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## Farm Planning in South Dakota

S. W. Jones

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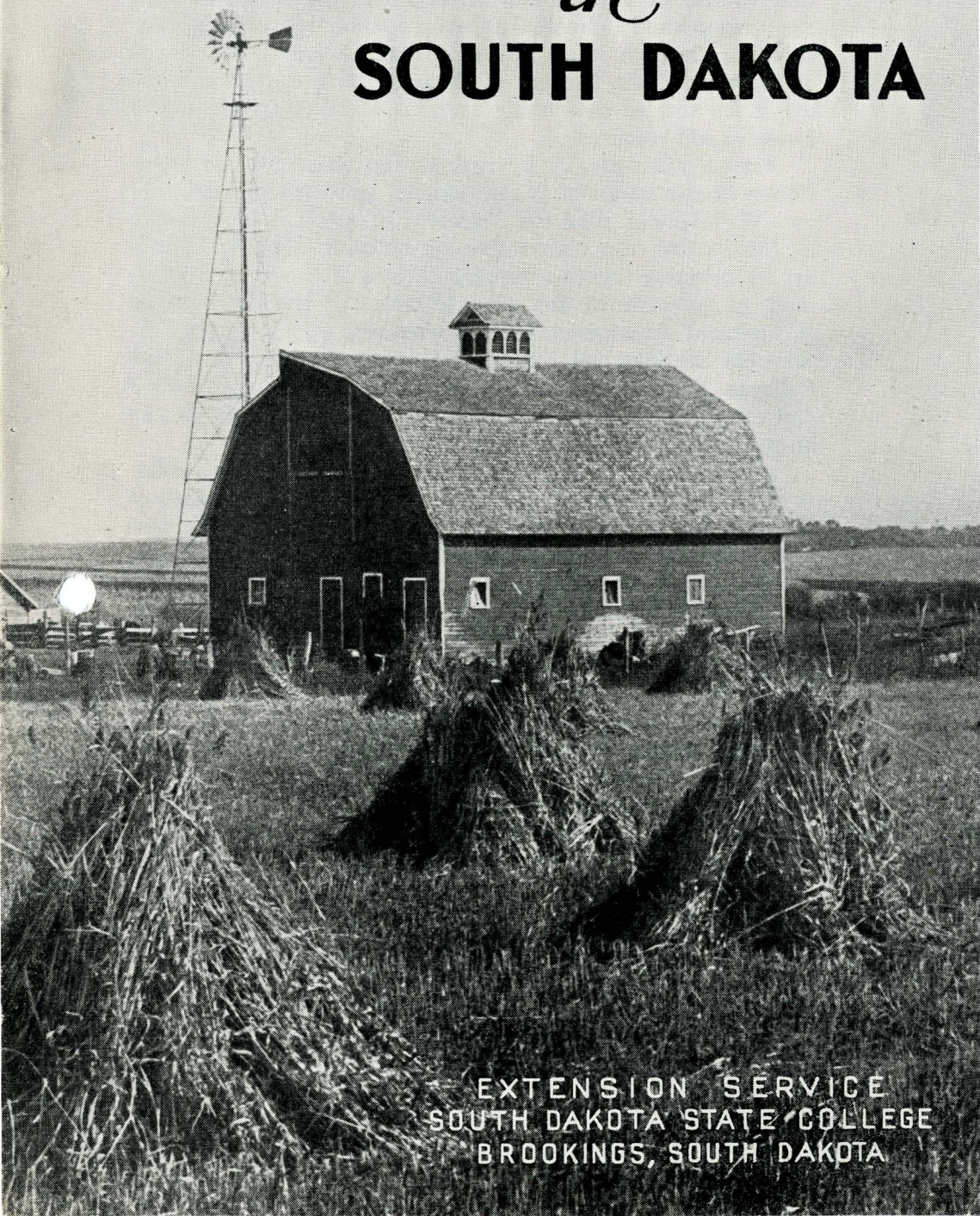
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# FARM PLANNING *in* SOUTH DAKOTA



EXTENSION SERVICE  
SOUTH DAKOTA STATE COLLEGE  
BROOKINGS, SOUTH DAKOTA



## Foreword

If we are to develop any long-time agricultural program that will be worthwhile and lasting, it is very essential that local groups and individual farmers assume responsibility for thinking through local problems. Their intimate knowledge of these problems, because of their experiences, can contribute much toward developing systems of farming which will conserve soil resources.

Farms differ greatly by regions and therefore consideration need also be given to the regional approach to this problem. With this in mind the Secretary of Agriculture, as early as 1935, initiated a cooperative agricultural planning procedure by bringing together representatives of the U. S. Department of Agriculture, the administrators of the Agricultural Adjustment Administration and representatives of the Experiment Stations and Extension Services of the Land Grant Colleges. This project was carried on in this manner in 1935 and continued this year with the Soil Conservation Service as an additional cooperator.

Supplementing these regional and national studies, a county agricultural planning project was started in every county of the state, under the supervision of a county agricultural planning committee. The object was to provide a sound basis for coordinating acreage and production adjustments needed from a national standpoint, keeping in mind at all times the adjustments needed for the efficient operation of agriculture in each area and for soil conservation, and at the same time giving the farmer as much freedom as possible in adopting the crop and livestock system that is best for his farm.

Every county in South Dakota participated in this planning project. We herewith present the results to you. We hope you will find them of interest and of value. The project will be carried on again this year. It is hoped that last year's results will be reviewed; that they will be further refined and that full consideration can be given to many of the problems that could only be touched upon last year.

