1-1957

The Economic Strength of South Dakota's Agriculture

G. Lundry
South Dakota State University

R. L. Berry
South Dakota State University

CIRCULAR 132 JANUARY 1957

The Economic Strength of South Dakota's Agriculture

as measured by

farm mortgage foreclosures

1921-55

ECONOMICS DEPARTMENT

AGRICULTURAL EXPERIMENT STATION

SOUTH DAKOTA STATE COLLEGE, BROOKINGS

Contents

THE ECONOMIC STRENGTH OF SOUTH DAKOTA'S AGRICULTURE

as measured by farm mortgage foreclosures, 1921-55

GABRIEL LUNDY AND R. L. BERRY[1]

Introduction

What is the economic strength of South Dakota's agriculture? How may its stability and financial strength be increased? The purpose of this circular is to answer these questions by examining the trends in farm mortgage foreclosures and other factors indicating the strength of agriculture from 1921 to 1955.

Unfortunately there is not available any single measure of economic and social welfare. High prices and low costs do not necessarily mean high profits. Drouths, hail, diseases, and insects may reduce production. On the other hand, high production with low prices and high costs may be equally unsatisfactory. A high degree of farm ownership by the farmers themselves usually indicates a prosperous agriculture, but some tenants have higher farm incomes than do some owners. On the other hand, tenants often lose some of the satisfactions and social values which are found in farm ownership.

Foreclosures Indicate Distress

Because most of the farm and ranch land in South Dakota is in private ownership, the number of farm mortgage foreclosures started in any given year has been an indicator of the extent of severe economic distress among farmers. Thus, in the past, the lack of farm foreclosures has been an indication of the financial strength of South Dakota's agriculture.

But the lack of farm mortgage foreclosures is not a perfect indicator of the economic strength of agriculture. Farmers may suffer from low incomes and be forced to lower their level of living for several years to avoid foreclosure. Until the farmers' resources are exhausted,

[1]Economist and Associate Economist, respectively, South Dakota State College Agricultural Experiment Station.

this hardship will not usually be indicated by mortgage foreclosures. Also, present land prices make voluntary sales or transfers practical as a means of avoiding foreclosure. Nonetheless, a downward trend in farm mortgage foreclosures may indicate that the number of farmers on the verge of foreclosure is decreasing.

Likewise an upward trend in the number of foreclosures may indicate that such financial hardships are increasing as a result of cost-price relationships and production conditions. Therefore, the trends in farm mortgage foreclosures are well worth watching by those concerned with the economy and well being of South Dakota's agriculture.

Farmers Need Information

More fundamentally, large numbers of farm mortgage foreclosures often indicate that farmers and ranchers have misjudged the earning power of their land.

The early homestead laws, designed for more eastern conditions, encouraged settlement of the land in units too small to support families and pay debts incurred in developing the land. Competition among farmers, ranchers, and others for land often bid land prices up to the point where the likelihood of mortgage foreclosure was extremely high. Such a situation not only increased the danger of mortgage foreclosure but it seriously reduced the level of living of the farm family. Such competition for land often resulted in the land being divided into uneconomic units which further increased the risks of foreclosure.

Even when operators have judged correctly the long-run earning powers of their farms, they have often been surprised by price depressions, drouth, insect or dis-

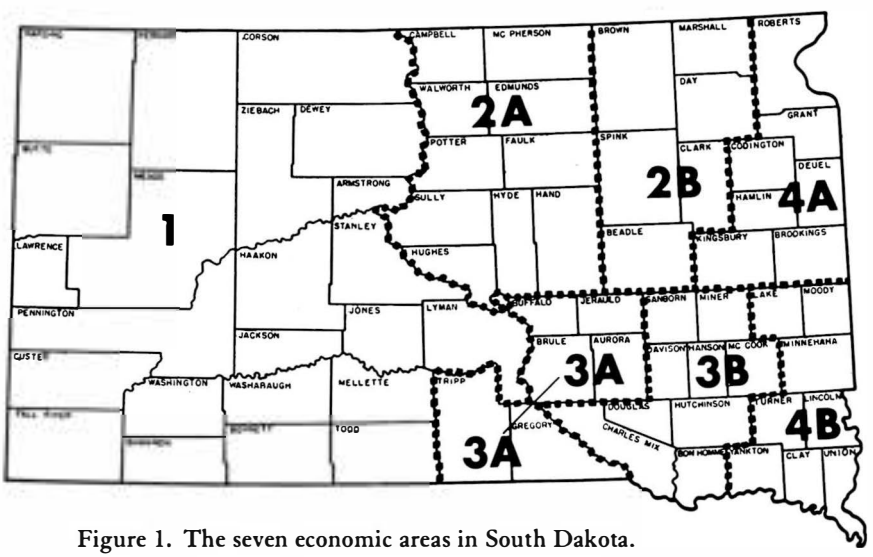

Figure 1. The seven economic areas in South Dakota.

ease problems, which have made them unable to meet their interest and principal payments.

An upward trend in farm mortgage foreclosures often indicates that farmers and ranchers have lacked information about the future productivity of their land, the future prices of their products, and the costs of producing them.

While precise information on these factors is difficult to obtain, much research of the Agricultural Experiment Station is directed along these lines. Soil surveys, weather studies, crop and livestock production experiments, disease and insect control work, cost studies, and estimates of expected price relationships are a few of the activities which will make estimates of the future earning capacity of land more certain. Even then the risks will be great since booms and depressions cannot yet be exactly predicted nor wholly controlled.

Mortgage Foreclosure Trends

Because farm mortgage foreclosures have been an indication of severe economic distress in agriculture it is pertinent to ask: What have been the trends in farm mortgage foreclosures from 1921 to 1955? The purpose of this section is to answer this question by presenting additional information on the number of farm mortgage foreclosures.[2]

Collecting the Data

The farm mortgage foreclosure data were obtained by sending questionnaires to the County Register of Deeds in each of the organized counties of the state. When necessary the foreclosure information was obtained by a personal visit of someone representing or cooperating with the Agricultural Economics Department. The first data were collected in 1932, and since then questionnaires have been mailed annually.

The data secured were the number of farm mortgage foreclosures initiated but not necessarily completed. As is indicated by the last column of appendix table 1, the number of redemptions was not secured for 1950. As a general index of distress in agriculture, foreclosures started seems sufficient to indicate the amount of distress and the general trend.

As will be shown, there has been considerable variation in mortgage foreclosures in the seven economic areas of the state (see figure 1). The data presented in this publication permit the analysis of these important differences.[3]

[2]For previously published reports see Harry A. Steele, *Farm Mortgage Foreclosures in South Dakota, 1921-1932*, S. D. Agr. Exp. Sta. Circ. 17, 1934; Gabriel Lundy, "Farm Mortgage Foreclosures in South Dakota," a series of mimeographed supplements to Circular 17 bearing the same title issued annually (except 1940) from 1938 to 1946; Gabriel Lundy and Ray F. Pengra, "Farm Mortgage Foreclosures in South Dakota, 1921-1949," Revised supplement to Circular 17, 1950; and Gabriel Lundy, *Farm Mortgage Experience in South Dakota*, Bulletin 370, 1943. See also: Sherman E. Johnson and Harry A. Steele, *Some Aspects of the Farm Mortgage Situation* . . . S. D. Agr. Exp. Sta. Circ. 9, 1933.

[3]Crop reporters cooperating with the South Dakota Crop and Livestock Reporting Service have been asked to report the number of var-

Foreclosures 1921-55

The trend in the annual number of farm mortgage foreclosures initiated in South Dakota can be seen in figure 2. Two major peaks were reached—one in 1924 and the other in 1932. A peak of 3,709 foreclosures involving 836,000 acres of land was reached in 1924 (see appendix table 1). Then the number of foreclosures gradually declined to 1,749, involving 383,000 acres of land in 1930. However, the next year the number of foreclosures almost doubled. By 1932, a record peak was reached with 3,864 foreclosures started on 850,826 acres of land. Since 1932 the trend has been downward except for a large increase in 1935. Beginning in 1940 the number of foreclosures started has decreased rapidly, with less than 20 per year being initiated since 1946. In 1955 only 11 farm mortgage foreclosures were started and 5 of these were redeemed.

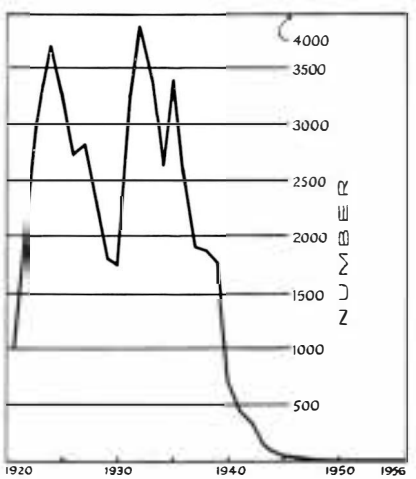

Figure 2. Farm mortgage foreclosures started annually in South Dakota.

Stated differently, after 1942 the number of initiated foreclosures declined to less than 12 percent of the 1921-55 average (see appendix table 1). In terms of acres, after 1942 the initiated foreclosures fell to less than 10 percent of the average acreage on which foreclosures were started annually during 1921-55.

In 1924, 22.5 out of each 1,000 acres of assessed land in South Dakota were involved in foreclosure proceedings, as is shown in figure 3. Again, a peak was reached in 1932 when 23 per 1,000 acres were involved in foreclosure proceedings. From 1945 to 1955 less than one-half acre per 1,000 acres of the assessed farmland in the state was involved in farm mortgage foreclosure. There appears to have been no significant upward trend since 1938.

