



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

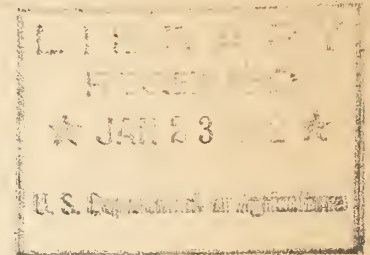
1.941

A5F221

SOUTHERN GREAT PLAINS

UNITED STATES DEPARTMENT OF AGRICULTURE

Bureau of Agricultural Economics



AGRICULTURAL ADJUSTMENTS IN THE SOUTHERN GREAT PLAINS
TO MEET DEFENSE AND POST-WAR NEEDS

Amarillo, Texas

Revised
November, 1941

AGRICULTURAL ADJUSTMENTS IN THE SOUTHERN GREAT PLAINS
TO MEET DEFENSE AND POST-WAR NEEDS

<u>Contents</u>	<u>Page</u>
Introduction	1
The problems of production adjustment	2
Probable adjustments, 1943-45	3
Desirability of the adjustment in the long-run	8
Adjustments for the corn area	15
Adjustments for the range area	18
Adjustments for the wheat-range transition	
area	22
Adjustments for the wheat area	25
Appendix	28

Introduction

This report presents in summary form, information concerning the recent levels of agricultural production, expected short-run changes in production and desirable long-time adjustments for the major areas of the Southern Great Plains. This material has been developed over the past several months by the Bureau of Agricultural Economics, with informal cooperation by workers in State Colleges and Experiment Stations and regional personnel of the various action agencies. Consideration has been given to the recommendations for production adjustment made by State and county agricultural planning committees.

This report suggests an approach to the problem of production adjustments by taking into account production alternatives and good farm practice rather than mechanically, through the use of base acreages or acreage trends without regard to other considerations.

Conditions arising out of the war emergency will stimulate broad adjustments in agricultural production. There will be changes in the prices received by farmers and in farm expenses. The direction and degree of these changes will differ widely between commodities. It is probable that the agricultural programs will give increasing attention to the encouragement of production of those products which are urgently needed at home and abroad.

An attempt is made in this report to analyze the agricultural adjustments now under way and in prospect in the light of the needs of the war emergency period and with respect to desirable long-run adjustments. Two sets of adjustments are considered: (1) probable adjustments during

the defense period and a discussion of the desirability of these changes; and (2) desirable long-time adjustments (for the assumptions upon which these adjustments are based see the appendix).

Probable adjustments are those which can be expected on the basis of producer response to an assumed set of prices and costs, with the assumption that agricultural programs will be continued without any significant changes in allotments, quotas, or rates of payment, from those now in effect. The prices upon which these estimates are based are shown in tables 13 to 15.

Adjustments considered desirable in the long-run are those which would return a dependable and adequate income to the maximum number of producers and still permit conservation of the soil. These adjustments assume the average farm prices for the period 1935-39 (see table 12) as the prices that are likely to prevail over a longer period.

The expected adjustments in production indicate problems that may be encountered in reaching the desired goals. The long-run desirable adjustments indicate the desirable direction of adjustments from the standpoint of a permanent and stable agriculture for the area. A knowledge of them will be of assistance not only in pointing out situations in which the goals for defense production will be in line with desirable long-time production adjustments for the area, but also they can be used to detect problems of maladjustment that may arise in meeting the defense production goals.

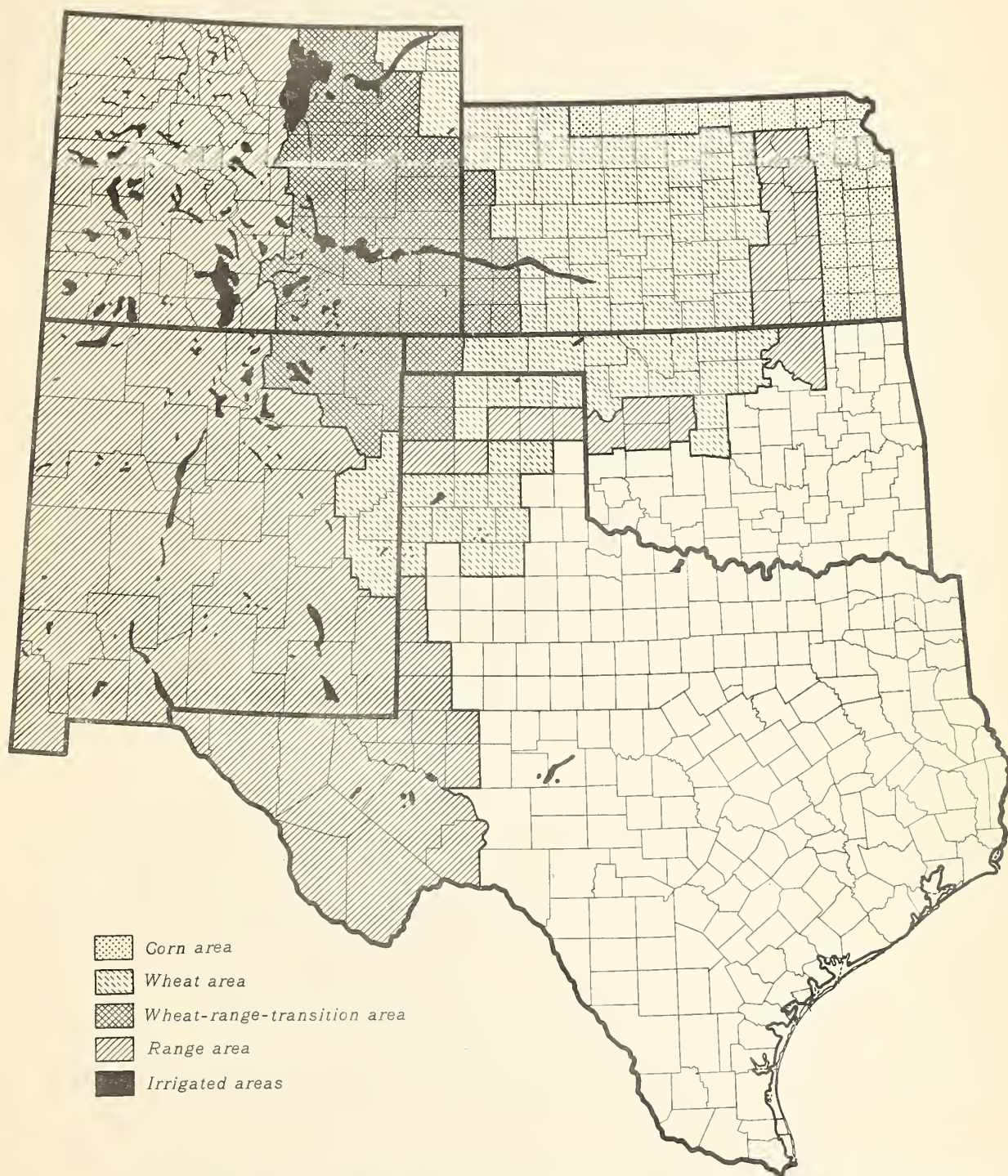
The material in this report was prepared on the basis of sub-areas having roughly similar production opportunities. Adjustment estimates for these sub-areas were then combined for the major areas considered in this report.