A. M. EBERLE,

Director of Extension

## S U M M A R Y

**I. Assuming normal weather conditions, present farming practices, prospective prices, but without an agricultural or farm plan of any kind, South Dakota farmers estimated that:**

- A. Acreage of crop land would be decidedly increased.
- B. The acreage of soil depleting crops such as wheat, barley and corn would tend to increase.
- C. Pasture land would increase slightly, but not nearly to the extent expected with a soil conservation program in effect.
- D. Hay land would follow the same trend as pasture land.
- E. Total land in farms would increase to the highest total ever reached in the State, resulting in hundreds of thousands more acres being brought into production than are now in agricultural production.
- F. Considerably more cash grain would be on the market than normal.
- G. There would be very little tendency to increase legume acreage above the 1934 low point.
- H. Plowable pasture would be reduced in acreage because of its being planted to grain.
- I. Livestock numbers would increase, but very slowly, above the 1934 low because of the tendency to put grain on the market instead of feeding it, and because of continued short pasture and hay supplies.
- J. Beef cattle numbers would increase a little faster than dairy cattle numbers.

**II. Assuming normal weather conditions, prospective prices, and if farm practices had been adjusted to maintain soil fertility and control erosion, South Dakota farmers estimated that:**

- A. Rural farm population would increase.
- B. Number of farms would tend to increase slightly.
- C. Total crop land acreage would decrease with more land being put back into pastures.
- D. Total land in farms would tend to decrease.
- E. Oats, barley, rye and wheat acreage would experi-

ence severe cuts, but corn acreage would increase slightly. In the aggregate, soil depleting crop acreage would be cut.

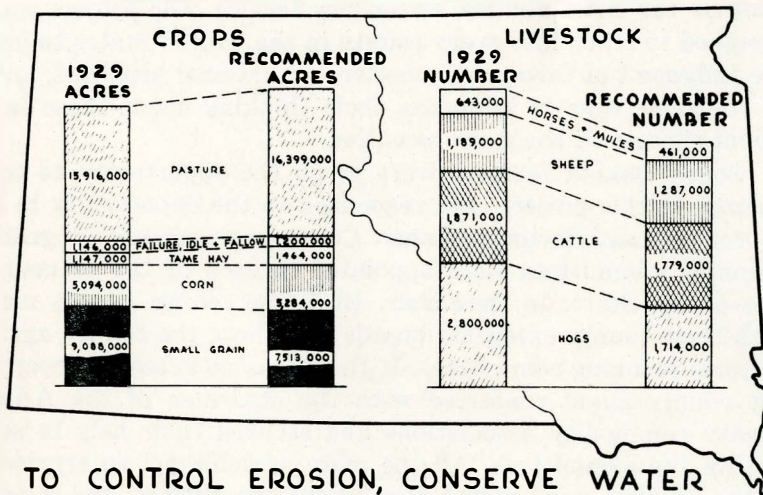
- F. Soil conserving crop acreage would increase, with alfalfa approaching the 1929 high point.
- G. The number of grazing and hay consuming animals would increase, with the biggest increase being in beef cattle numbers.
- H. Hog numbers would increase to some extent, as would chicken numbers.
- I. Sheep and horse numbers would experience only slight increases.

**III. After sufficient time had elapsed to permit such changes in farm management practices as are necessary to at least maintain yields and soil fertility and control erosion, and to permit desirable shifts between agricultural enterprises; and after all land not adapted to agriculture has been shifted to other uses, South Dakota farmers estimated that:**

- A. Both number of farms and rural farm population would increase, with the major increase in eastern South Dakota.
- B. Total land in farms would be less, with the average size of farm increased in some parts of central and western South Dakota, but decreased in eastern South Dakota.
- C. The total crop land acreage would decrease drastically, with a corresponding increase in pasture and all types of woodland.
- D. Acreage of all soil depleting crops including corn, oats, barley, rye and wheat would be markedly less.
- E. Hay and pasture acreage would increase more than any other items. County zoning laws might have to be enacted to bring about a shift of this nature and to prevent further exploitation of the soil. However, the farmers discussed this possibility, especially in western counties, and recommended further study along this line.
- F. A very material increase in cattle numbers was recommended with the major trend toward beef production to utilize grazing lands.

- G. Sheep should be increased in South Dakota, in the opinion of the farmers.
- H. Hog numbers should almost reach the 1929 high level under the long-time plan.
- I. Chicken numbers should be almost twice what they were during the low level of 1934.
- J. Horses should be increased even though it is recognized that power farming is eminently satisfactory on some farms.
- K. In general, under the long-time plan, adjustments in South Dakota should reduce the production of cash grain, increase the acreage of soil conserving crops at the expense of soil depleting crops, and tend to get the major portion of the State onto a livestock production basis.

**FARMERS RECOMMEND —  
LESS SMALL GRAIN MORE GRASS  
LESS LIVESTOCK THAN IN 1929**



**TO CONTROL EROSION, CONSERVE WATER  
AND  
IMPROVE THE FARM INCOME**

The above chart, which was part of a State Fair exhibit, shows what South Dakota farmers recommended for agricultural production for the State in answering question 2. The recommendations are compared to the year, 1929, which was used as the base year for all the farmers' estimates.



## ***Short and Long-Time Farm Plans Made by South Dakota Farmers***

**By S. W. Jones, Assistant Farm Management Specialist and  
State Leader of Agriculture Planning Project**

Cropping systems on many of our farms will not maintain soil fertility and control erosion. In South Dakota especially, a considerable acreage of land which is now being farmed should be growing grass.

How much land should be shifted from farm land to grass? Several authorities have ideas on the subject, but what does the farmer himself think about it? How much agricultural production should be accomplished in any one county, in the State, or the Nation?

With a view to getting farmers' answers to such questions, an agricultural adjustment planning project was launched in 1935 by the AAA and the Extension Service. The project was designed to reach into every county in the United States to get the judgment of farmers themselves on national problems, and at the same time to stimulate their thinking about these national aspects of the farm situation.