Farm Foreclosure Trends by Areas

While the number of farm mortgage foreclosures was quite high during 1921-40, the degree of distress varied by economic areas. There are, of course, wide differences in soils, precipitation, length of growing season, and other physi-

Footnote 3 *(continued)*

ious classes of transfers that have occurred within a group of farms surrounding their own farm. Included are assignment to creditors and other transfers to avoid foreclosure as well as bona fide foreclosures. Because of this, their figures are considerably larger than those reported in this publication. Because these figures cannot be presented by economic areas, the present study has the advantage of relating the number of foreclosures to the widely different physical and economic conditions in the different areas of the state. The estimates of the crop reporters can be found in the annual reports of Crop and Livestock Reporting Service.

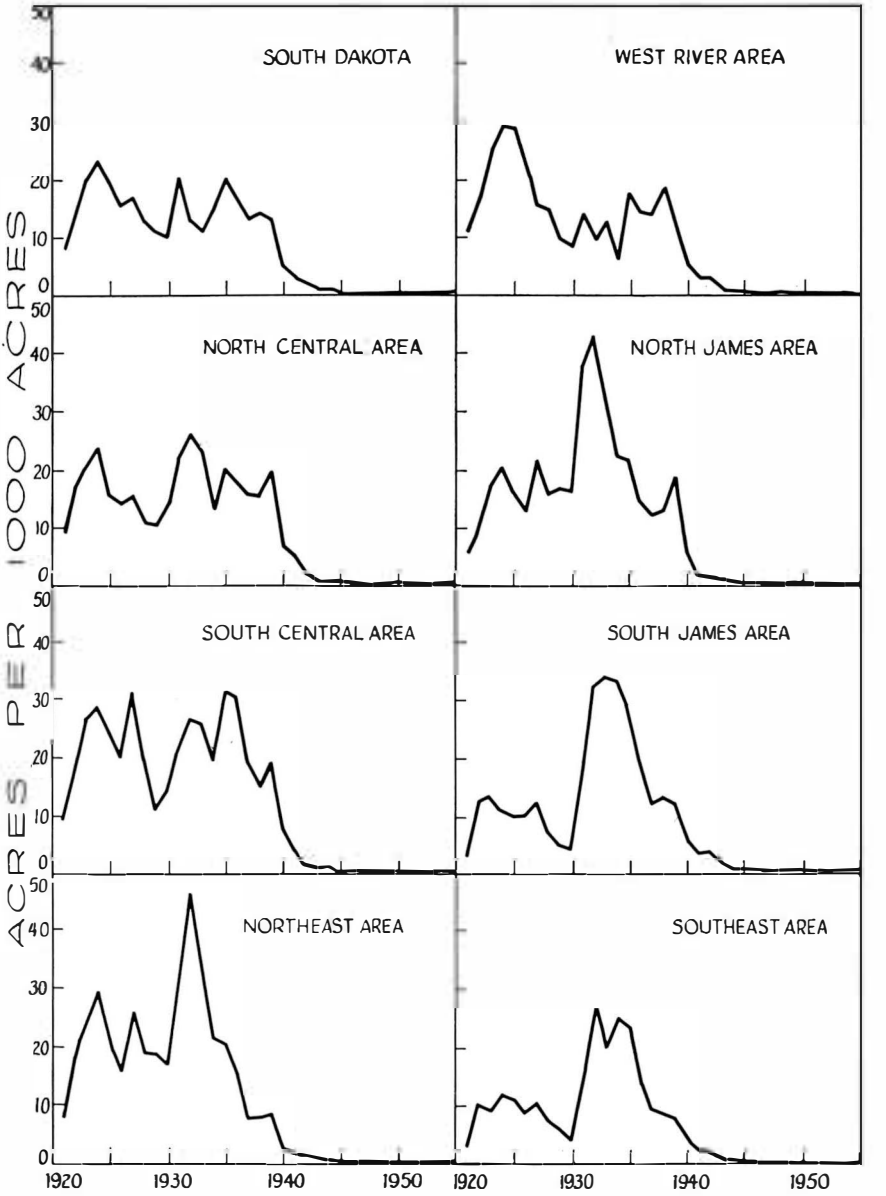

Figure 3. Acres per 1,000 acres of assessed land on which farm mortgage foreclosures were started by economic areas, South Dakota, 1921-55.

cal factors affecting production on farms and ranches in the various economic areas of South Dakota. It appears that operators and lenders misjudged the capabilities of South Dakota agriculture as they moved westward from more humid areas. Many farms were too small considering the productivity of the land.

The variations in rate of foreclosure per 1,000 acres of assessed farm land by areas can be seen in appendix table 2 and figure 3. This figure shows the acreage involved in farm mortgage foreclosures per 1,000 acres of assessed land for the respective areas during 1921-55. It shows the West River Area, South Central Area, and Northeast Area had peaks considerably higher than the other areas of the state.

Because these seven areas vary widely as to total size, assessed acres, and number of farms, comparing the actual number of foreclosures started is not a satisfactory method of comparing the distress of farmers in the various areas. That is why foreclosures are expressed in terms of acres foreclosed per 1,000 acres of assessed land in figure 3. Another way of comparing the areas is in the percentage that the total number of foreclosures during the 1921-30 period is of the total farms in the area in 1920. This has been done in figure 4.

During the 1930's Area 1, the West River Area, because of its large size, still had the largest number of farm mortgage foreclosures, with an average of 512 being started each year. The total number of foreclosures was 27 percent of the total number of farms and ranches in the area in 1930. But this rate of foreclosure was exceeded in every other area of the state except Area 4b in southeastern South Dakota. The total number of foreclosures started in each area during 1931-40 as a percentage of the number of farms in the respective areas in 1930 is also shown in figure 4.

This figure suggests that farmers in Area 1 had continued to make adjustments to their physical and economic environment after 1930 but that drouths and depression were then having their effects in the small grain areas of central and northern South Dakota.

Mortgage Relief Legislation

The farm mortgage distress during the 1920's led to considerable legislation at both the state and national level to relieve hardship caused by mortgage foreclosure.

In South Dakota the 1933 Legislature increased the period of redemption of units on which mortgage foreclosures had been started and abolished deficiency judgments.

Redemption of land on which mortgage foreclosures had been started was extended 1 year if the operator paid all taxes and interest due, paid interest 1 year in advance, and met certain other conditions.[4]

Also in 1933, Congress enacted section 75 a-r of the U. S. Bankruptcy Laws to enable operators to improve their financial position and to

[4]For further details on State Legislation see Session Laws of 1933, Ch. 137, 138; 1935, Ch. 178, 150; 1937, Ch. 207, or South Dakota Code 1939, Ch. 37, 29-30.

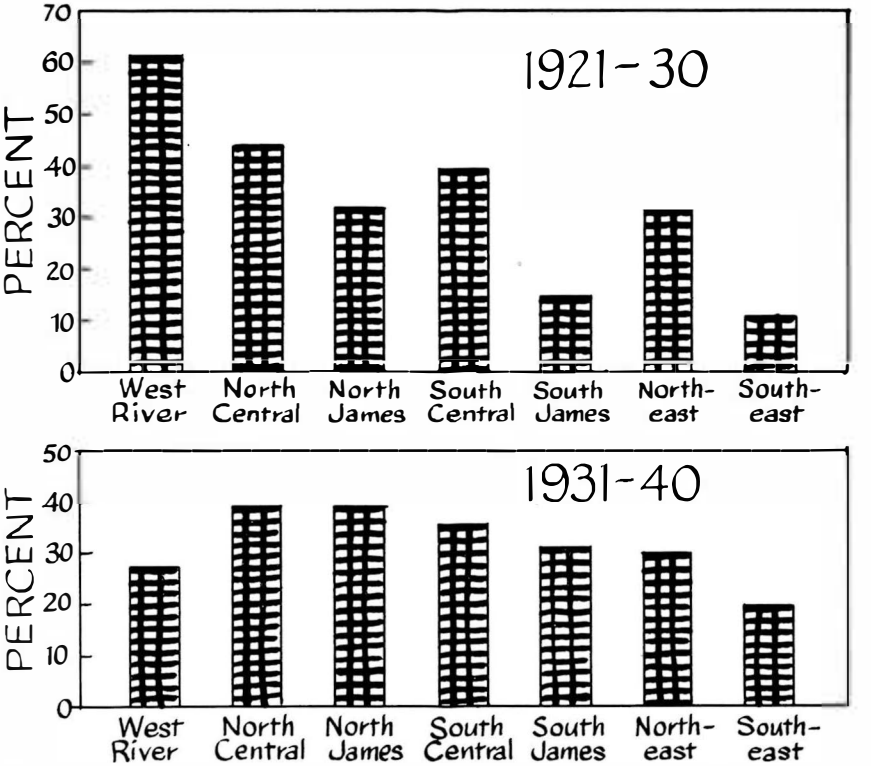

Figure 4. Foreclosures initiated as a percentage of all farms by areas, South Dakota, 1921-30 and 1931-40.

keep their farms and ranches. The next year Congress enacted the controversial Moratorium Provision or the Frazier-Lempke Act (75-s) which was declared unconstitutional in May 1935. A new subsection was then adopted in August 1935 and was declared constitutional in 1937.

The State Legislature adopted the first mortgage moratorium legislation in 1935. It provided a 2-year extension of redemption and left most of the conditions up to the court. It also amended the deficiency judgment provisions. In 1937 the Legislature re-enacted the mortgage moratorium legislation and again modified the laws concerning deficiency judgments. The moratorium legislation was declared constitutional but it was allowed to expire in 1939. However, the 1933 act providing for a 1-year extension on redemptions is still in force as are the provisions regarding deficiency judgments.

