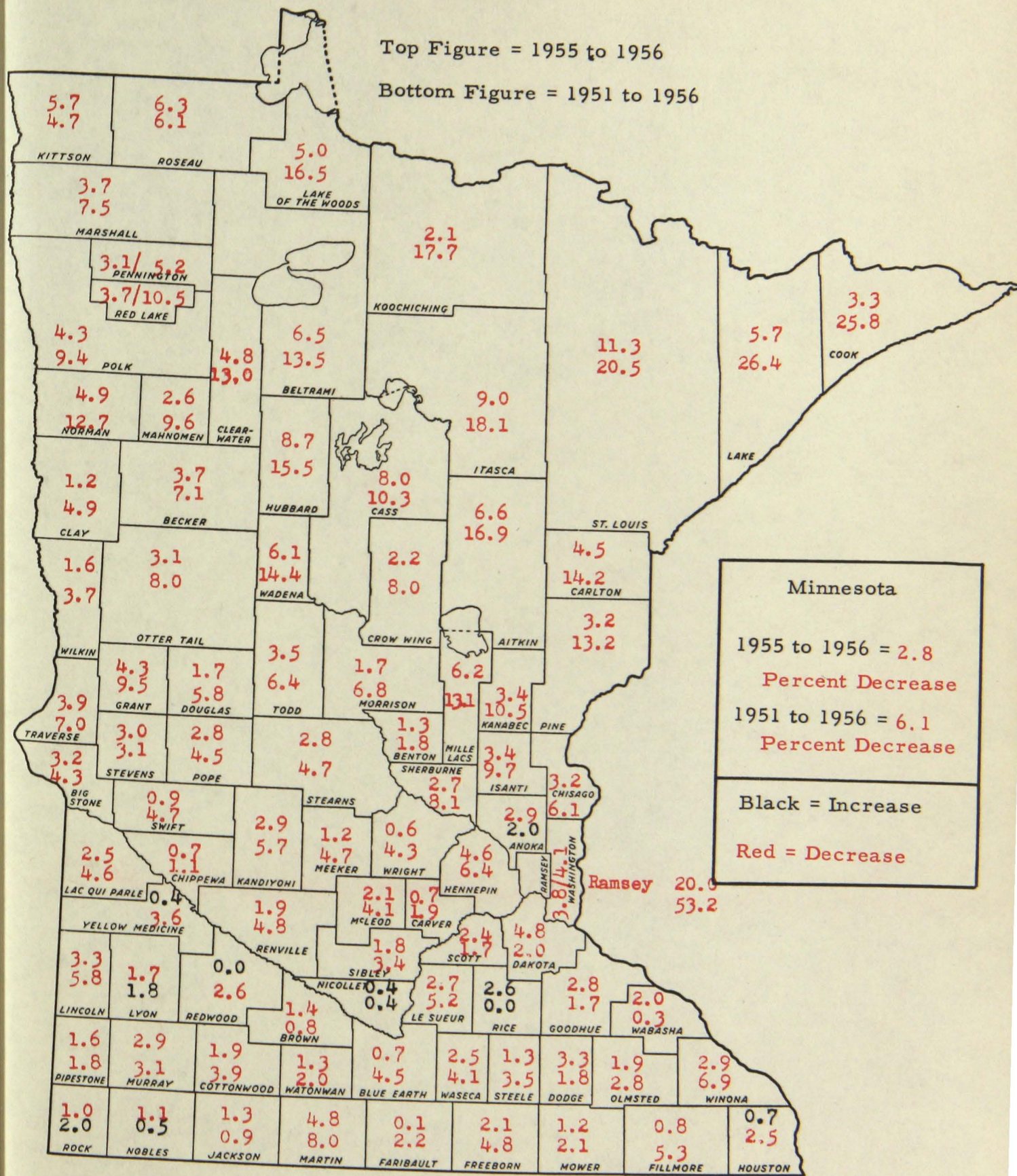
Persons supported by production of one farm worker,  
United States

| Year | Persons supported per farm worker |         |        | Total farm employment | Total United States population July 1 <sup>1/</sup> |
|------|-----------------------------------|---------|--------|-----------------------|---|
|      | Total                             | At home | Abroad |                       |   |
|      | number                            |         |        | millions              |   |
| 1820 | 4.1                               | 3.8     | 0.3    | 2.4                   | 9.6   |
| 1840 | 3.9                               | 3.7     | 0.2    | 4.4                   | 17.1  |
| 1860 | 4.5                               | 4.0     | 0.5    | 7.3                   | 31.5  |
| 1880 | 5.6                               | 4.5     | 1.1    | 10.1                  | 50.3  |
| 1900 | 6.9                               | 5.2     | 1.7    | 12.8                  | 76.1  |
| 1910 | 7.1                               | 6.1     | 1.0    | 13.6                  | 92.4  |
| 1920 | 8.3                               | 6.9     | 1.4    | 13.4                  | 106.5   |
| 1930 | 9.8                               | 8.8     | 1.0    | 12.5                  | 123.2   |
| 1940 | 10.8                              | 10.4    | 0.4    | 11.0                  | 132.1   |
| 1945 | 14.7                              | 12.9    | 1.8    | 10.0                  | 139.9   |
| 1950 | 15.5                              | 13.7    | 1.8    | 9.3                   | 151.7   |
| 1954 | 18.7                              | 16.8    | 1.9    | 8.5                   | 162.4   |
| 1955 | 19.7                              | 17.7    | 2.0    | 8.2                   | 165.2   |

This increased output per farm worker has released many people from agriculture and thus enabled the United States to improve the standard of living and make the industrial revolution possible.

<sup>1/</sup> See figure 1 in "Cash Farm Receipts in Minnesota".

Figure 12. Percentage Change in Number of People Living on Farms



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