South Dakota farmers were given the opportunity to cooperate in this project, and responded to the opportunity in a thoroughly satisfactory manner. County agricultural program planning committees were appointed in each of the 69 counties of the State. In December, 1935, the county agents met with their county extension boards and chose the county agricultural planning committees. If there was no extension board, the county agent conferred with the chairmen of the AAA county commodity associations and secured their help in selecting the committees. All the main agricultural enterprises of the counties were represented on the committees, and in addition, bankers and Smith-Hughes teachers were included in the membership of some county committees. The membership varied from 10 to 20 persons.

The state committee in charge of the county agricultural adjustment planning project in South Dakota consists of: A. M. Eberle, director of the South Dakota State College agricul-

tural extension service; Gabriel Lundy, head of the South Dakota State College department of agricultural economics and chairman of the regional adjustment in farming project in South Dakota; R. D. Davies, extension service county agent leader; R. E. Johnston, extension service agronomist; W. E. Dittmer, Joe Hill, Clarence Shanley and L. I. Thompson, extension service district county agent supervisors; and S. W. Jones, extension service farm management specialist and state leader of the agricultural adjustment planning project for South Dakota.

Basic, historical data, taken largely from the censuses of 1919, 1929, and 1934 and from the regional adjustment in farming study, was prepared for each county in the State. The county committeemen, under the direction of the county agent and district supervisors, studied the basic data and outlook material at county meetings, then proceeded to fill out the schedules for the county, in some counties making the county report only after several days of study and deliberation.

Each county committee had to report probable agricultural production of the county under three different assumptions which were stated by the AAA and Extension Service as follows:

1. "Probable production of the various farm products in 1936, assuming normal weather conditions, present farming practices and prospective prices.
2. "Probable production of the various farm products in 1936, assuming normal weather conditions and prospective prices, without either production or marketing control, and if farm prices had been adjusted to maintain soil fertility and control erosion.
3. "Probable production of the various farm products after sufficient time has elapsed to permit such changes in farm management practices as are necessary to at least maintain yields and soil fertility, control erosion, and to permit such shifts between agricultural enterprises as seem clearly desirable and susceptible of practical accomplishment; and after all land not adapted to agriculture has been shifted to other uses."

The first of these three questions had to do with the **immediate** situation, without a farm program of any kind in effect. Question 2 was concerned with the **short-time** view of



the farm situation, assuming that only enough time had elapsed for farm practices to have been adjusted to maintain soil fertility and control erosion. To put it in simpler language—what would agricultural production be with a soil conservation program in effect? The third question is the **long-time** one, and it was generally agreed that approximately ten years would be required to effect the results asked for in its provisions.

### **FARMERS' ESTIMATES ON FARM PRODUCTION UNDER ASSUMPTIONS SET FORTH IN THE THREE QUESTIONS**

**Rural Farm Population**—In all their estimates, the farmers used the 1929 census figures as a base and reported their estimate of each item as a per cent of the 1929 figure. During the depression and drought the actual trend of rural farm population in South Dakota has been downward—from 389,431 in 1929 to 358,204 in 1934. Under questions 1 and 2, the farmers estimated that rural farm population would be maintained at about the 1929 level. Under question 3, however, they estimated that rural farm population in the State would rise to 411,190, an increase of 21,759 persons. Allowing five persons per family, this would mean an increase of 4,351 farm families over the 1929 total. At first glance it may seem that the farmer committeemen have estimated an unwarranted increase in rural farm population for the State. It must be remembered, however, that they were looking ahead at least ten years and assuming a set of farming conditions far more favorable than those prevailing now.

**Number of Farms**—A slight decrease in the number of farms over the State as compared to the 1929 figure was estimated by the county committeemen. They estimated nearly 2,000 farms less under the immediate and short-time farm plans of questions 1 and 2, but raised their estimate for the long-time view, provided under question 3, to only 529 farms less than in 1929, or a total of 82,628 farms in South Dakota 10 years hence.

**Size of Farms**—The logical next step after a discussion of numbers of rural population and numbers of farms is to see about how large the average farm will be and how many people will live thereon. From 1929 to 1934, size of farms was almost stationary, with a slight trend toward the larger farm.

The average size for the State was 438 acres in 1929 and 445 acres in 1934. The county committeemen estimated that the largest average-sized farm would be found if there was no farm program of any kind in operation. This farm would be about 454 acres in size as a State average. Under question 2 or after enough time had elapsed for a soil conservation program to be put into effect, the average size of farm in the State would be reduced to 446 acres, and taking the long-time view, the county committeemen estimated that the average size would be 441 acres, which would still be larger than the 1929 average. In 1929, an average of 4.6 people lived on each farm in the State as compared to 4.9 persons per farm, which is the farmers' estimate for question 3.

Of course not all county committeemen estimated fewer acres per farm under the long-time plan. In general, this was true in the eastern tiers of counties, but in the central and western areas of the State, larger farms were generally recommended by the farmers serving on the committees. In Sully county, for example, the average size of farm for the county in 1929 was 778 acres; it was down to 756 in 1934, and the recommendation of the county agricultural planning committee was 800 acres.

### **CROP ACREAGE AND PRODUCTION:**

**Corn**—Acreage of corn for all purposes in South Dakota in 1929 was 5,094,809 acres. With no farm program of any kind in effect, the farm committeemen estimated that this acreage would rise to 5,106,004. Taking the long-time view under question 3, they estimated that total corn acreage would fall to 4,981,333. The census reports crops on the "harvested acre" basis, so, of course, in the dry year of 1934, the harvested acreage was only about half that of 1929. However, the tendency for the past 10 years has been to increase corn acreage. Some of the northern counties, not usually thought of as corn-producing, have justified increases in corn acreage by adapting varieties to the climate. A notable example is Alta yellow dent.