Congress allowed Section 75 to expire in 1949. This leaves farmers and ranchers without special bankruptcy legislation. However, they may make use of Chapter 12 of the

U. S. Bankruptcy Laws which applies to real property arrangements of persons other than corporations. Since 1951 several bills dealing with farm mortgage and farm debtor relief have been passed by the Senate of the 81st, 82nd, and 83rd Congress but failed to be adopted by the House.

Between 1928-52 there were only 792 farm bankruptcies. Of these only 251 were carried out under the provisions of Section 75. These cases reached a peak of 91 cases in 1934 and declined rapidly after 1935.[5] Thus, the total effect of Section 75 in relieving farmers and ranchers in financial distress appears to have been quite small considering the number of mortgage foreclosures under way.

The state moratorium and the deficiency judgment legislation probably was more effective. Perhaps this legislation may have discouraged the initiation of mortgage foreclosure proceedings in some instances and, hence, may have been more beneficial to operators than is indicated by the cases involved.

There has been a downward trend in the percent of all farms mortgaged from 1930 to 1950. Also, mortgage debt was only 25 percent of the value in 1950 as compared with 57 percent in 1940. These changes are shown in table 1. Unfortunately, figures for 1955 are not available. However, the outstanding farm mortgage debt of South Dakota has increased from $88 million in 1950 to $117 million in 1955 (see figure 5). This is an increase of $29 million or 33 percent in 5 years. Hence, there is little doubt that both the number of mortgages and the amount per mortgage has increased.

The fact that there have been relatively few farm mortgage foreclosures since 1940 should not be taken as an indication that there is no distress in agriculture today. With a strong land market many farmers in difficulty simply sell their farms or assign the title to their creditors to avoid foreclosure. Hence, mortgage foreclosure rates are not now as good an indicator of financial

[5]For a study of the effect of state and national legislation on farm and ranch bankruptcies see James Munger, *A Preliminary Study of Farmer Bankruptcy Experience in the Dakotas, 1928-52, S. D.* Agr. Exp. Sta. Agr. Econ. Pamphlet 61, 1955.

Table 1. The Trend in Farm Mortgage Indebtedness, South Dakota, 1930-50

Year	No. of Mortgaged Farms		Land in Mortgaged Farms, Acres	Value of Mortgaged Farms, Total	Av. Farm Mortgage Debt		Ratio of Debt to Value, %
	Total	% of All Farms			Per Farm	Per Acre	
1930	46,041	55			$6,366		
1935	37,436	45			5,786		
1940	29,700	41	12,870,882	$225,875,028	4,300	$9.92	57
1945	29,319	43	15,457,023	297,560,000	3,641	6.91	36
1950	19,662	30	10,714,900	349,616,000	4,452	8.17	25

Source: "1950 Farm-Mortgage Debt," USDC and USDA, page 16.

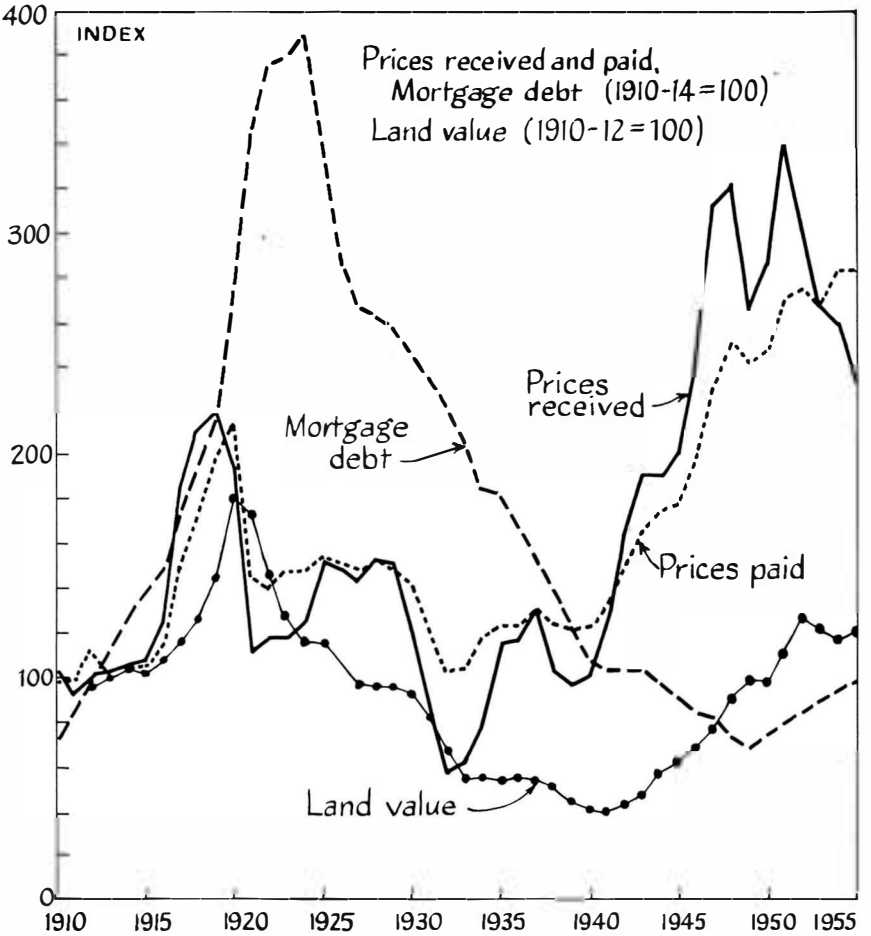

Figure 5. Relation of prices received and prices paid by farmers to farm mortgage debt and land values, South Dakota, 1910-55.

distress as they were before 1940.

To summarize, the two decades, 1921 to 1940, appear to have been periods of severe financial distress for farmers and ranchers—particularly those in the central and western part of the state. It is equally apparent that after 1940 farm mortgage foreclosures soon dropped to the vanishing point and have remained there. The remainder of this circular will deal with the causes of these fluctuations in mortgage foreclosures and some proposals often made to prevent their recurrence.

Causes of Farm Mortgage Foreclosures in South Dakota

The cause of farm mortgage foreclosures is closely related to a failure to estimate the future incomes which can be expected from land. This, in turn, is related to yields per acre, total production, size of farm, farm product prices, and costs.

Weather and Yields

Many of the failures and much of the farm mortgage foreclosure appear to stem from over-optimism of settlers regarding expected yields.

The annual precipitation was above normal from 1900 to 1910 when much of the remaining land was finally settled. In fact, precipitation was generally good until 1920 and, along with the high wartime prices, no doubt played an important role in the boom in land values. During World Wars I and II, precipitation was above normal in South Dakota and good crops were harvested.

Since 1946 the trend in precipitation has been downward as can be seen in figure 6. This short record might suggest that the precipitation follows rather definite cycles and that rainfall in South Dakota may be below average for the next few years. However, the idea that precipitation has definite cycles is not borne out by the pattern of below normal precipitation or dry years as recorded by the width of tree growth rings over the past 400 years in western Nebraska and central North Dakota (see figure 7).[6]

Will's conclusion follows: "There seems to be little in the way of general rules to be deduced. Long dry periods may be followed by long wet periods or by short ones and the reverse seems to be true. The mere fact that there has been a long series of dry years seems to have no influence on succeeding years and it may not be followed by long wet periods."

A rather clear indication of what a drop in precipitation will do in central South Dakota is indicated in figure 8. A comparison of the annual precipitation and crop yields of the three decades in Spink County, South Dakota (near the center of the proposed Oahe irrigation area), indicates that there is a significant correlation between precipitation and spring wheat yields.

An important reason for the high rate of mortgage foreclosure in the central part of South Dakota is apparent in these figures. The distress must have been particularly severe on farms with yields below average county yields presented in figure 8.

Settlers and Speculators Set Size Pattern

To understand how the size of farm has affected mortgage foreclosures it is necessary to know something about the settlement of South Dakota. This is true because

[6] H. Weakly, "A Tree Ring Record of Precipitation in Western Nebraska," *Journal of Forestry*, 41 (11), 1943, and George F. Will, *Tree Ring Studies in North Dakota*, N. D. Agr. Exp. Sta., Bul. 338, 1946.

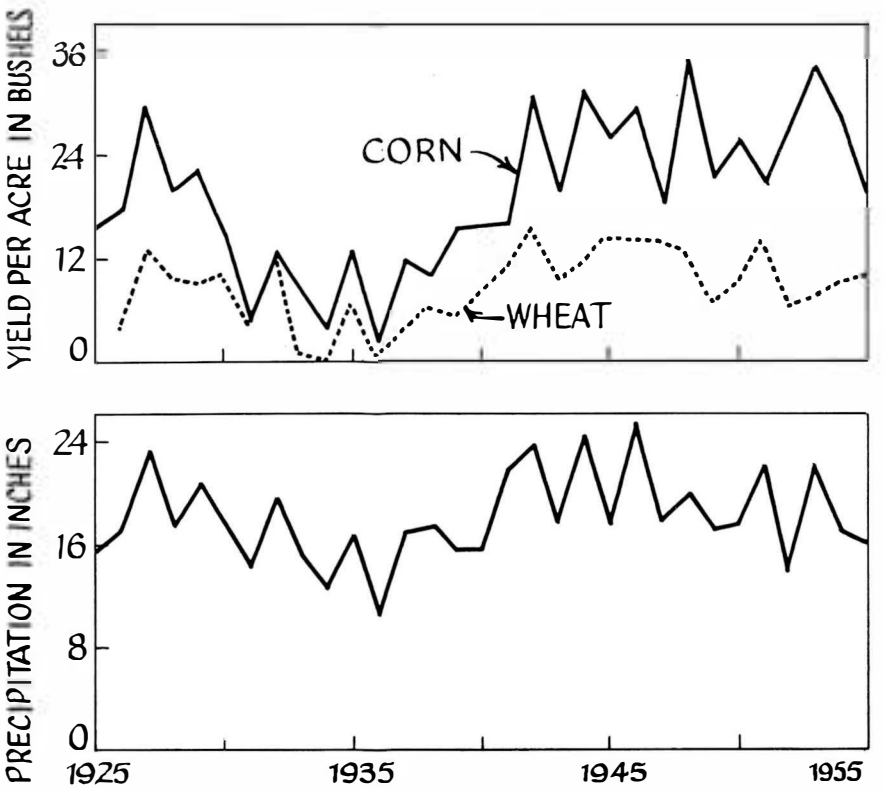

Figure 6. Relation of precipitation to corn and wheat yields per acre, South Dakota, 1925-55.

the settlement had a great deal to do with farm and ranch sizes.