THE PROBLEMS OF PRODUCTION ADJUSTMENT

Agricultural adjustment in the Southern Great Plains presents a complex and difficult problem, at the root of which is the undependable and capricious nature of production. Even in the more hazardous portions of the area, there have been years in which the average yield of wheat was almost equal to that for the rest of the country, but there have been many years when it was only half as great. In favorable years, this country produces food and feed in abundance and far in excess of its own needs; in years of drought the hazardous areas are the "poor relation" of American agriculture, and other areas are required to contribute to the sustenance of its people and its livestock.

Plans for production adjustment should take cognizance of the climatic limitations of the area. It should be kept in mind at all times that dry-farming must be opportunistic to a considerable extent, and that the crops to be grown, the acreage to be planted, and the yields are influenced by the weather. Plans for livestock should include adequate provision for feed reserves, particularly in this time of emergency, to guarantee that a drought period will not call for the transportation of a large quantity of feed into the area. Recommendations for the shift of cropland to grass

PRODUCTION ADJUSTMENT AREAS IN THE SOUTHERN GREAT PLAINS



should consider the long period that will elapse before revegetation is complete and should provide adequate feed-crop production during that time. The climatic limitations on subsistence production should not be ignored; this should be especially true in planning for the post-defense period when new farms may be needed as a buffer against reduced industrial and military employment.

Upon a climatic environment which makes changes in production necessary and desirable, there has been established an institutional framework which prevents changes in production and in farm organization. Nonresident ownership of land is common and there are numerous nonresident operators in some parts of the area. Land is held in small tracts and tenants frequently hold leases with five or six landlords, some of whom they never meet. Landlords, under the share-rent system, generally require that a considerable part of the cropland be in cash crops and are reluctant to provide adequate housing and other facilities for such enterprises as poultry and dairying. Land values, into which have been capitalized the speculative hopes of return from wheat farming, can be reduced only with great difficulty to levels consistent with livestock farming and ranching because the credit and public finance structures of the area have been built upon them.

PROBABLE ADJUSTMENTS, 1943-45

It is not expected that there will be a significant change in the 1940 acreage of total cropland by 1943-45; nor does a change seem desirable. The acreage fallowed can be maintained at the present level in some areas and increased in others without returning to crop use the land now under the restoration program. However, full cooperation with agricultural conservation programs will be necessary to prevent some individual farmers, stimulated by the hope of high prices, from breaking out new land or placing restoration land back into crops.

Wheat plantings will be governed by acreage allotments. This will probably reduce the 1942 wheat acreage by about 10 percent. Sharp reductions from the 1940 figure will be shown in eastern Kansas and one or two areas in Oklahoma, but there will be little change in the "Dust-bowl" areas, because wheat acreages had been reduced by drought in 1940. For the entire region, this adjustment, or a slightly greater reduction, appears desirable.

A 29 percent increase in corn acreage is expected, nearly all of which will take place in Kansas; Colorado will increase corn production moderately; elsewhere the increases will be minor. The need for increased feed production makes this a desirable adjustment and it appears that the increase will go about as far as it should. On some individual farms the increase may be more than is desirable.

Oats will show a small increase in acreage and a large increase in production because the increases will take place mainly in areas of high yields. Barley will show a substantial increase in acreage and production. The adjustments in both crops will approximate the desirable. In a few

sections in which the expected increase in one of these two crops is not sufficient to meet the 1942 goal, the expected increase in the other exceeds the goal.

Flax is a minor crop, confined almost entirely to Kansas. The acreage is expected to increase 9 percent.

Dry beans, mostly pintos, will increase slightly. A reduction, particularly in dry-land areas of Colorado and New Mexico, would be desirable. A considerable carry-over of beans is reported for both Colorado and New Mexico, and a further reduction would permit a greater increase in feed production.

The small acreage of soybeans, primarily in Kansas, will be increased 25 percent. The acreage of all hays (except sorghums) will probably increase about 2 percent. A somewhat greater increase would be desirable.

Considerable adjustment can be expected in sorghum acreage. The tendency to replace corn with sorghum in the southern part of the region can be expected to continue, and to extend northward to some extent. The change in the 1942 AAA program, which eliminates the general soil-depleting allotment, will stimulate the planting of grain sorghums. However, a measure of the expected change in sorghum acreage from 1940 indicates that only a slight increase in the acreage of sorghums will occur. This is because of the exceptionally large acreage of sorghum reported for that year. In terms of both the 1939 and 1941 acreages, the expected acreage represents a considerable increase.

A 10-percent increase in potatoes is anticipated, largely in Colorado. In view of the nature of the areas in which this increase will occur, it would be better to retain potato acreage near the 1940 level. Little change is expected in sugar-beet acreage. The assumed prices offer little inducement for expansion, even without quotas.

Broomcorn may increase slightly because it may be advantageous for some farmers who have soils adapted to the production of both broomcorn and wheat to increase their acreage of broomcorn in order to offset the reduction in cash income resulting from the expected reduction in wheat acreage.

Commercial vegetables are confined principally to Colorado and include among others, green peas, cantaloups, onions, cabbage, cauliflower, snap beans, tomatoes, and lettuce. Acreage and production can be expected to increase 11 percent whereas an increase of 14 percent is considered desirable. Only about 15 percent of the vegetables are grown for processing, so it should be possible to expand production considerably without creating serious problems in processing.

A reduction of 9 percent in horse and mule numbers is expected. This will be more than is desirable because it will add to the demand for power machinery and fuel, but it will release an additional acreage for feed production and conserve the use of farm labor.

Cattle numbers are expected to increase 6 percent and beef and veal marketings by 14 percent. Increases in numbers will largely represent increases in present herds. The condition of the range has been improving since the droughts of the thirties, but cattle numbers have been increasing and are now at a relatively high level. In most localities the range is stocked at or beyond its normal carrying capacity. Hence, increases in the number of cattle should be limited to the individual ranches which remain understocked and to those farms where the establishment of new herds would improve the farm organization. In most localities beef herds should be culled closely. The sale of old dry fat cows and off-type cows of all ages at the current high prices for slaughter cattle would enable ranchers to meet marketing goals; liquidate indebtedness; bring cattle numbers more nearly in line with range and winter feed supplies; and prepare for a low price cycle by creating a herd of young, high producing stock which could "grow through" such a period.

Some increase in beef marketings can be expected from increased weights of cattle and calves as a result of heavier feeding. This increase is highly desirable for it will add to the market supply of meats very quickly and because it will not result in overstocking of the ranges. But increased weights are contingent upon increases in the feed supply.