A decrease in corn acreage for the State as a whole as recommended by the committees of farmers is logical, however, when one considers the "blow" areas and the number of years of light rainfall to which some parts of the State are subjected. A notable increase in corn for silage was recommended by the farmers in replying to question 3.

**Sorghum**—More and more emphasis has been placed on sorghum production in recent years since sorghum has demonstrated its drought-resistant qualities. Sorghum acreage in 1929 was only 15,655. It was 472,890 in the dry year, 1934, and the farmers recommend that the State produce about 420,000 acres every year. Fully 90 per cent of this would be cut for forage or silage, with the recommendation again in favor of the silo.

**Small Grain**—The largest single change in crop production recommended by South Dakota farm committeemen is that in the long-time farm plan, small grain acreage must be reduced nearly 1,500,000 acres below the 1929 total. This is a 16 per cent reduction. The acreage of small grain harvested in 1929 was 9,088,000. In answering question 3, farmers estimated that a total of only 6,620,561 acres of small grain should be planted, if soil fertility is to be maintained, erosion controlled, and land not adapted to agriculture be put to other uses.

**Wheat** reduction in South Dakota will amount to 965,000 acres below the 1929 total in the long-time program—a 28 per cent decrease. Only 2,574,382 acres are recommended as compared to 3,539,320 acres grown in 1929. Without a farm program of any kind, the farmers estimated that wheat production would jump right up almost to the 1929 figure (3 per cent less), but would be 12 per cent, or 100,000 acres less than in 1929 if a soil conservation program such as suggested in question 2 were in effect.

Brown county farmers, in the heart of the spring wheat area in South Dakota, recommend that wheat acreage in their county be cut 21 per cent below the 1929 acreage in a long-time farm program. A reduction of 19 per cent below 1929 was their recommendation with a soil conservation program in effect. Without a farm program of any kind in operation, these Brown county farmers thought that wheat production would be right back to almost the 1929 total, or, to be exact, they estimated 251,957 acres of wheat would be planted in the county if there were no farm program, which is only 14,605 acres or approximately five per cent less than the 1929 total.

The question naturally arises as to what these former wheat acres would be used for. Legume acreage increases were recommended all over the State. Grasses, such as crested



and western wheat grass also are recommended. An increase in rye production was suggested in most areas, this to be used for pasture and hay as well as for the production of grain.

It was generally recognized that much of South Dakota's wheat land has been subject to blowing in recent years. The program outlined by the farmers—seeding grasses, legumes, rye for cover crop in the Fall—will reduce or eliminate blowing in the wheat area and help to build up the soil. Under the present agricultural conservation program, summer fallowing is recognized as a soil conserving practice in most of the South Dakota spring wheat area. Considerable summer fallowing is expected in the future according to the farmers' reports. However, more of it will be for the purpose of turning under legumes and other green manure crops to really improve the soil than just to plow up the dried out remains of stubble and weed patches in order to qualify for a soil conservation payment.

**Oats** is one of the crops grown generally in all parts of South Dakota. A total of 2,334,990 acres of oats was harvested in 1929. Oats, like other cereal crops, cannot be classed otherwise than "soil depleting." A 22 per cent reduction in the number of horses in the State from 1929 to 1934, was a fact that farmers also took cognizance of in passing judgment upon oats production. Even without a farm program of any kind farmers were of the opinion that with a reduction in horse numbers such as already indicated, oats acreage would be reduced 23 per cent below the 1929 total of 2,334,990 acres. This would make the acreage 1,815,348. With a soil conservation program in effect, the farm committees estimated that the oats total would be 1,699,185 or 58 per cent below 1929. Taking the long-time view, farmers of the State recommended that oats acreage be cut a total of 37 per cent below 1929. This would make a total of 1,588,639 acres of oats.

**Barley** is another crop grown quite generally over South Dakota. In 1929, there were 2,061,136 acres of it in the State. Farmers estimated that with no farm program at all, barley acreage would go up to 2,094,102. With a soil conservation program in effect, the acreage would be cut 6 per cent below 1929 or down to 1,941,309 acres. Under question 3—the long-time question—farmers estimated that barley should go down to 1,734,508 acres or 16 per cent below 1929.

Increasing use of barley as a hog feed and the growing of barley for malting purposes account for the fact that barley acreage wasn't recommended for such severe cuts as acreages of some other crops.

**Rye** acreage, contrary to the trend recommended for most crops, should increase substantially, said the agricultural planning committeemen. With no farm program of any kind, they estimated that rye acreage would go 45 per cent above 1929, or an increase from 229,753 acres in 1929 to 511,119 acres. With a soil conservation program in effect, rye acres would number 498,547, and should drop to 460,270 under a long-time farm program in the State.

The recommended increase in rye acreage is justified on the basis that rye makes an excellent cover crop when seeded in the fall, thus preventing soil blowing during the winter. It also makes excellent late fall and early spring pasture, thereby taking a load off the native and other tame grass pastures. It also is clipped for hay and turned under for green manure. The feeding of rye grain is also on the increase. Considering everything, one cannot help but feel that the farmers of South Dakota were recommending a very commendable farming practice when they approved seeding more rye under any conditions.

**Flax** acreage was recommended for a drastic reduction even though South Dakota has long been considered one of the best flax producing states. This can be accounted for, however, in pointing out that the farm committeemen were afraid that any other suggestion in regard to flax acreage would result in more prairie sod being broken on which to grow the flax. South Dakota farmers, like most others, have found that prairie sod produces good flax. Varieties have been developed, however, that give even larger yields on old ground, but there the problems of weeds and dry weather make flax production risky. Consequently, from a high of 669,319 acres in 1929, we find the farmers of the State recommending a reduction to 262,752 acres under the long-time farm plan. Their recommendations under questions 1 and 2 were for an acreage almost exactly the same as that recommended under question 3. Summarizing, this means that flax should be grown, wherever it is profitable, on old ground, but that no new ground be broken for its production.