Most of the settlers arrived in two large waves. The first arrived between 1880 and 1890. A great many of these people homesteaded or bought farms in eastern South Dakota. The drouths and depression of the 1890's checked the influx of settlers until the return of better weather and more favorable prices.

Between 1900 and 1910 the second large wave of settlers arrived. These settlers increased the number of farms from 53,000 to 78,000, or 16,000 more farms than in 1955. This can be seen in table 2. In the 10 years, 1900 to 1910, the population of the West River Area increased 115 percent. Of the 7 million acres brought into farms during these 10 years, 5 million acres were in the West River Area.

The population of the South Central Area increased 156 percent. In this area, Tripp County history provides some idea as to the rapidity of settlement. The eastern portion of the Rosebud Indian Reservation was opened to settlement in 1909.

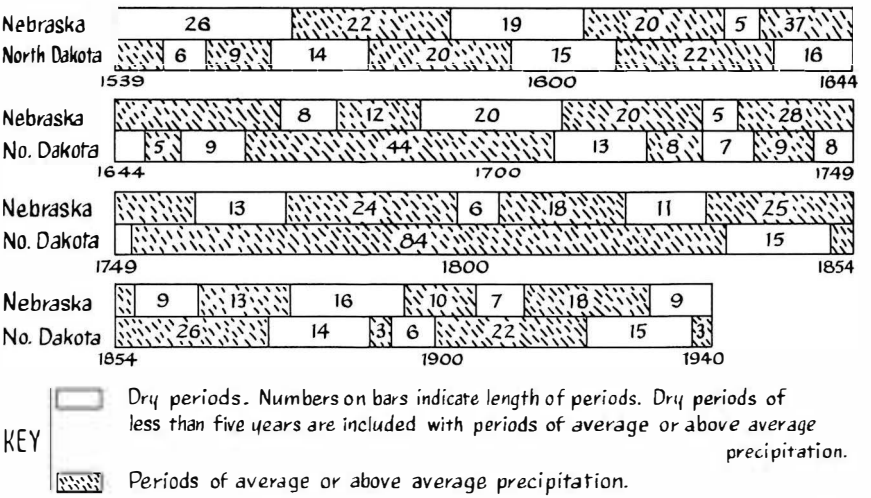

Figure 7. Dry periods of 5 or more years as indicated by tree rings in western Nebraska and central North Dakota for 400 years, 1539-1939. Sources: Journal of Forestry, Nov. 1943; N. Dak. Agr. Exp. Sta., Bulletin 338, 1946.

"People from all walks of life, school teachers, barbers, waiters, clerks, laborers, and the like, many of them from urban centers and without farm experience flocked in by the hundreds until almost every quarter section of land was occupied."[7]

When the Indian lands were opened for settlement, 6,000 homesteads were offered at public drawings with 4,000 released at $6 per acre and 2,000 at $3 per acre. A year later, 1910, the population of Tripp County was 8,323 and the average size of the farms was only 173 acres. By 1950 the population was 9,139 while the average size of farms was 817 acres.[8]

A rancher who homesteaded 160 acres about 20 miles west of Fort Pierre in 1905 reported a similar rush in that area. He stated many of the homesteaders had no qualifications or experience as farmers. Many of these homesteaders soon failed and left the area. This rancher now has seven quarter sections of land which he operates.

Irrigation seemed to be no help in establishing qualified farmers on economic units. On the Belle Fourche irrigation project about one half of the 580 public land homesteads were taken by nonfarmers. Newell township, for example, was largely settled between 1912-17. Of the 203 farms in this township in 1928, exactly 100 were unoccupied.

The lack of farm experience of the original settlers on these 100

[7]Paul H. Landis and others, *"The Short-Grass Spring Wheat Area, Tripp Co., S. D."* Rural Problem Areas Survey Report No. 4, as quoted in S. D. Agr. Exp. Sta. Bul. 440.

[8]Tripp County Agriculture, Statistical Series, South Dakota Crop and Livestock Reporting Service.

farms is shown by the following summary: 32 farmers, 12 lady homesteaders, 7 U. S. employees, 5 laborers, 4 mechanics, 3 clerks, 2 each of preachers, ranchers, students, teachers, garagemen, railroad employees, blacksmiths, and attorneys, and 1 each of retired lady, lumberman, cleaner, clothing salesman, stenographer, carpenter, electrician, drayman, undertaker, surveyor, jeweler, painter, barber,

Table 2. Rate of Farm Settlement and Development in South Dakota, 1870-1954

Year	Rural Population (thousands)	Number of Farms (thousands)	Land in Farm Acres (millions)	Farm Size, Acres
1870	12*	—	—	—
1880	91*	—	—	—
1890	320	50	11	227
1900	361	53	19	363
1910	507	78	26	335
1920	535	75	34	464
1930	562	83	36	439
1940	485	72	39	545
1950	437	66	45	672
1954	—	62	45	721

Source: U. S. Census data as compiled by Lundy and Pengra, "Fifty Years of South Dakota Agriculture," S. D. Agr. Exp. Sta. Agr. Econ. Pamphlet 56, 1954.

*Rural population of that part of Dakota territory which now comprises South Dakota and a small part of Nebraska.

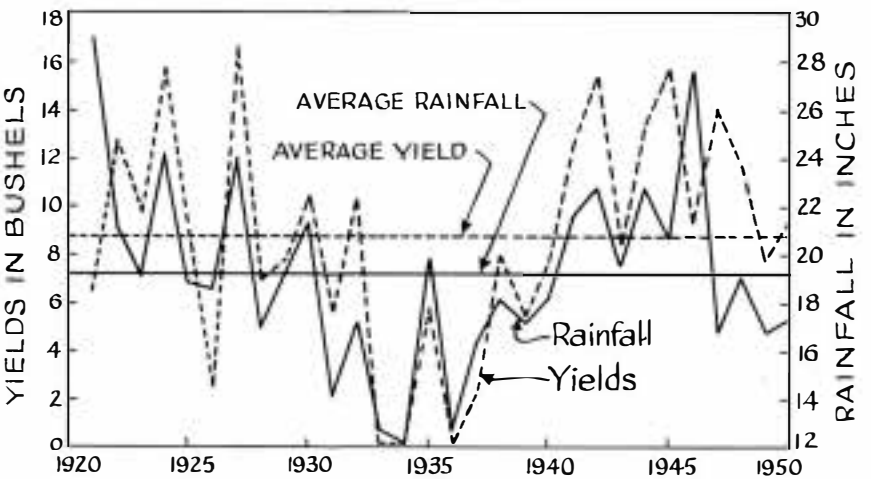

Figure 8. Relation of precipitation to spring wheat yields, Spink County, South Dakota, 1921-50. Sources: South Dakota Weather Bureau and South Dakota Crop and Livestock Reporting Service.

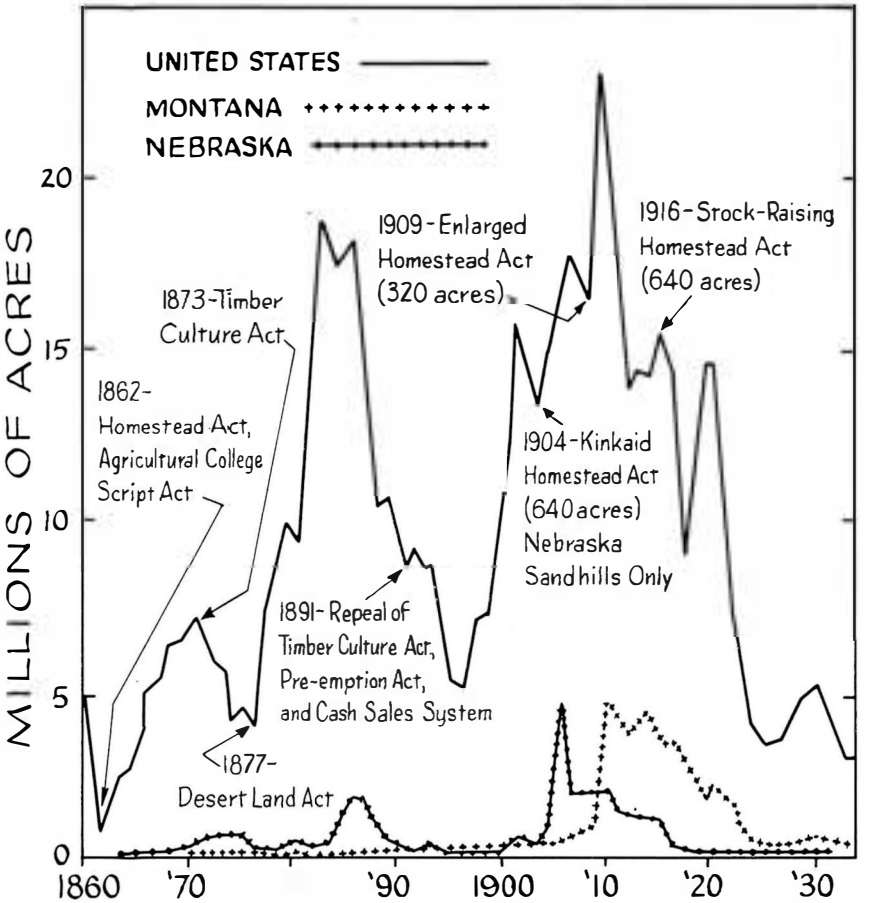

Figure 9. Original entries on government land in the United States, Montana, and Nebraska, 1860-1934. Sources: Certain Aspects of Land Problems and Government Land Policies; Part VII of the Report on Land Planning for the National Resources Board, p. 61, 1935; and Land Systems and Land Policies in Nebraska, Publications of the Nebraska State Historical Society, Vol. XXII, p. 158, 1936.