Hog numbers are expected to increase 23 percent and pork marketings by 31 percent. Most of this increase will come from Kansas, but there will be a moderate increase in all States. It would be desirable to increase hog production further in Colorado and the Great Plains part of Oklahoma. Increased production of pork will result from better care and management and from increased weights. Present governmental policies are encouraging heavier weights of hogs. According to the Livestock Situation, June, 1941, the average weight of barrows and gilts at seven important markets was running 7 pounds heavier than a year earlier and the average weight of packing sows was 27 pounds heavier.

Sheep numbers are expected to increase 8 percent and production of mutton and wool are expected to show a somewhat greater increase. The greatest percentage increases are expected in the Great Plains portions of Texas and Oklahoma and the least in Kansas. It would be desirable to make further increases in Colorado.

Milk cows are expected to increase 6 percent and milk production about 7 percent. An increase of 13 percent in milk production, with an increase of about 8 percent in cow numbers seems desirable. However, the prices assumed for other livestock enterprises appear to be more attractive to farmers than dairying. This is particularly true for hogs in northeastern Kansas and for feeder cattle and sheep in the irrigated areas of eastern Colorado.

It is anticipated that numbers of chickens will increase 19 percent, with corresponding increases in eggs and chickens raised. This increase is as large as is considered desirable. The greatest increase will be in Kansas and may be sufficient to tax the capacity of hatcheries in some localities.

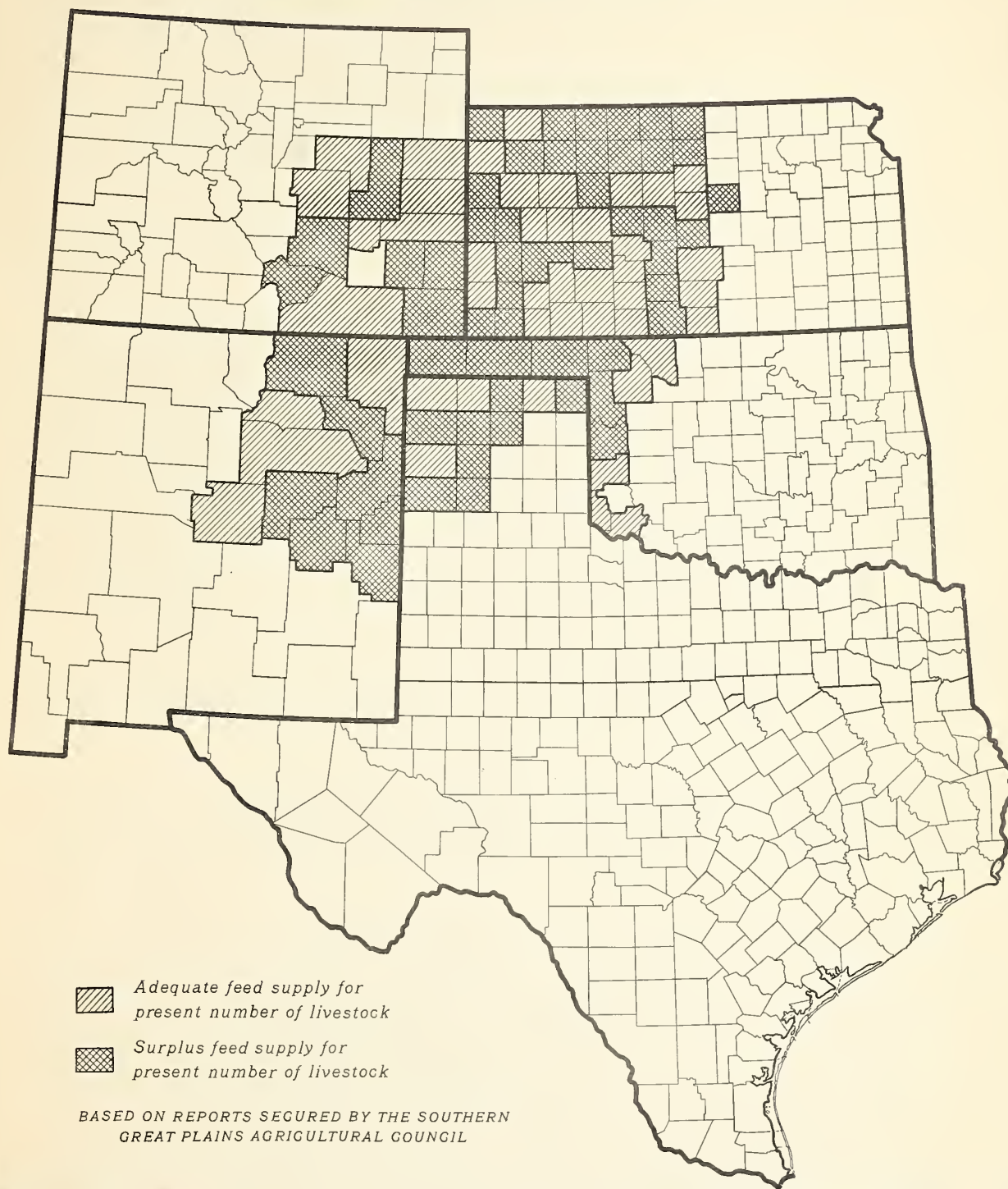
Table 1. Present expected and desirable land use and livestock production in the Southern Great Plains

	1939 Census 1/	1940 Est. 2/	1943-45 Exp. 2/	Long-Run Des. 2/	% change from 1940	
					1943-45 Exp.	Long- Run Des.
	(000)	(000)	(000)	(000)	Pct.	Pct.
No. of farms	297	--	294	290	-1.0	-2.4
Land in farms, ac.	167,056	--	167,056	167,056	0.0	0.0
Cropland, ac.	50,710	--	49,925	46,579	-1.5	-8.1
Wheat, ac.	15,786	21,226	19,140	18,151	-9.8	-14.5
Rye, har., ac.	212	369	227	225	-38.5	-39.0
Corn, ac.	3,867	4,543	5,874	5,075	+29.3	+11.7
Oats, ac.	1,494	2,144	2,264	2,119	+5.6	+1.2
Barley, ac.	1,320	2,183	3,072	2,963	+40.7	+35.7
Flax, ac.	95.5	157	171	171	+8.9	+8.9
Beans, ac.	462	606	609	473	+5	-21.9
Soybeans, har., ac.	11	24	30	24	+25.0	0.0
Hay, har., ac.	2,995	3,614	3,686	4,175	+2.0	+15.5
Sorghums, ac.	4,947	7,999	8,186	7,909	+2.3	-1.1
Grain sorghums, ac.	--	4,965	4,761	4,682	-4.1	-5.7
Potatoes, ac.	100	124	136	118	+9.7	-4.8
Sweet Potatoes, ac.	6	5	5	5	0.0	0.0
Cotton, ac.	487	538	502	460	-6.7	-14.5
Com'l. veg., har., ac.	60	73	81	83	+11.0	+13.7
Cattle & calves, no.	6,208	7,441	7,877	7,762	+5.9	+4.3
Mkt. & farm slaughter, lb.	--	2,345,853	2,695,926	2,613,225	+14.9	+11.4
Hogs & pigs, no.	1,297	2,411	2,957	2,896	+22.6	+20.1
Mkt. & farm slaughter, lb.	--	715,143	938,277	879,359	+31.2	+23.0
Sheep & lambs	4,895	7,097	7,660	7,052	+7.9	-.6
Net prod., lv. wt., lb.	239,171	253,755	283,456	281,128	+11.7	+10.8
Wool, lbs.	33,538	44,493	48,574	44,931	+9.2	+1.0
Milk cows, no.	1,157	1,332	1,413	1,443	+6.1	+8.3
Milk, lbs.	4,562,328	5,387,476	5,780,021	6,088,444	+7.3	+13.0
Chickens, no.	19,778	25,879	30,846	29,428	+19.2	+13.7
Meat, lbs.	--	186,753	221,050	210,884	+13.4	+12.9
Eggs, doz.	135,016	197,414	236,753	234,852	+19.9	+19.0

1/ Figures in this column are from the 1939 census. Crop acreages are those harvested. Only a few items of livestock production are reported by the census.