Hay acreage, tame and wild, is due for an increase, regardless of what farm planning or lack of planning may develop, is the prediction of the farmers on the agricultural planning committees.

Total tame and wild hay amounted to 3,487,953 acres in 1929. With no farm program of any kind, farmers believe that hay acreage in the State would increase to 3,869,306 acres in order to replace tame hay fields killed by dry weather and grasshoppers. With a soil conservation program in effect, the acreage of hay should mount to 4,269,828, and under the long-time program should be 4,875,079, in the estimation of the farmers.

So large an acreage of hay would help to retire unsuitable land from production, put legumes on rotation land, keep "blow" areas from blowing and furnish feed for more cattle and sheep than were on farms in South Dakota in 1929.

Much has been written so far about putting former corn and grain acreage into legumes. It is worth noting that the farmers recommend that very thing. More than one-third of the increase in hay acreage is to consist of new alfalfa seedings, if the farmers' own recommendations are followed. The rest of the increase is made up with other tame and wild hay, sweet clover constituting a large part of the increase.

Pasture in a State with a large part of its area classed as range or grazing land, is an important item. There were 15,916,740 acres in pasture, tame and wild, in South Dakota in 1929. There were 36,470,083 acres in farm land in the State that year, so it can be seen that pasture alone represents nearly one-half the farm acreage in the State any given year. Farmers estimate that pasture acreage should increase whether or not there is a farm program. Some reseeding of old pastures as well as seeding of new ones will be necessary. With a soil conservation program in effect, or under a long-time plan, pasture acreage will increase at the expense of corn and grain land in order to maintain soil fertility and control erosion. Plowable pasture acreage will increase under these conditions, but with no farm program of any kind there will be a tendency for plowable pasture acreage to decrease because of the desire of farmers to put more cash grain crops in land that hasn't blown in recent years.



**"Soil depleting"** and **"soil conserving"** are the two classifications into which we have become accustomed to divide crops since the agricultural conservation program became a reality. The main objectives of the agricultural conservation program in 1936 were to convert 10 per cent of the land formerly in production of soil depleting crops to the production of soil conserving crops.

For this reason it is interesting to compare the farmers' judgements on crop production under a system of soil conservation. Acreage of soil depleting crops for the State as a whole would be 4.9 per cent less than in 1929 if a soil conservation program were in effect, in the opinion of the farmers. Acreage of soil conserving crops would increase 33.4 per cent above that of 1929. Under the long-time conditions suggested in question 3, South Dakota farmers estimated that acreage of soil depleting crops in the State should decrease 13.7 per cent below the 1929 figure. Acreage of soil conserving crops, under a long-time farm plan, should increase 73.7 per cent above the acreage of 1929.

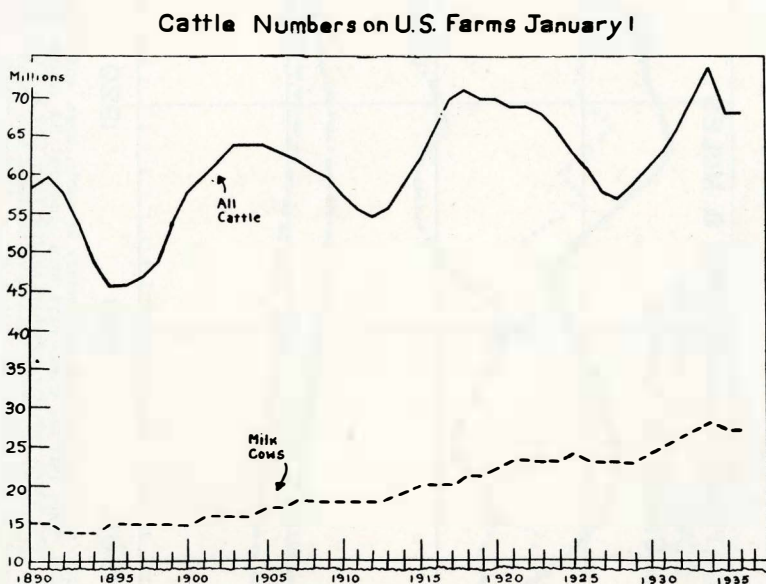
### **Livestock Numbers and Production**

**Cattle** numbers were at a low point in South Dakota when the agricultural planning committees were asked to make their estimates. The government's drought cattle buying program of 1934 had helped farmers move so many cattle out of distressed areas that cattle numbers in South Dakota were reduced as much in one year as normally takes place in eight years.

Assuming no farm program of any kind was in operation, the farmers estimated that the trend would be for farmers to put more land into cash crops for quick sale, leaving less feed on the farm. The result would be a rather slow return to normal cattle numbers. In answering question 2, they estimated that a soil conservation program would mean greater production of hay and pasture and less of cash grain. This would necessitate raising of more hay-consuming animal units, hence more cattle numbers. Under the long-time program, cattle numbers should be increased still more, in the opinion of the farmers. In 1929, the total of all cattle and calves in South Dakota was 1,871,000 head. Using this as a base, cattle numbers would be 11 per cent less with no farm program in operation; they would be 5 per cent less with a soil conservation program

in effect; and under a long-time farm plan cattle numbers would be 19 per cent greater than in 1929.

Fewer cows would be kept for milk regardless of whether or not a farm program of any kind was in operation, in the opinion of these South Dakota farmers. This is a consistent view for the farmers to take because an increased acreage of grazing land, as anticipated in a long-time program, would be more conducive to beef production than to dairying. Likewise, with corn and grain acreage cut down, there would be less of these valuable dairy feeds in the State as a whole.