plumber, civil engineer, stock buyer, merchant, and a contractor.[9]

Most of the settlement in South Dakota took place before the size of homesteads was raised to 320 acres in 1909 and 640 acres in 1916. Only 2.4 million acres were entered in the state under the grazing or livestock raising homesteads of 640 acres, and only 1.4 million acres were patented between 1918 and 1935.[10]

[9]Riley, Kumlein, and Tucker, *50 Years Experience on the Belle Fourche Irrigation Project,* S. D. Agr. Exp. Sta. Bul. 450, 1955, p. 57.

[10]The Western Range, Senate Document 199, 74th Congress, 2nd Session, 1936, Table 41, p. 224-5.

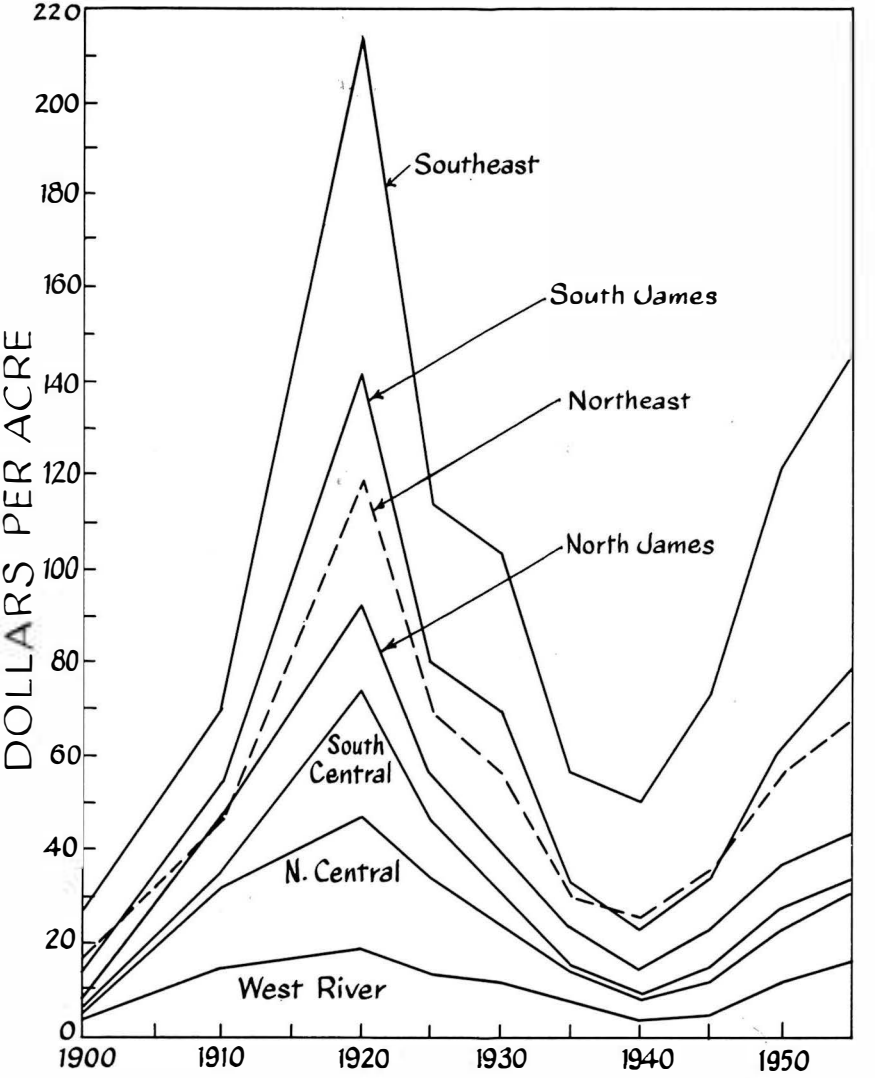

Figure 10. Value of farm land and buildings per acre by economic areas, South Dakota, 1900-54.

Farms Become Smaller, 1920-35

The 10 years, 1910-20, were unusually favorable for the new settlers and their small farms. Yields were high and farm prices very favorable. Farm incomes soared. As a result there was a large increase in land values as can be seen in figure 10. The value of land nearly doubled in the state. These condi-

tions undoubtedly tended to check any consolidation of units except in the western two-thirds of the state.

Only in the west was the inadequacy of the 160-acre homestead generally recognized. In the West River Area, farm and ranch sizes increased from 328 acres in 1910 to 883 acres in 1920, an increase of 169 percent. The increase in size is shown in figure 11. Farms in the North Central Area increased by 136 acres or 26 percent and South Central farms by 112 acres or 37 percent between 1910 and 1920. However, in all four of the eastern areas the average size of farm decreased somewhat. Between 1920 and 1935 farms and ranches in all areas except those in the South Central Area decreased slightly in size.

Lack of off-farm employment opportunities is generally believed to be the cause of this decrease in farm size. If this is true, then a healthy economy with off-farm employment opportunities would tend to encourage farms to grow in size. To the extent that increased size means greater efficiency, then the strength of agriculture would be increased and the dangers of mortgage foreclosures lessened.

Farms Grow Rapidly, 1935-55

After 1935 a general inflationary period began. Both yields and prices improved. Costs were relatively low. By 1940 land values were lower than at any time since 1900 (see figure 10). Off-farm employment opportunities improved. Tractors were available to increase the amount of land which could be handled by a farm family. As a result of these favorable factors, farms increased rapidly in size. As might be expected from past behavior, the rate of increase was the largest in the West River Area and smallest in the Southeast Area. The change during 1935-54 ranged from 160 percent in the West River Area to 12 percent in the Southeast. This is shown in table 3.

It is interesting and probably significant that the most rapid increase in farm size occurred between 1935 and 1940 and appears to have leveled off during 1950-54 except for the West River Area. This suggests that perhaps farms and ranches are fast reaching their most profitable size. No doubt many farms have reached this size and some may be too large.

Nevertheless 75 percent of the farms with gross incomes of $2,500 or less are under 200 acres in size (see table 4). No doubt other factors such as soils, drouth, hail, insects, diseases, and management are partially responsible for some low gross incomes. But even when yields and prices are favorable smaller farmers may have difficulty in supporting a family and making mortgage payments. If the downward trend in farm incomes continues for several years there are reasons to believe that the number of farm mortgage foreclosures among the smaller farms will increase rather rapidly.

The relationship of size to gross income is less important in the 200-499 acre size group. Here variations in productivity as well as acres have more effect on gross incomes.