2/ Figures in these columns have been developed on the basis of A.M.S. estimates. Crop acreages are those planted except where indicated as harvested.

FEED CONDITIONS IN SELECTED COUNTIES OF THE SOUTHERN GREAT PLAINS AS OF OCT. 1, 1941



With the exception of milk there do not appear to be any serious problems of getting short-run desirable levels of production in the Southern Great Plains. There will be adjustment problems in some sub-areas. Some of the main ones are as follows:

(1) In areas in which large increases in corn acreage are indicated there is danger of excessive erosion. The expansion should be directed so that it is not made on land that is highly susceptible of erosion, and the maintenance of conservation measures should be strongly encouraged.

(2) Prices of dairy animals may rise excessively and restrict expansion. It may be desirable to encourage a greater production of dairy animals.

(3) In most areas there will be a serious problem of getting increased livestock and poultry production on the farms that would benefit most from the standpoint of organization. The facilities of the FCA and FSA should be used to encourage the establishment of these enterprises on farms that would be benefited by so doing. Table 2 indicates the need for a more widespread distribution of certain enterprises. Beef cattle and sheep are kept on a rather small proportion of the farms in all areas. A larger proportion of the farmers in the wheat area grow sorghums than in any other area, but only about one-fourth of them grow hay and corn, and only one-fifth grow oats and barley. The proportion growing feed crops in the wheat-range transition area is low for nearly all feed crops.

Special arrangements might be made with landlords to permit financing the construction of livestock and poultry housing and other facilities on tenant farms similar to plans now in use by the Water Facilities program on tenant farms, and by the FSA on Unit Reorganization farms.

(4) It will be necessary that feed reserves be accumulated and maintained in high-risk areas to guarantee that these areas will be able to support the numbers of livestock anticipated. This will involve more extensive use of the grain-sorghum loan and greater encouragement for the building of trench silos.

(5) In range areas, particularly those in which there is little public land and the rate of stocking is not carefully regulated, there will probably be a tendency to increase generally beef and sheep numbers. Such a tendency would endanger both the beef-marketing goal and the range. The building up of herds would reduce the number of livestock marketed for 1 or 2 years because a greater proportion of heifer calves would be retained in the herd. Moreover, most of the range areas normally do not produce enough feed to support a greater livestock population. Approximately two-thirds of the feed required by cattle and sheep is used for maintenance and the remainder for growth and fattening. Therefore, with a limited feed supply, increases in numbers must be accompanied by lower weights per animal and a lower production of meat per pound of feed. Furthermore, a reduction in the feed available per animal would be accompanied by smaller calf and lamb crops and greater death losses.

DESIRABILITY OF THE ADJUSTMENTS IN THE LONG-RUN

For the region as a whole, the adjustments in production which are expected during the war emergency period are in line with long-run desirable objectives. There will be some decrease in wheat acreage and greater emphasis on livestock and feed production. It does not appear that the plowing up of grassland and the establishment of small cash crop farms which accompanied World War I will be repeated. However, the total acreage of cropland will be held at a level above that which is desirable in the long-run. Some contraction in corn acreage and of hog numbers will be needed in some areas. The number of cattle and sheep will be somewhat overexpanded in the range areas and in need of further increases in the high-risk cash grain areas.

Most of the complex problem of revegetation in the Dust Bowl will remain to be solved since it is probable that revegetation efforts, except in extremely critical areas, will be retarded in the interests of greater short-run feed production. In the long-run, the acreage to be taken out of cropland, including some of the acreage expected to be in feed crops in the short-run, will be restored to grass. The AAA program encourages the re-seeding of some acreages to grass every year. It would be desirable to encourage more extensive seedings in years of favorable moisture.

Table 2. Percentage of farmers reporting different items in 1940 by major adjustment areas, Southern Great Plains, 1940 ^{1/}

	Area				
	:Southern :Great Plain	Corn Area	Range Area	Wheat area	Wheat range area
Number of farms	297,900	67,700	87,347	113,330	29,523
	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>
Cows & heifers for beef	23.7	17.2	24.2	27.5	21.9
Cows & heifers milked	77.9	84.5	68.5	82.3	73.4
Hogs and pigs	50.4	62.2	46.3	47.1	47.8
Sheep and lambs	10.8	11.6	13.9	8.8	7.7
Chickens	83.7	89.5	77.6	85.1	83.4
Corn	44.8	74.9	47.6	26.3	38.4
Sorghums	46.4	55.9	28.8	57.6	32.8
Oats, threshed	25.3	50.1	20.7	18.9	6.8
Barley, threshed	17.1	12.4	12.6	21.0	26.4
Rye, threshed	2.8	2.3	2.0	3.9	2.2
All hay	40.2	51.7	50.6	25.9	37.6
Alfalfa hay	22.8	25.1	33.3	11.6	29.0

^{1/} Source: United States Census, 1940.

Table 3. Goals for 1942 and present, expected, and desirable land use and livestock production in Colorado 1/

	1940 Estimate (000)	1942 Goal (000)	1943-45 Expected (000)	Long-Run Desirable (000)
No. of farms	51		50	49
Land in farms, ac.	31,526		31,526	31,526
Cropland, ac.	8,014		7,814	6,511
Wheat, ac.	1,524	1,303	1,472	1,125
Rye, har. ac.	100	46	38	36
Corn, ac.	1,043	1,022	1,166	1,002
Oats, ac.	180	190	191	197
Barley, ac.	580	638	642	636
Beans, ac.	391	332	391	294
Hay, harv. ac.	1,376	1,404	1,534	1,577
Sorghums, all, ac.	974	--	1,214	1,386
Grain sorghums, ac.	593	450	755	858
Potatoes, ac.	86	87	98	79
Com'l veg. harv. ac.	64	64	70	72
All cattle, no.	1,447	--	1,520	1,498
Mkt. & farm slaughter, lb.	496,980	609,924	599,518	601,433
Hogs and pigs, no.	403	--	403	455
Mkt. & farm slaughter, lb.	101,210	95,985	115,534	127,903
Sheep and lambs, no.	2,677	--	2,688	2,553
Net prod., lbs.	111,717	121,000	125,201	127,343
Wool, lbs.	14,170	--	14,404	14,180
Milk cows, no.	232	238	245	253
Milk, lbs.	1,080,157	1,183,000	1,146,017	1,193,903
Chickens, no.	3,991	--	4,203	4,233
Meat, lbs.	8,816	--	28,681	28,873
Eggs, doz.	30,833	32,266	34,366	35,378

1/ Figures have been developed on the basis of A.M.S. estimates. Crop acreages are those planted except where indicated as harvested. Nineteen forty number of farms, land in farms and cropland are from the 1939 Census.