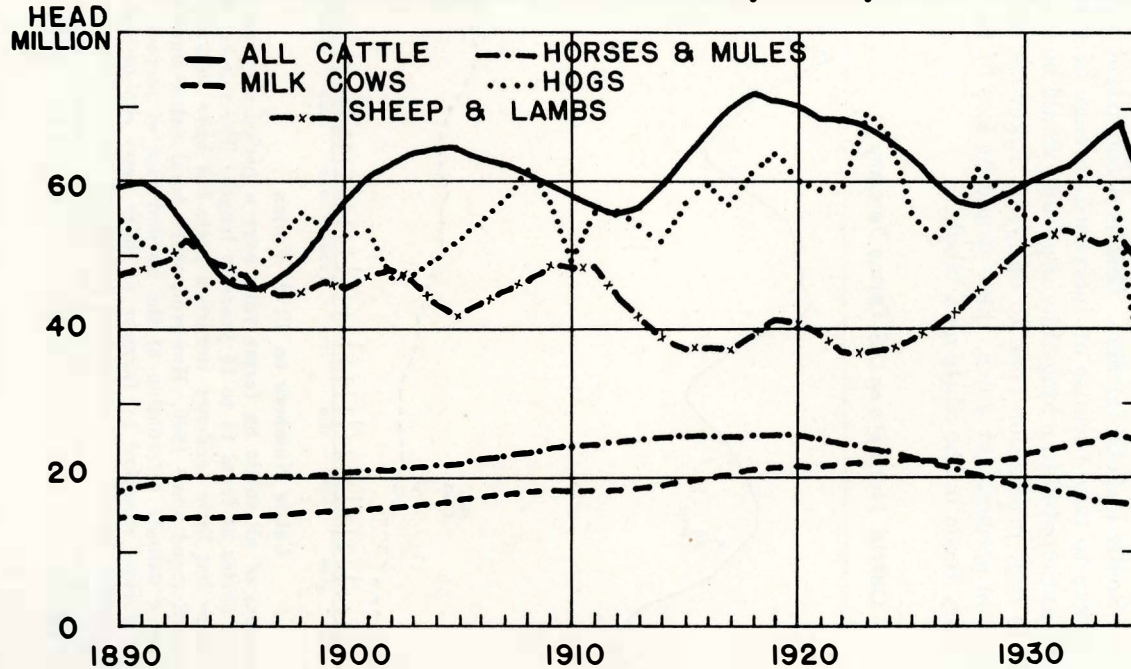


**Cattle Numbers on U. S. Farms**

The numbers of all cattle on farms vary over a period of years in fairly regular cycles of from 14 to 16 years in length. The numbers of milk cows show but little tendency toward a cycle but have followed a distinct upward trend since 1900. However, when total cattle numbers are declining, a definite retardation of the normal rate of increase in the number of cows classified by farmers as dairy cows can be noted. The effects on cattle numbers of the severe drought of 1934 and the Government purchases of cattle are reflected in the greatly reduced numbers of cattle on farms January 1, 1935 and 1936, as compared to January 1, 1934.

In some of the better dairy farming areas of the State, however, the farmers recommended that more dairying be done. For example, in the area embracing Brookings, Clark,

## LIVESTOCK: NUMBERS ON FARMS, JAN. 1, 1890 TO DATE



From 1890 to about 1920, the long-time trends in numbers of cattle, hogs, and workstock were upward while that of sheep was downward. Since 1920 the trends have been somewhat the reverse. Cattle numbers declined to 1928 and then increased to 1934. Sheep numbers increased sharply from 1923 to 1932 while hog numbers fluctuated widely from year to year, but trended downward. Milk cows (included also in all cattle numbers) have trended upward over the entire period, 1890 to 1934. Each species has a different cyclical movement around its trend. Sharp curtailment in hog production and unusually heavy slaughter of cattle and sheep for both commercial and government account in 1934 caused a marked reduction in numbers of all meat animals by the end of that year.



Hamlin, Deuel and Kingsbury counties, a 16 per cent increase in milk cow numbers is recommended for the long-time plan. Improved dairy breeding and management practices under the long-time program to increase milk production an average of 17 per cent per cow milked are favored by the farmers.

Beef production should be increased in South Dakota, according to the view taken by farmers of the State, especially if a long-time agricultural program is in effect. Compared to 1929, without a farm program of any kind, net live weight of beef and veal produced in the State would be 15 per cent less. Production of beef and veal would probably still be somewhat below the 1929 high with a farm program in operation such as suggested in question 2. With land unsuited to cultivation being put back to grass and with a program in operation to maintain soil fertility and control erosion, the farmers estimated that production of beef and veal in South Dakota would be 16 per cent greater than in 1929.

As pointed out previously, lack of a farm program to encourage legume, grass and forage production rather than cash grain production would tend to cause neglect or delay on the part of farmers in getting back into beef production. The more comprehensive the farm program to conserve the soil with legumes, grasses and forage, the greater the natural tendency on the part of farmers to turn to beef cattle to use the products from soil conserving acres. In the eastern part of the State, more feeding of beef cattle will be the trend, with the feeder making use of corn and grain in addition to roughage.

**Hog** numbers would tend to average below those of 1929 regardless of any farm plan in South Dakota, in the estimation of the committeemen. From a high of 2,800,000 on January 1, 1930, hog numbers declined to a low of only 543,900 head on January 1, 1935. From this low point, farmers estimated, that hog numbers would rise to 1,302,390 without a farm program of any kind.

In replying to question 2, farmers estimated that hog numbers should reach 1,714,095 for the State as a whole, and should go up to 2,766,691 under the provisions assumed in question 3. This latter relatively high figure may appear hard to justify unless one studies the situation a little further. More cattle feeding is usually accompanied by increased hog feeding on the same farm since it has been found profitable to keep a

certain number of hogs in cattle feeding yards to salvage wastes in cattle feeding. Increased feeding of barley, rye, oats and wheat to hogs has been found profitable by farmers and experiment stations alike in recent years. This practice is recommended by farmers of the State, especially in areas where these grains are raised more profitably than corn, thus keeping more of these grains off the market and at the same time leaving more soil fertility on the farm in the form of manure.