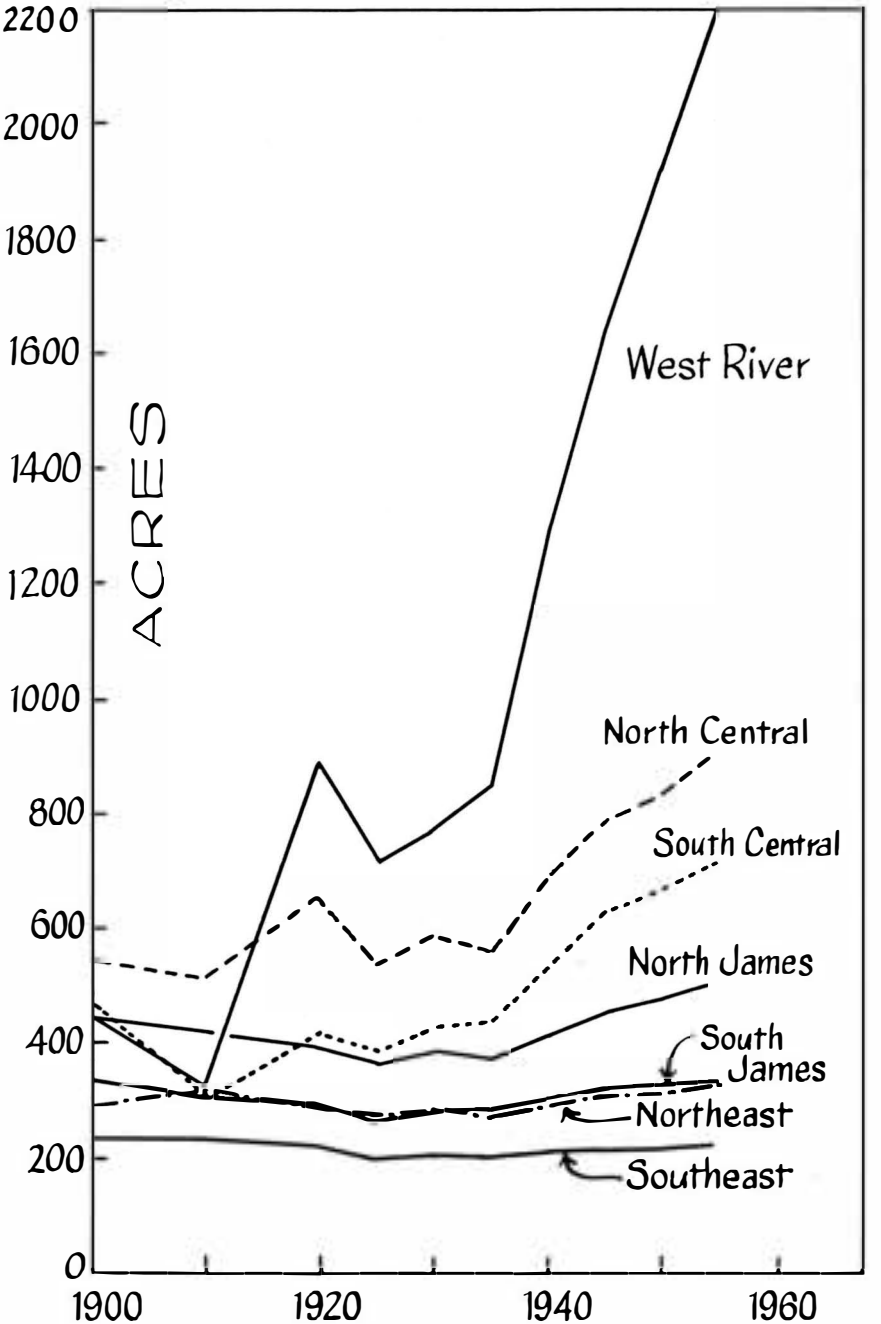

Figure 11. Increase in farm and ranch sizes by economic areas, 1900-54.

Table 3. Percentage Increase in the Average Size of Farms and Ranches by Economic Areas, South Dakota, 1935-54

	1935-40	1940-45	1945-50	1950-54	1935-54
West River	50	29	18	13	160
North Central	25	14	5	9	62
North James	15	8	6	7	40
South Central	22	17	5	9	64
South James	10	7	1	2	22
Northeast	9	5	2	4	21
Southeast	5	2	*	5	12
State	22	15	7	7	62

Source: U. S. Census of Agriculture. For average acreage per farm or ranch see Appendix Table 3.
*Less than .5% decrease.

Table 4. Effect of Size on Gross Farm Incomes for Commercial Farms, South Dakota, 1954

Gross Income Group	Farms		Percent of Farms in Each Size Group*				
	No.	Percent	Under 100 A.	100-199 A.	200-499 A.	500 A. or More	Total
$25,000 or more	1,494	2	2	9	30	59	100
$10,000 to $25,000	9,585	16	1	10	51	38	100
$5,000 to $10,000	20,871	35	3	24	60	13	100
$2,500 to $5,000	17,504	29	10	39	47	4	100
Under $2,500	10,342	18	37	38	24	1	100

Source: U. S. Census of Agriculture, 1954. Part-time, residential, and abnormal farms omitted.
*These percentages are based on 58,373 commercial farms reporting cropland harvested in 1954.

Table 5. Percent of Farms in Various Sized Groups by Areas, South Dakota, 1954

Area	Average Size, Acres	Percent of Farms in Size Groups					
		Under 100 A.	100-179 A.	180-259 A.	260-999 A.	1000 or More	Total
West River	2204	5	5	3	32	55	100
North Central	904	4	4	2	63	27	100
North James	511	6	8	7	71	8	100
South Central	720	5	9	5	63	18	100
South James	333	10	15	16	57	2	100
Northeast	328	8	17	16	57	2	100
Southeast	224	15	30	23	32	*	100
State	721	8	14	12	51	15	100

Source: U. S. Census of Agriculture, 1954. Includes part-time, residential, and abnormal farms.
*Less than 1%.

Farms of this size are found all over the state whereas those of 200 acres or less are more common in the southeastern part of the state. Of farms and ranches producing $25,000 gross income or more, 59 percent were 500 acres or larger.

The size of farms and ranches in different areas is shown in table 5. In studying this table, it should be kept in mind that a farm or ranch which is too small for the range country may be about right for the central areas and too large for the corn areas. When allowance is made for the productivity of the land and modern farming methods, farms and ranches too small for efficient production are found in every area of the state. These inefficient units are likely to become distressed when yields and prices are unfavorable.

Farm Prices and Foreclosures

The two disastrous slumps in farm produce prices after the boom of World War I are generally recognized as an important factor affecting the number of farm mortgage foreclosures. The sharp decline in farm prices in 1920 and again in 1930 is shown in figure 5.

The unexpected decline in prices is all the more painful because it is seldom matched by similar drops in the cost of production. Adjustments in farm costs come much more slowly than adjustments in farm produce prices. Costs of items of production do not fall as a result of a drouth although the total cost may be reduced because tractor fuel and other items purchased may be somewhat reduced.

Furthermore, the fall in farm produce prices and production is rarely matched by a fall in land values except in the long run (see figure 5). Even when land values fall, there is no relief for a farmer who has been buying land on credit. His interest and principal charges are not affected by the fact that prices have fallen or that drouth has destroyed his crops. While the fluctuations in prices due to the World War I boom and the two postwar slumps caused much distress, they do not explain why South Dakota had an average annual rate of distress transfers of 888 farms per 1,000 transfers from 1925-34—the highest in the nation.[11]

Likewise price changes do not explain the wide variation in the rate of mortgage foreclosure within South Dakota as shown in figure 3. These two variations appear to be related to weather, insects, disease and other natural hazards, and the failure to adjust the farm size according to the productivity of the land. Another cause of distress may be the unsatisfactory mortgage lending arrangements used in the higher risk areas of the state.

Loan Conditions as a Cause

As has been suggested, the fundamental cause of mortgage foreclosure is the failure of the borrower and the lender to estimate the long-term income possibilities of the land and particularly the variations in income from period to period within the long term. The unpredictable nature of the runs of dry and wet periods and prices have al-

[11] L. A. Jones and D. Durland, *Mortgage Lending Experience in Agriculture*, Princeton University Press, Princeton, 1954, p. 184

ready been discussed (see figures 7 and 8).

The establishment of uneconomic sized farms particularly in central and western South Dakota is an indication of the general tendency to over-estimate the productive capacity of the land in the long term. Looking backward, it is easy to see the mistake that was made. However, above normal precipitation at the time of settlement, lack of information regarding precipitation and soils, and the World War I boom in prices and land values made prediction of postwar conditions extremely difficult. No better indication of the difficulty of forecasting can be found than the general feeling among many people that an agricultural depression was likely to follow World War II as it did World War I. While prices finally declined, there has not yet been the drastic fall in farm produce prices which many people expected.

A large increase in mortgage debt occurred after prices fell in 1920. In 1920 the mortgage debt increased $59 million and the next year $97 million, making a total increase of $156 million for the 2 years. This increase is more than the total increase of $154 million between 1911 and 1919.

This large increase in mortgage debt suggests ample funds for lend-

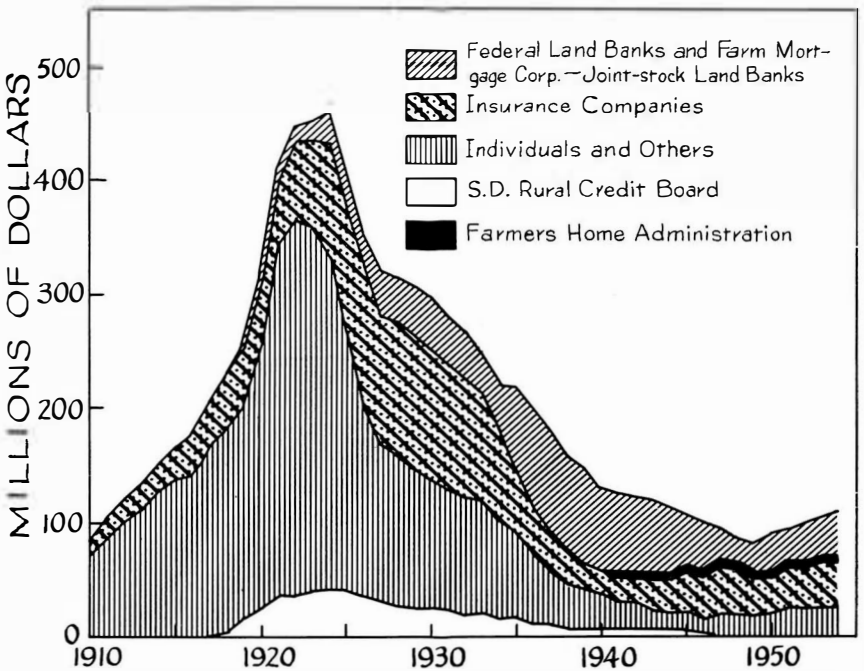

Figure 12. Farm mortgage debt held by major lenders, South Dakota, 1910-54. Source: Unpublished data of ARS, PERB, USDA.

ing and optimism concerning the future. However, a large part of this increase may have been due to distress borrowing. This is indicated by the number of mortgage foreclosures started in the state. Foreclosure action rose from 1,200 in 1921 to 2,400 in 1922. In 1921 the State Legislature appropriated money for a study of farm costs.