Table 4. Goals for 1942 and present, expected, and desirable land use and livestock production in Kansas 1/

	1940 Estimate (000)	1942 Goal (000)	1943-45 Expected (000)	Long-Run Desirable (000)
No. of farms	156		156	155
Land in farms, ac.	48,173		48,173	48,173
Cropland, ac.	28,032		28,032	26,074
Wheat, ac.	12,531	11,372	11,364	10,508
Rye, harvested, ac.	147	60	62	62
Corn, ac.	3,051	3,029	4,244	3,624
Oats, ac.	1,630	1,933	1,677	1,563
Barley, ac.	1,308	1,400	2,090	1,978
Flax, ac.	157	146	171	171
Soybeans, har., ac.	24	27	30	24
Hay, har., ac.	1,660	1,714	1,522	1,951
Sorghums, all, ac.	4,451	--	3,973	3,437
Grain sorghums	2,554	1,800	1,806	1,635
Potatoes, ac.	27	27	28	28
Sweet potatoes, ac.	3	3	3	3
Cotton, ac.	--	1	1	1
All cattle, no.	2,928	--	3,152	3,165
Production, lbs.	--	--	1,106,695	1,067,642
Mkt. & farm slaughter, lb	1,027,354	1,212,291	1,168,969	1,127,719
Hogs and pigs, no.	1,519	--	2,006	1,887
Production	--	--	1,289,867	1,157,610
Mkt. & farm slaughter, lb	483,750	532,350	670,316	601,586
Sheep and lambs, no.	690	--	737	744
Production	38,690	43,000	41,100	42,002
Wool, lbs.	4,053	--	4,325	4,365
Milk cows, no.	750	820	791	816
Milk, lbs.	3,030,000	3,400,000	3,251,247	3,463,073
Chickens, no.	16,321	--	20,215	18,699
Meat, lbs.	23,462	--	145,958	135,012
Eggs, doz.	126,667	147,967	156,570	151,025

1/ Figures have been developed on the basis of A.M.S. estimates. Crop acreages are those planted except where indicated as harvested. 1940 number of farms, land in farms and cropland are from the 1939 Census. Statistics for commercial vegetables were not adequate to permit an estimate on a state basis.

Table 5. Goals for 1942 and present, expected, and desirable land use and livestock production in New Mexico ^{1/}

	1940 Estimate (000)	1942 Goal (000)	1943-45 Expected (000)	Long-Run Desirable (000)
No. of farms	34		34	33
Land in farms, ac.	38,860		38,860	38,860
Cropland, ac.	2,198		2,198	1,979
Wheat, ac.	368	316	330	306
Rye, harvested, ac.	--	4	4	4
Corn, ac.	199	210	211	196
Oats, ac.	30	35	32	29
Barley, ac.	13	14	14	16
Beans, ac.	215	204	218	179
Hay, harvested, ac.	170	178	183	186
Sorghums, all, ac.	474	--	551	574
Grain sorghums, ac.	412	385	479	506
Potatoes, ac.	6	6	6	7
Cotton, ac.	108	101	113	105
All cattle, no.	1,276	--	1,331	1,267
Mkt. & farm slaughter, lb	341,250	405,418	385,327	379,775
Hogs and pigs, no.	110	--	128	111
Mkt. & farm slaughter, lb	22,400	22,550	27,299	23,773
Sheep and lambs, no.	2,433	--	2,662	2,463
Production, lbs.	67,169	67,000	73,123	73,047
Wool, lbs.	15,944	--	17,324	16,117
Milk cows, no.	75	77	89	85
Milk, lbs.	278,000	305,000	332,595	330,444
Chickens, no.	1,097	--	1,195	1,216
Meat, lbs.	7,921	--	8,627	8,882
Eggs, doz.	8,333	8,828	8,723	9,449

^{1/} Figures have been developed on the basis of A.M.S. estimates. Crop acreages are those planted except where indicated as harvested. Statistics for commercial vegetables were not adequate to permit an estimate on a state basis. 1940 number of farms, land in farms, and cropland are from the 1939 Census.

Table 6. Present, expected, and desirable land use and livestock production in the Great Plains portions of Oklahoma 1/

	1940 Estimate (000)	1943-45 Expected (000)	Long-Run Desirable (000)
No. of farms	38	37	36
Land in farms, ac.	13,979	13,979	13,979
Cropland, ac.	6,524	6,432	6,353
Wheat, ac.	3,541	2,944	3,232
Rye, harvested, ac.	112	112	112
Corn, ac.	185	187	187
Oats, ac.	270	330	296
Barley, ac.	190	233	232
Hay, harvested, ac.	283	315	324
Sorghums, all, ac.	996	1,237	1,294
Grain sorghums, ac.	672	835	873
Potatoes, ac.	4	4	3
Sweet potatoes, ac.	2	2	2
Cotton, ac.	131	119	84
All cattle, no.	789	831	845
Mkt. & farm slaughter, lbs.	232,985	263,882	253,329
Hogs & pigs, no.	238	257	284
Mkt. & farm production	71,681	81,435	85,486
Sheep and lambs, no.	154	182	179
Production, lbs.	6,625	7,944	7,815
Wool, lbs.	1,198	1,411	1,390
Milk cows, no.	193	200	201
Milk, lbs.	673,291	698,003	732,563
Chickens, no.	3,249	3,893	3,925
Meat, lbs.	117,842	28,107	28,336
Eggs, doz.	23,358	28,065	29,452

1/ Figures have been developed on the basis of A.M.S. estimates. Crop acreages are those planted except where indicated as harvested. 1940 number of farms, land in farms and cropland are from the 1939 Census. Statistics for commercial vegetables were not adequate to permit an estimate for this area.