Farmers on the committees realized that they had to take into consideration cycles in hog production. This made estimations rather difficult. In the last analysis judgment was made on the assumption that high peaks and low points in hog production in the future will be fairly well levelled.

**Sheep** numbers have held at a fairly constant level in South Dakota since 1929. From 1,189,000 head January 1, 1930 they rose to 1,319,537 head January 1, 1935. The government's sheep purchasing program during 1934 had nowhere near the effect on sheep numbers that it had on cattle numbers, as can be judged from the statistics given above.

Without a farm program of any kind, farmers estimated that sheep numbers would be 6 per cent above those of January 1, 1930, but 4 per cent below the total on the same date in 1935. As pointed out previously, under these circumstances, farmers estimated that there would be small inclination to develop grazing lands and stock them, and more of a trend toward cash grain production.

With a soil conservation program in effect, they believe that the trend should be toward more sheep to utilize legumes, grasses and roughage produced on soil conserving areas. Numbers of sheep in South Dakota should be about 1,287,000 according to the committees, or 8 per cent above the January 1, 1930 total, but still 7 per cent below the January 1, 1935 figure.

Taking the long-time view of the sheep situation in South Dakota, the committeemen estimated that sheep numbers should rise to 1,416,830. This amounts to a 19 per cent increase above the total January 1, 1930 and an 8 per cent increase above the total January 1, 1935.

Increase in total sheep numbers means not only more ewes but also more lambs fed in eastern South Dakota yards. Under question 1, ewe numbers would be 793,993; they would total

799,777 under question 2, and would mount to 865,129 under question 3. Net live weight production of lamb and mutton would be 58,106,000 pounds, 59,609,000, and 67,828,000 pounds under the three respective questions.

Butte county in western South Dakota encourages a new trend in sheep raising in that area. More and more sheepmen in the sugar beet area in Butte county are feeding lambs out right there on the farms and ranches in the irrigated section rather than shipping them east as feeders. Beet pulp is quite generally used in these lamb feeding operations. Farmers of the county estimate that in the future 50,000 to 60,000 lambs a year should be shipped into the county at about 60 pounds live weight apiece and fed to weigh about 75 pounds before being sent on to market.

**Chicken** numbers should be quite generally increased all over South Dakota, believe farmers who worked on the agricultural planning committees. Statistics for January 1, 1930 are not available, but as compared to January 1, 1935, the farmers felt in answering question 1 that numbers of chickens would tend to increase as much as 32 per cent.

There were 5,524,342 chickens on farms in South Dakota, January 1, 1935. The number would be 7,314,375, the farmers estimated, in answering question 1. In replying to question 2, they judged that numbers of chickens should go up another 14 per cent, making a total of 8,080,271, or 46 per cent above January 1, 1935. Under the long-time provisions implied in question 3, chicken numbers should be 10,697,424, according to the farmer committeemen, a 93 per cent increase above the January 1, 1935 total. Chicken numbers on January 1, 1935 were, of course, at a low point in the history of the State, following the dry year of 1934. This accounts for the large increases over the figure on that date recommended by the farmers on the committees. Under the long-time plan, the average farm in the State would have on it a flock of about 125 chickens. This flock should produce 1,134 dozen eggs and 220 chickens each year. Farmers estimated that the average yearly production of eggs per hen for the State as a whole should be 114.

**Horse, mule and colt** numbers in South Dakota, in common with the situation elsewhere in the United States, have been declining since the early 1920's. Horses numbered 632,872 January 1, 1930, but had dropped to 461,490 by January 1, 1935. A



still further decline, down to 440,497, was anticipated by the farmers if no farm program of any kind were put into operation. Under question 2, the committeemen thought that the impetus given legumes, grazing and forage crops would cause enough of a trend back into horse production to bring the total up to 461,300 in the State. Under the long-time plan, the farmer committeemen estimated that all horse, mule and colt numbers in South Dakota should reach 592,721 head.

This recommendation springs primarily from the desire of the farmers to increase their own market for oats, hay and grass. Many committeemen, however, felt that a trend back to horses as a source of power was eminently justifiable on the grounds that too many farmers have hundreds of dollars worth of tractors and power machinery depreciating in fence corners and old sheds, and never being used. Committeemen pointed out that when a farmer doesn't raise enough to feed his horses, he can at least sell them, but that the market for second hand tractors and power machinery is very limited. In general, power farming was recommended for the big operator if he wants it, and an increase in horses to keep a good supply of young work stock for the small farmer.

### **Sudden, Drastic Changes Not Expected**

In conclusion, it is well to point out that the farmers' estimates on questions 2 and 3 are especially important at this time. It is still too early in the year to measure actual results of the present soil conservation program as compared to the farmers' answers to question 2. Moreover, measuring results of a soil conservation program during a dry year like 1936, would hardly be fair to the program. This only goes to emphasize that the farmer committeemen expect no sudden, sweeping changes in farming systems. In their answers to questions 2 and 3 they contemplate that the trend toward the goals they have set will necessarily have to take place slowly, or else progress made toward soil conservation and proper land use will not be permanent.

### **Agricultural Program Planning**

Agricultural planning really began right after the World War with farm management studies which were carried on in the early years of extension work. The agricultural outlook programs which were begun in 1923, together with the farm

management and related extension work, were designed to assist farmers in making adjustments. This work has spread rapidly and now encompasses most of the agricultural counties in the United States. Prior to 1933, however, it was not possible to develop a coordinated national program of agricultural adjustment because there was no mechanism for enabling farmers to work collectively toward specific goals. Under the Agricultural Adjustment Act, machinery for adjusting production to demand has been set up. Thus far, the adjustments under the Act have been designed to meet an emergency. As the emergency passes, the question arises as to what the long-time adjustment programs should be.