By whom were these mortgages being made? In 1920, only 1 percent of the farm mortgage loans were being made by the Federal Land Bank, 13 percent by the Rural Credit Department, and only 14 percent by insurance companies, while 72 percent were being made by individuals, banks, and all others (see figure 12).

In 1921, there were 700 banks in South Dakota. By 1935, the number was less than 200—a decrease of 500 banks in 14 years. The number of banks has remained at this level since 1935. To what extent the mortgage foreclosures were due to the optimism and inexperience of many of these banks is not known. The bank failures may have been largely the result of farmers' inability to pay interest and principal on their debts. On the other hand, farm mortgage interest rates and terms were quite different from what they are today. A committee appointed in 1913 by Governor Frank Byrne met at Mitchell and reported:

> I find that in looking into the matters of credits of farmers in this part of the country that the farmers are able to borrow money on land for five years at 6 percent, and that every five years they have to pay a commission of from 1 to 2 percent for the whole length of time on the loan, which makes a total cost they have to pay of anywhere from 7 or 8 percent. . . The State of South Dakota has quite a volume of school money which is loaned to the farmers on five years' time without any commission, but this is only a drop in the bucket and is taken up very rapidly. I have been in the farm loan business for 25 years, and have charged commissions ranging from 1 to 2 percent. We do this because we have to pay a commission in selling these loans where we sell them through a broker.[12]

Mortgage Loan Conditions

Some idea of the lending practices of this period which may have led to mortgage foreclosures is provided by the operations of the State Rural Credit Department, which was authorized by the Legislature to make long-term mortgage loans to farmers and ranchers in the state.[13] This institution made over 12,000 loans totaling $47 million during the years 1917-25. Of this amount, $26 million were loaned during the first 3 years of operation. Only $72,000 were spent in the examination of the land mortgaged during the 8 years, 1917 to 1925. In 1924 only three field men were employed to service these loans.

Over 75 percent of the loans made by the Rural Credit Department

[12] *Ag. Cooperation and Rural Credit in Europe,* Part III, Senate Doc. 214, Vol. 4, Part 2, 63rd Congress, 1st Session. As quoted by R. J. Penn, S. D. Rural Credit Dept. Ph.D. Thesis, University of Wisconsin, 1941, p. 10. Penn found that the interest rate on recorded mortgages of $2,000 to $5,000 in Brown County remained rather constant at 6 percent from 1905 to 1925. But this did not include commission rates or charges.

[13] The following discussion is based upon Raymond J. Penn, "South Dakota Rural Credit Department," Ph.D. Thesis, University of Wisconsin, 1941.

Table 6. Estimated Net Cash Farm Income of Farmers and Ranchers at 89, 75, and 100 Percent of Parity, South Dakota, 1954

Gross Income Classes*	Expenses Estimated at 70% of Maximum Gross Income†	Maximum Net Cash Income in Each Class	Decrease in Net Cash Income if Prices Had Been 75% of Parity	Increase in Net Cash Income if Prices Had Been 100% of Parity	Farms and Ranches in Each Income Class	
					Number	Percent
I. $25,000 or more	$17,500+	$7,500+	$3,952+	$3,090+	1,494	2
II. 10,000 to 25,000	17,500	7,500	3,952	3,090	9,585	16
III. 5,000 to 10,000	7,000	3,000	1,573	1,236	20,871	35
IV. 2,500 to 5,000	3,500	1,500	786	618	17,504	29
V. 1,200 to 2,500	1,750	750	393	309	7,602	13
VI. 250 to 1,200	840	360	189	148	2,740	5

*U. S. Census of Agriculture, 1954. Part-time, residential, and abnormal farms and ranches omitted. Farm prices were 89% of parity in 1954.

†Expenses include land charges, depreciation, hired labor, and other operating costs, but not unpaid labor of operator and his family. These expenses were 70.2% of cash receipts from farm marketing and government payments in 1954. See: "Farm Income Situation," USDA, FIS-156, December 16, 1955, p. 27. No doubt the expenses vary with type and size of farm but such data are not available.

Table 7. Owners, Part-Owners, and Tenants and the Land They Farm by Economic Areas, South Dakota, 1954

Areas	Number of Farmers*	Farmers by Tenure				Land by Tenure			
		Full Owners, %	Part-Owners, %	Full Tenants†, %	Land Farmed, Million Acres	Full Owners, %	Part-Owners, %	Full Tenants, %	Managers, %
West River	9,210	27	58	15	21.4	12	75	10	3
North Central	6,554	21	56	23	6.1	16	66	17	1
North James	8,493	32	42	26	4.5	24	53	23	‡
South Central	4,369	28	44	28	3.2	19	59	20	2
South James	9,930	30	36	34	3.4	23	46	31	‡
Northeast	9,394	35	33	32	3.2	28	41	30	1
Southeast	11,846	34	25	41	2.7	26	32	42	‡
State	59,796	30	40	30	44.5	17	63	18	2

Source: U. S. Census of Agriculture, 1954.

*Part-time, residential, and abnormal farms omitted.

†The number of farms with managers was 1% of the total number for the West River Area and this has been included with the full tenants. In the other areas, the number of managers was less than one-half of 1% of the total.

‡Less than one-half of 1%.

Table 8. Average Value of Farm Land and Buildings per Farm, South Dakota and Economic Areas, 1900-54

Year	West River	North Central	North James	South Central	South James	North-east	South-east	State Av.
1900	$ 1,756	$ 2,457	$ 3,510	$ 2,857	$ 4,642	$ 4,601	$ 6,122	$ 4,183
1910	4,909	16,752	20,006	10,556	17,013	14,782	15,945	12,945
1920	15,917	30,588	36,916	31,053	41,615	34,453	45,299	33,132
1925	9,626	18,281	21,056	17,829	21,259	18,872	22,491	18,071
1930	9,068	14,841	16,283	13,591	19,064	16,057	21,279	15,455
1935	6,130	7,855	8,926	6,758	8,878	8,176	11,355	8,305
1940	5,343	5,460	6,304	4,759	6,738	7,606	10,761	6,976
1945	8,775	9,220	10,466	9,174	10,936	10,994	15,962	11,124
1950	22,082	19,153	17,878	18,213	20,052	18,057	26,411	20,740
1954*	37,180	28,330	22,918	24,550	26,879	22,956	34,079	28,683

Source: U. S. Census of Agriculture.
*Area sample data.

were to refinance existing indebtedness of farmers and only 19 percent to purchase land. The department's loan policies were such that relieving banks of their poorer loans appears to have been the main achievement. After loaning was stopped in 1925 there were 10,817 unpaid loans secured by mortgages on real estate. Many of the tracts were 160 and 320 acres in size. The average size of tracts in the eastern part of the state was only 225 acres and in the western part 298 acres.

Many of these small uneconomic tracts were soon in difficulty and added to the total of farm mortgage foreclosures in the state. By 1928, 48 percent of the loans were delinquent for one or more payments. By 1938 the Rural Credit Department held deeds to 6,677 tracts or 1.7 million acres. This figure does not include tracts which were sold. The average size was 262 acres. In Hand County alone 375 loans had been foreclosed by 1939.

To what extent the Rural Credit Department's lending policies increased foreclosures in the state cannot be definitely determined. To a large extent the department appears to have taken over loans which would have had to be foreclosed by local banks. However, the department's policy of keeping funds in local banks may have been instrumental in preventing many banks from failing. Such failures would have caused the loss of farmers' savings and might have aggravated the foreclosure situation.

Since two of the four board members were bankers and a third held banking interests, the lending practices of the department were probably not much different from those of many banks during this period. The chairman of the board, a banker of long experience in central South Dakota, was strongly imbued with the idea that all loans secured by land were safe investments because land values would continue to increase. History strongly supported him. The rapid increase in

land values per economic area between 1900 and 1920 can be seen in figure 10. This rapid increase in land values is evidence that many people shared the opinion that land values would continue to rise. The result was a speculative boom which no doubt made its contribution to the high rate of distress and mortgage foreclosure (see figure 5).

However, while the boom was greatest in the Southeast Area there were also less mortgage foreclosures in that area. Hence, productivity per farm and ranch seems to have been more important than the boom in land values as a factor affecting foreclosures. The Rural Credit Department had made half of its total loans between 1917 and 1920. Farmers and ranchers who tried to pay these loans with the drastically reduced incomes in the years that followed 1920 were certain to have difficulties which often led to foreclosure.

Reducing the Causes of Agricultural Distress

The strength of agriculture can be improved by (a) stabilizing farm production, (b) stabilizing farm prices and incomes, (c) improving farm tenure and credit arrangements, (d) increasing farm and ranch size for greater efficiency. Some of the problems and possibilities of "Strengthening Farms and Ranches in South Dakota" are discussed in detail in Agricultural Economics Pamphlet 81, Feb. 15. 1957. Copies of this pamphlet are available upon request.

The strength of South Dakota's agriculture is measured in the well-being of her rural people. In the past, farm mortgage foreclosures have been an indicator of extreme distress among farmers and ranchers. The purpose of this publication is to examine the trends in farm mortgage foreclosures and other factors affecting the strength of agriculture from 1921-55. Then some of the causes of past distress are reviewed.

The number of farm mortgage foreclosures started in the state was secured for the years 1913, 1918, and 1921-56 mainly by mailed questionnaires returned by the county Registers of Deeds.

Summary

Two Major Foreclosure Peaks

Two major peaks in farm mortgage foreclosures were reached in the period, 1921-55, covered by this study. The first was in 1924 and the second in 1932. As the dates suggest, the distress was partially due to the drastic drop in farm prices of the immediately preceding years, but other factors also appear to be important.