Table 7. Present, expected, and desirable land use and livestock production in the Great Plains portions of Texas ^{1/}

	1940 Estimate (000)	1943-45 Expected (000)	Long-Run Desirable (000)
No. of farms	18	17	17
Land in farms, ac.	34,518	34,518	34,518
Cropland, ac.	5,942	5,449	5,662
Wheat, ac.	3,262	3,030	2,980
Rye, harvested, ac.	10	11	11
Corn, ac.	65	66	66
Oats, ac.	34	34	34
Barley, ac.	92	93	101
Hay, harvested, ac.	125	132	137
Sorghums, all, ac.	1,104	1,211	1,218
Grain sorghums, ac.	734	806	810
Potatoes, ac.	1	--	1
Cotton, ac.	299	269	270
All cattle, no.	1,001	1,043	987
Mkt. & farm slaughter, lb	247,284	278,230	250,969
Hogs and pigs, no.	141	163	159
Mkt. & farm slaughter	36,102	43,693	40,611
Sheep and lambs, no.	1,143	1,391	1,113
Production, lbs.	29,554	36,088	30,921
Wool, lbs.	9,128	11,110	8,879
Milk cows, no.	82	88	88
Milk, lbs.	326,028	352,159	368,461
Chickens, no.	1,221	1,340	1,355
Meat, lbs.	28,712	9,677	9,781
Eggs, doz.	8,223	9,029	9,548

^{1/} Figures have been developed on the basis of A.M.D. estimates. Crop acreages are those planted except where indicated as harvested. 1940 number of farms, land in farms and cropland are from the 1939 Census. Statistics for commercial vegetables were not adequate to permit an estimate for this area.

ADJUSTMENTS FOR THE CORN AREA

Alternative Adjustments

Defense needs will make it desirable to increase hog production in this area to a considerable extent. Part of this increase can be obtained through the marketing of hogs at heavier weights, but it will also be necessary to increase hog numbers. To accomplish this corn acreage will have to be maintained at about the allotment level and production of other feed crops must be increased.

It will also be desirable to increase the production of dairy products, poultry and eggs to some extent. The increase in dairy production that is wanted for 1942 will have to be accomplished through better feeding of milk cows and from milking lower-producing cows not previously used for milk production. For later years, part of the increase can be obtained through increased cow numbers and through improvement in dairy herds.

It is expected that the wheat acreage in this area will be reduced sharply in 1942 and that it will approximate the allotment. This will release a considerable acreage for the production of feed crops. During the next few years it will be desirable to devote this acreage to such crops as corn and sorghums, but in the long run, a considerable part of it should be used for pasture and legume hay. This will mean that it will be desirable in the long run to reduce hog numbers somewhat below the level that will prevail during the period of the defense program. It should be possible to maintain numbers of beef and dairy cattle near the short-run level.

It does not appear that the desired increases in livestock production will involve the general establishment of livestock enterprises on farms where they did not previously exist, with the possible exception of hogs.

Adjustment problems

Pork production can be increased more rapidly than any other kind of meat, with the exception of poultry. A 2-percent reduction in slaughter this year would be sufficient to permit an increase of 15 percent in the number of brood sows, which in turn would result in an increase of about 15 percent in pork production the year following. It is estimated that the pig crop in this area in the spring of 1941 was somewhat smaller than in the preceding spring, but the fall pig crop of 1941 was considerably above that for the previous year. The production of pork for 1942 can be expected to be well above that for 1941.

Increasing the number of dairy cows to meet an immediate demand for increased production of dairy products would obviously be impossible. Improvement in the quality of dairy animals likewise requires a number of years. However, an expansion of dairy production can be made through better

feeding and management of dairy herds, and from milking a larger number of lower-producing cows already on farms.

Farm buildings and equipment in this area are, in general, adequate to permit the adjustments suggested. A number of farms are operated under tenancy arrangements which will make it difficult to secure an increase in livestock production on those particular farms.

There is need for the increased use of lime and phosphate in southeastern Kansas to promote the establishment of legumes.

The increased acreage of feed crops wanted for the defense period may create serious erosion problems on some farms. This problem can be met if conservation plans are followed on all farms.

Farmers in this area will probably be confronted with labor shortages which will adversely affect the expansion of the more intensive enterprises such as dairy and poultry production.

Table 8. Present, expected, and desirable land use and livestock production in the corn area of the Southern Great Plains

	1939 Census ^{1/}	1940 Est. ^{2/}	1943-45 Exp. ^{2/}	Long-Run Des. ^{2/}	Pct.ch.from 1940 1943-45	Long- Run Des.
	(000)	(000)	(000)	(000)	Exp.	Des.
No. of farms	68		68	68		
Land in farms, ac.	12,144		12,144	12,144		
Cropland, ac.	6,973		6,973	6,335		
Wheat, ac.	1,814	2,466	1,584	1,442	-35.8	-41.5
Rye, har., ac.	16	37	16	16	0.0	0.0
Corn, ac.	1,737	1,935	2,222	1,921	+14.8	-0.7
Oats, ac.	704	1,027	1,027	942	0.0	-8.3
Barley, ac.	144	314	342	318	+8.9	+1.3
Flaxseed, ac.	90	148	162	162	+9.4	+9.4
Soybeans, har., ac.	10	21	26	21	+24.0	0.0
Hay, har., ac.	623	885	707	962	-20.1	+8.7
Sorghums, all, ac.	583	1,078	864	694	-19.9	-35.6
Grain sorghums, ac.	--	618	382	306	-38.2	-50.5
Potatoes, ac.	17	20	20	20	0.0	0.0
Sweet potatoes, ac.	2	1	1	1	0.0	0.0
Broomcorn, ac.	1	1	1	1	0.0	0.0
Cotton, ac.	1	--	1	1		
Com'l veg. har., ac.	3	5	6	6	+20.0	+20.0
Cattle and calves, no.	828	967	1,025	1,023	+6.0	+5.8
Mkt. & farm slaughter, lb	--	346,467	387,144	377,582	+11.7	+9.0
Hogs & pigs, no.	441	854	1,116	1,034	+30.7	+21.1
Mkt. & farm slaughter, lb		272,254	372,894	329,769	+20.4	+21.1
Sheep and lambs, no.	191	241	255	267	+5.8	+10.8
Prod., lv. wt., lbs.	11,058	13,447	14,215	14,912	+5.7	+10.9
Wool, lbs.	1,140	1,419	1,529	1,602	-15.1	-10.9
Milk cows, no.	286	329	339	349	+3.0	+3.0
Milk, lbs.	1,102,079	1,352,392	1,425,677	1,510,235	+5.4	+8.4
Chickens, no.	5,616	7,336	9,460	8,477	+29.0	+15.6
Slaughter, lv. wt., lbs.	--	52,972	68,305	61,207	+28.9	+15.5
Eggs, doz.	36,363	54,352	70,025	65,463	+28.9	+20.5

^{1/} Figures in this column are from the 1939 Census. Crop acreages are those harvested. Only a few items of livestock production are reported by the Census.

^{2/} Figures in these columns have been developed on the basis of A.M.S. estimates. Crop acreages are those planted, except where otherwise indicated.

ADJUSTMENTS FOR THE RANGE AREA

Alternative Adjustments

In the range areas, desirable adjustments are more easily defined. Increased marketings of beef is desired, but it should not be accompanied by a general increase in cattle numbers. In fact, an increase in numbers would, in all probability, defeat the purpose of the adjustment; first, because the increase in numbers would cause a decrease in marketings for about 2 years, second, because the increased production would arrive too late to benefit the 1942 defense program, and third, because the increase in numbers would not be accompanied by an increase in the feed supply, more of the available feed would be used for maintenance and the end result might well be a decrease in the production of meat and an accompanying reduction in ranchers' incomes.