It has been suggested that any national policy looking toward a transition from emergency to long-time adjustment programs should provide for:

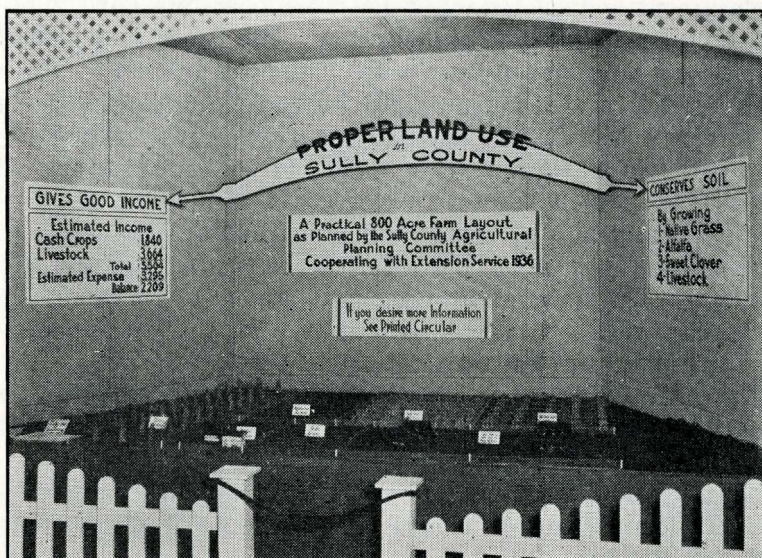
1. Continued balancing of total production with market requirements so as to aid farmers in securing a fair share of the national income.

2. Conservation of the soil resources of the Nation and the development of a sound land-use program.

3. Decentralization and simplification of adjustment procedure.

With the support of the federal government in working toward these objectives, the county agricultural adjustment planning project puts the question to every community: "What are the detailed specifications for such a program?" It is, in short, a proposal for large-scale cooperative planning in the development of continuing county, state, and national agricultural adjustment programs.

Planning agricultural production to take advantage of the highest possible price level at any given time becomes the job of the individual farmer when thinking in terms of his own farm income. Cooperation with other farmers in the state in planning agricultural production to conserve the soil, maintain yields, take inefficient land out of production, and keep agricultural production at a level where it will command the best possible price will go far toward ironing out fluctuations in the general price level. Agricultural planning not only anticipates conserving the soil, but secondarily, it hopes to maintain production at a more nearly constant level than in the past, thereby having a beneficial effect on violent swings in the price cycle.



Booth erected at the 1936 South Dakota State Fair at Huron, showing the size and organization of a general Sully county farm as recommended by the Sully county agricultural planning committee in answering question 3.

The Sully county committee members aided by their county agent, U. J. Norgaard, spent more time on their agricultural planning project than any other county in the State and have given the results of their deliberations wide publicity in meetings, news stories, radio talks, and exhibits such as this.

Under the long-time farm plan, the general farm in Sully county should be not less than 800 acres in size, according to the committee. A total of 350 acres or 43 per cent of the land in the farm should be in soil building and soil conserving crops. Legumes should make up 23 per cent of the total farm area, and 20 per cent should be in wild, native grass pasture. The remaining 57 per cent of the farm may be planted to soil depleting crops, in the judgment of the committee. Small grain represents 300 acres or 38 per cent of the farm area, with 125 acres of corn and 25 acres of sorghos combining to make up the remaining 19 per cent of the total farm area. Since Sully county is in the spring wheat area, the committee recommended that 41 per cent of the small grain acreage be in wheat. This amounts to 125 acres.



The committee recommended that this general farm should have 12 milk cows, 9 stock cows, 10 yearling and two-year-old heifers for replacements, 12 long-yearling steers to be marketed at 750 pounds, one bull, 14 sows, one boar, 250 hens, four horses and one tractor, besides other machinery.

The Sully county committee estimated that assuming normal yields and prices, the gross annual cash sales from the farm should amount to \$5,504. Included in this estimate is \$257 debited to the home for meat and butterfat furnished by the farm. Gross cash expenses, including \$600 for interest and \$300 for taxes, amount to \$3,295 yearly, leaving a balance of \$2,209 as the farm family income to pay for the family living, recreation, life insurance, etc.

An itemized statement of anticipated receipts and expenses, as outlined by the Sully county committee in laying out its 800-acre farm plan, is given below:

RECEIPTS				EXPENSES	
Item	Amt. Sold	Unit Price	Total Value	Item	Amount
Wheat -----	1100 bu.	\$.80	\$880	Twine -----	\$ 75
Flax -----	120 bu.	2.00	240	Threshing -----	300
Corn -----	1200 bu.	.60	720	Seed bought -----	50
Butterfat -----	1600 lbs.	.35	560	Insurance on buildings -----	25
Cull cows -----	5 hd.	50.00	250	Taxes -----	300
Long yearlings	8250 lbs.	.07	577	Auto expense -----	150
Sows -----	4200 lbs.	.07	294	Tractor expense -----	450
Pigs -----	16800 lbs.	.08	1344	Bldg. depreciation and repair	356
Eggs -----	1200 doz.	.25	300	Machinery -----	139
Poultry -----	548 lbs.	.15	82	Hired labor -----	450
Meat and butterfat for home			257	Medicine and vet. fees -----	60
TOTAL RECEIPTS -----			\$5504	Baby chicks bought -----	50
				Miscellaneous -----	90
				Interest on \$10,000 @ 6%--	600
				TOTAL EXPENSES ----	\$3295
RECEIPTS -----			\$5504		
EXPENSES -----			3295		
BALANCE -----			\$2209		

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