Over-optimism on the part of farmers and lenders about the productivity of the land appears to have been a major cause of distress. The rapid growth in the size of farms since 1920 in the western areas as compared with the eastern areas suggest that, considering the productivity of the land, farms in the west and central areas were too small to enable the farmers to raise

a family, pay operating costs, and meet interest and principal payments on mortgages.

Foreclosure Decline

From 1935 to 1947, there was a rapid decline in the number of farm foreclosures started, due largely to higher farm product prices or inflation. Other factors such as increased farm size, improved crops, and better farm management practices have also helped. Sizes of farms and ranches, particularly in the western and central part of the state, have increased greatly and though the rate of growth has slowed down, the increase in size may continue—at a slower rate.

Since 1947 gross farm income has been declining while costs have been slowly increasing. During this period, the increased size of farms and the general improvement in farm management practices may be one of the important factors in the low rate of mortgage foreclosures. From 1947 to 1955 there have not been more then 18 foreclosures reported in the state for any given year. This low rate of foreclosure is believed to be one indication of the present strength of South Dakota's agriculture. Recent adjustments in farm and ranch sizes should increase the strength of agriculture. However, the declining farm incomes due to less favorable crop seasons and lower farm prices, higher land values, and increased mortgage debt have raised a question as to the future of the agricultural economy of the state.

The fact that there have been relatively few farm mortgage foreclosures since 1940 should not be taken as an indication that there is no distress in agriculture today. With a strong land market many farmers in difficulty simply sell their farms or assign the title to their creditors to avoid foreclosure. In 1954 with prices at 89 percent of parity, 47 percent of the farmers in the state produced $5,000 or less of farm products. Assuming production expenses are 70 percent of the gross income, this leaves a net cash income of $1,500 or less for nearly half the farmers and ranchers in the state.

While the present trend has already caused some distress, it has not yet been reflected in the number of farm mortgage foreclosures. Some important changes in agriculture may keep mortgage foreclosures lower than they would have been in the past. The rapid adjustment in farm size may have gone far enough to reduce mortgage foreclosure rates in the central and western areas to the level of the rates among the farms in the eastern areas of the state. A shift to rental arrangements may be a contributing factor in the decline of mortgage foreclosures.

Appendix Table 1. The Number, Acreage, and Indexes of Farm Mortgage Foreclosures Initiated Annually in South Dakota During 1913, 1918, and 1921 Through 1956

Year	Foreclosures Initiated		Index of Number Farm Foreclosures Initiated, 1921-55 =100	Index of Acreages on Which Farm Foreclosures Were Initiated, 1921-55 =100	Foreclosures Initiated per 1000 Acres of Assessed Farm Land,	Redemptions	
	Number	1000 Acres			Acres	Number	Acres
1913	674	130	43	38		Data not collected prior to 1950	
1918	445	103	29	30			
1921	1,172	265	79	80	8		
1922	2,393	519	161	157	14		
1923	3,252	723	218	218	20		
1924	3,709	836	249	252	23		
1925	3,303	743	222	224	20		
1926	2,754	615	185	185	16		
1927	2,826	637	190	192	17		
1928	2,388	499	160	151	13		
1929	1,824	390	122	118	11		
1930	1,749	383	117	115	10		
1931	3,185	732	214	221	20		
1932	3,864	851	259	257	23		
1933	3,472	764	233	230	21		
1934	2,620	552	176	166	15		
1935	3,399	729	228	220	20		
1936	2,582	570	173	172	16		
1937	1,920	439	129	132	13		
1938	1,894	473	127	143	14		
1939	1,776	432	119	130	13		
1940	734	172	49	52	5		
1941	463	98	31	30	3		
1942	378	77	25	23	2		
1943	172	32	12	10	1		
1944	102	21	7	6	1		
1945	58	13	4	4	*		
1946	36	8	2	3	*		
1947	18	3	1	1	*		
1948	16	6	1	2	*		
1949	16	3	1	1	*		
1950	16	7	1	2	*	2	2,920
1951	9	3	1	1	*	7	1,487
1952	10	2	1	1	*	5	2,000
1953	10	2	1	1	*	2	480
1954	18	7	1	2	*	3	1,473
1955	11	3	1	1	*	5	1,285
1956	16	8	1	3	*	4	1,360

*Less than .5 acre per 1,000 acres.

Appendix Table 2. The Number and Acreage of Farm Mortgage Foreclosures Initiated Annually per Area, 1921-56

Year	West River Area 1		North Central Area 2a		North James Area 2b	
	No.	Acres	No.	Acres	No.	Acres
1921	541	131,321	180	42,268	97	23,608
1922	917	201,613	389	93,238	236	42,912
1923	1,371	314,521	428	112,556	380	77,024
1924	1,466	379,448	491	127,763	494	89,626
1925	1,530	386,774	354	84,445	366	71,820
1926	1,222	318,353	312	77,506	303	56,947
1927	816	216,524	334	83,890	456	94,821
1928	836	206,139	234	58,208	371	69,967
1929	563	135,473	218	56,326	365	73,907
1930	459	117,364	297	72,568	340	71,709
1931	658	190,496	475	117,846	739	163,542
1932	432	127,226	523	137,744	881	185,384
1933	508	168,626	499	120,671	621	136,446
1934	227	83,710	318	69,641	441	94,903
1935	808	225,051	409	101,364	460	91,756
1936	655	184,557	370	90,395	312	62,082
1937	580	167,960	321	79,071	255	52,511
1938	652	213,878	280	73,904	256	54,417
1939	416	128,351	293	91,824	331	77,177
1940	181	56,155	104	31,428	116	23,218
1941	143	31,561	69	23,996	36	7,239
1942	116	30,691	48	11,087	33	6,989
1943	54	12,763	18	3,300	21	3,439
1944	34	7,566	9	2,199	12	2,325
1945	24	6,018	10	3,368	7	1,168
1946	12	2,720	4	1,960	5	1,600
1947	3	891	2	560	3	244
1948	8	4,187	3	500	2	665
1949	7	1,240	4	811	2	475
1950	3	1,360	1	2,800	5	954
1951	3	1,720	1	480	0	0
1952	3	477	0	0	2	480
1953	4	1,605	1	320	3	283
1954	1	1,861	4	2,111	7	1,280
1955	5	1,422	2	1,120	1	157
1956	3	2,680	5	2,420	5	1,987

Appendix Table 2. (continued)

Year	South Central Area 3a		South James Area 3b		Northeast Area 4a		Southeast Area 4b	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres
1921	112	26,728	73	11,811	117	21,721	52	7,804
1922	213	52,820	196	43,702	292	57,279	150	27,931
1923	331	73,495	213	46,651	382	73,837	147	25,182
1924	358	76,834	205	38,287	506	91,461	189	32,786
1925	297	68,479	212	35,111	380	65,588	164	30,400
1926	289	58,237	214	35,824	284	46,442	130	21,579
1927	394	88,386	242	42,346	403	82,264	181	28,386
1928	282	56,035	163	25,859	350	59,622	152	23,539
1929	146	31,436	90	18,674	331	57,984	111	16,126
1930	196	40,468	89	15,927	297	54,282	71	10,429
1931	212	58,474	280	54,430	575	106,477	246	40,329
1932	299	71,205	548	110,019	721	143,357	460	75,891
1933	326	69,661	618	115,021	540	98,228	360	55,283
1934	251	52,722	607	112,913	344	65,809	432	71,955
1935	413	84,482	540	96,850	363	62,769	406	66,466
1936	326	80,118	368	66,113	293	47,063	258	40,111
1937	215	49,320	252	41,724	135	22,646	162	25,930
1938	179	38,631	238	44,416	135	23,408	154	24,015
1939	207	47,952	242	41,052	146	25,328	141	20,767
1940	80	20,103	134	22,146	43	7,983	76	11,054
1941	57	11,237	74	12,333	29	5,124	55	6,885
1942	29	4,438	76	13,155	33	4,992	43	5,700
1943	11	2,719	33	6,657	16	1,688	19	1,863
1944	14	3,382	18	2,820	7	1,134	8	1,246
1945	1	162	9	1,300	4	440	3	280
1946	6	962	1	159	4	462	4	585
1947	4	640	0	0	4	720	2	165
1948	0	0	1	80	1	152	1	318
1949	0	0	3	400	0	0	0	0
1950	1	160	1	160	4	1,033	1	160
1951	0	0	3	720	2	240	0	0
1952	0	0	2	80	1	160	2	551
1953	0	0	0	0	1	160	1	39
1954	1	640	0	0	4	796	1	40
1955	0	0	2	120	1	160	0	0
1956	1	320	1	200	0	0	1	160

Appendix Table 3. Trends in the Average Size of Farms and Ranches by Areas, South Dakota, 1900-54

Year	West River, 1	North Central, 2a	North James, 2b	South Central, 3a	South James, 3b	North-east, 4a	South-east, 4b	State Av.
				Acres				
1900	450	548	448	466	331	291	230	363
1910	328	518	420	302	303	313	229	335
1920	883	654	397	414	292	289	211	464
1925	712	542	369	385	266	272	197	403
1930	769	590	385	424	276	280	205	439
1935	848	558	365	438	272	270	200	445
1940	1271	697	420	536	299	293	210	545
1945	1639	793	453	626	321	309	214	626
1950*	1942	831	478	660	325	314	213	672
1954*	2204	904	511	720	333	328	224	721

Source: U. S. Census of Agriculture.
*Area sample basis.