From 3 to 5 years are required generally to increase marketings by increasing cattle numbers. There is a decrease in marketings during the years when more than the usual number of heifers are being retained for the breeding herd. If the heifers calve as two-year olds and their offsprings are marketed as feeder calves, another two years elapse before marketings increase; if they calve as three-year olds and their offspring are marketed as long-yearlings, marketings do not increase for another four years. Meanwhile, larger feed supplies are required to carry the additional stock.

Questions regarding increases in livestock numbers in range areas should be approached in the light of certain well established principles. 1/

(1) The feed resources of the range area are highly variable from year to year because of weather conditions, but ranchers can do very little about adjusting the feed supply in any one year. Since adjustments in the feed supply to meet livestock needs are limited, it is necessary to adjust livestock numbers to the feed supply.

(2) About 65 percent of the feed consumed by animals on full range feed is used for body maintenance. This maintenance requirement must be met before much feed can be used to produce calves, milk, or gains in weight. Therefore, if the range were stocked to a point where animals were able to obtain only 65 percent of full range feed, nearly all of the feed supply would be used for maintenance.

(3) A good index to proper stocking of the range is normal production and normal growth. For cattle, with proper stocking, cow weights should approximate 1,000 pounds, the calf crop should average about 90 percent and calves should weigh at least 400 pounds at 6-1/2 to 7 months of age.

1/ This discussion is based primarily on New Mexico Press Bulletins 825 and 910.

(4) From a given supply of feed, the maximum pounds of beef or mutton will be produced if the range is stocked to permit normal production and normal growth.

Present livestock weights, rates of growth, and calf and lamb crops in the range area indicate that, with the exception of a few individual ranches which remain understocked, it would not be desirable, at present, to increase livestock numbers further. For the last 2 years, cattle and sheep numbers have been increasing in all the Southern Great Plains States except New Mexico, and this increase, with the abundant range feed available in 1941, should be sufficient to produce a considerable increase in beef and mutton marketings in 1942 and subsequent years. Probably the increased marketing from this source will not be sufficient to reach the desired levels, but the remainder can be secured through a closer culling of herds and better management.

On sheep ranches, light-shearing, off-type, and broken-mouthed ewes should be culled. With wool prices at present levels, considerable attention should be paid to the fleeces of replacement ewes. The average age of ewe bands should be kept down. On cattle ranches, old, dry fat cows should be sold closely. To accomplish this, a system of orderly marketing should be developed by individual ranchers. With truck transportation available, small lots of cattle can be marketed at central markets or local killing plants, thereby permitting absorption into the trade with the least likelihood of overdoing the market on this class of cattle. Special attention should be paid to off-type cows and those that produce calves of below-average type and quality, and they should be marketed when they carry sufficient flesh for the killer trade.

This culling policy will permit an immediate increase in the supply of meat and will also help to prepare the individual rancher's business for a period of lower prices by creating herds of a good age distribution to grow through a period of low prices.

A further increase in beef production can be obtained by an increased use of grain or protein concentrates for wintering young cattle, particularly for those being developed for the feeder trade.

Adjustment Problems

Although the undesirability of a further increase in livestock numbers is generally accepted by ranchers in the area, there may be an appreciable number who will increase their herds, particularly in areas in which the rate of stocking is not governed by policies on public lands. Ranch operators who have little or no cropland should keep in mind that they can best create feed reserves through maintenance of the proper rate of stocking.

There is considerable need for improved livestock-management practices on the smaller farms and ranches. Educational efforts should be supplemented by the judicious extension of credit to finance needed improvements and the purchase of better bulls.

Perhaps in some localities less attention should be paid to the production of grass-fat cattle and more to the production of feeders for the best utilization of the feed resources.

The following of a wise credit policy will be one of the most difficult problems that will accompany production adjustments in this area. The retirement of indebtedness during the present period of high prices for livestock will be sound practice where the ranch business has acquired proper balance, but each case must be considered on its own merits.

Table 9. Present, expected and desirable land use and livestock production in the Range Area of the Southern Great Plains.

	1939 Census	1940 Estimate	1943-45 Expected	Long-Run Desirable	Pct.ch. from 1940	
	1/ 2/	2/ 2/	2/ 2/	2/ 2/	Exp.	Des.
	(000)	(000)	(000)	(000)		
No. of farms	87		86	85	0.0	-2.3
Land in farms, ac.	73,154		73,154	73,154	0.0	0.0
Cropland, ac.	6,957		6,957	6,586	0.0	-5.4
Wheat, ac.	1,432	1,893	1,451	1,240	-23.4	-34.5
Rye, harvested, ac.	37	53	42	42	-8.7	-8.7
Corn, ac.	736	839	893	841	+6.4	+0.2
Oats, ac.	310	449	463	449	+3.1	0.0
Barley, ac.	207	274	287	301	+4.7	+9.8
Flaxseed, ac.	5	8	8	8	0.0	0.0
Beans, ac.	264	325	327	267	+0.6	-17.8
Soybeans, har., ac.	.5	2	2	2	0.0	0.0
Hay, harvested, ac.	1,434	1,611	1,620	1,760	+0.6	+9.2
Sorghums, all, ac.	788	1,230	1,179	1,136	-4.2	-7.6
Grain sorghums, ac.	--	777	694	683	-10.7	-12.1
Sugar beets, ac.	28	30	30	30	0.0	0.0
Potatoes, ac.	56	71	80	65	+12.7	-8.5
Sweet potatoes, ac.	2	2	2	2	0.0	0.0
Broomcorn, ac.	8	8	8	8	0.0	0.0
Cotton, ac.	298	330	300	270	-9.1	-18.2
Com'l. veg., har., ac. 3/	30	33	37	37	+10.3	+10.3
Cattle & calves, no.	2,438	3,014	3,133	2,951	+3.9	+0.1
Mkt. & farm slaughter, lb	--	900,562	1,040,465	999,301	+12.8	+8.3
Hogs & pigs, no.	329	605	694	654	+14.7	+9.8
Mkt. & farm slaughter, lb	--	169,925	203,772	189,041	+19.9	+11.2
Sheep & lambs, no.	3,472	5,107	5,680	4,988	+11.2	+6.2
Production, lv. wt., lb	158,538	166,134	184,919	177,966	+11.6	+7.4
Wool, lbs.	25,111	33,837	37,706	32,993	+11.4	+6.0
Milk cows, no.	259	300	309	315	+3.0	+4.0
Milk, lbs.	1,064,605	1,241,982	1,287,810	1,346,201	+3.7	+7.4
Chickens, no.	4,152	5,412	6,266	6,066	+15.8	+12.1
Slaughter, lv. wt., lbs.	--	39,076	45,242	43,799	+15.8	+12.1
Eggs, doz.	28,339	41,355	47,704	47,776	+16.0	+16.2

1/ Figures in this column are from the 1939 Census. Crop acreages are those harvested. Only a few items of livestock production are reported by the Census.

2/ Figures in these columns have been developed on the basis of A.M.S. estimates. Crop acreages are those planted except where indicated as harvested.

3/ No estimate of com'l. veg. acreage was made for the Great Plains portions of Texas and Oklahoma.

ADJUSTMENTS FOR THE WHEAT-RANGE TRANSITION AREA

Adjustment Alternatives

No other area in the Great Plains Region presents adjustment problems of equal complexity with the dry-farming part of this high-risk area.

Adjustments in the irrigated sections are relatively easy to prescribe and are rather easily attainable. In the main, they involve increased feeding of cattle, increased numbers of hogs, some increase in numbers of dairy cattle, and a considerable increase in feeding of milk cows. Farms are, in general, already well equipped to handle these enterprises and the farmers are skilled in their management. There will be some difficulties in getting these enterprises established on farms where they are needed and credit agencies will have a problem in judiciously financing feeding operations.

In the dry-farming areas, the adjustments that seem to be desirable are well known and the needs of defense and of a sound farm economy are almost identical, but the difficulties of putting the adjustments into effect are very great.

The principal adjustment needed in this area is the establishment of a stable livestock system that would be well integrated with the crop economy of the area. This would involve some reduction from past levels in wheat acreage, an increase in feed production, and the restoration of considerable acreages to grass. This will require considerable increases in hogs, dairy cows, and poultry, and some increase in beef cattle. A much wider distribution of livestock among farms, particularly in the smaller size groups, is needed.

Obstacles to Adjustment

Early in the drought era the need for the reestablishment of a livestock economy here was recognized by public officials and farmers alike, yet it remains far from achievement. The reasons are obvious: drought conditions have limited the production of feed and have retarded the restoration of cropland to grass; small crop farms can develop profitable livestock enterprises only in exceptionally favorable situations; tenant farms are a high proportion of the total and are rented under conditions that make it difficult to keep livestock; buildings, fences, and water systems are not available on many farms to permit the handling of livestock.

It is estimated that the bumper feed crop of 1941 has produced a little surplus feed over and above the 2-year reserve supply that should be kept on hand for the livestock already in the area. Therefore, for the first time in many years it would appear that livestock enterprises could be safely expanded here. However, the prices of beef cows, feeders, and dairy cattle are at high levels and caution will be necessary to avoid financial distress later.

The following suggested approaches to the problem may be helpful in developing the livestock economy in a safe and systematic way. It should be borne in mind that a general approach will not apply in this area, and that the production program for each farm will have to be considered on its own merits.

(1) The unit-reorganization program of the F.S.A. and co-operating agencies should be greatly expanded. This program offers an opportunity to build up the resource base of small farms to a point where they can follow a livestock program. It facilitates the long-time leasing of land and enables a farmer to obtain an adequate water system, buildings, and other facilities for his livestock. Through the unit-reorganization program, the farmer can finance his livestock on favorable terms.

(2) For both large and small farms, the maximum quantity of feed should be grown and stored, preferably in trench silos. Adequate reserves should be the aim of all farmers. Those whose livestock enterprise is not large enough to utilize all the feed produced, and who do not care to develop a livestock-feeding enterprise, can well afford to store surplus feed to be sold during years of feed shortages or used at a time when feeding livestock for the market is especially attractive.

(3) Increases in hogs and dairy cattle should be encouraged on farms that would be benefited by the addition or enlargement of such enterprises.

(4) The establishment of a new beef herd at present should be very carefully considered; it will be desirable only in a limited number of cases where the farm organization will be greatly benefited. These will involve the establishment of small herds. Advantage should be taken of opportunities to reduce risk. Some farmers may be able to buy aged cows that can be sold after they have calved. This makes it possible for a farmer to liquidate his investment quickly, yet gives him a nucleus from which he can build a small herd. There should be similar opportunities for sheep.

(5) Feeder enterprises offer a change for a short-time investment of capital, but entail considerable risk. Many farmers will find it more desirable to feed on a contract basis which reduces the risks that come from price fluctuations.

Table 10. Present, expected, and desirable land use and livestock production in the Wheat-range Transitional Area of the Southern Great Plains

	1939 Census <u>1/</u> (000)	1940 Estimate <u>2/</u> (000)	1943-45 Expected <u>2/</u> (000)	Long-Run Desirable <u>2/</u> (000)	Pct. change from 1940 Exp. Des.	
No. of farms	29		28	27	-3.4	-6.9
Land in farms, ac.	28,826		28,826	28,826	0.0	0.0
Cropland, ac.	7,634		7,367	5,892	-3.7	-23.0
Wheat, ac.	927	1,320	1,744	1,252	+32.1	-5.2
Rye, harvested, ac.	21	49	21	18	-56.2	-62.5
Corn, ac.	430	611	700	622	+14.6	+1.8
Oats, ac.	32	52	53	48	+1.9	-7.7
Barley, ac.	245	361	434	411	+20.2	+13.8
Beans, ac.	186	267	267	190	+0.4	-29.6
Hay, harvested, ac.	389	416	488	502	+17.3	+20.7
Sorghums, all, ac.	757	1,317	1,412	1,490	+7.2	+13.1
Grain sorghums, ac.	--	817	844	896	+3.3	+9.7
Sugar beets, ac.	94	103	113	113	+11.9	+11.9
Potatoes, ac.	20	24	28	25	+16.7	+4.2
Broomcorn, ac.	57	61	72	61	+18.0	+1.6
Com'l. veg., har., ac.	27	32	34	36	+6.2	+12.5
Cattle & calves, no.	725	932	976	1,010	+4.7	+8.4
Mkt. & farm slaughter, lbs	--	304,978	345,339	350,331	+13.2	+14.9
Hogs & pigs, no.	114	212	192	190	-9.4	-10.4
Mkt. & farm slaughter, lbs	--	53,750	63,159	60,912	+17.5	+13.3
Sheep & lambs, no.	678	1,065	957	1,024	-10.2	-3.8
Production, lv. wt., lbs.	43,456	44,376	50,961	54,819	+14.8	+23.5
Wool, lbs.	3,558	4,717	4,280	5,253	+7.4	+11.4
Milk cows, no.	116	140	147	154	+5.0	+9.3
Milk, lbs.	499,238	614,776	647,974	688,121	+5.4	+11.7
Chickens, no.	1,738	2,393	2,437	2,492	+1.8	+4.1
Slaughter, lv. wt., lbs.	--	17,277	15,936	16,399	-7.8	-5.1
Eggs, doz.	11,353	17,706	19,766	20,680	+12.2	+17.4

1/ Figures in this column are from the 1939 Census. Crop acreages are those harvested. Only a few items of livestock production are reported by the Census.

2/ Figures in these columns have been developed on the basis of A.M.S. estimates. Crop acreages are those planted except where indicated as harvested.

3/ No estimate of com'l. vegetable acreage was made for the Great Plains portions of Texas and Oklahoma.

ADJUSTMENTS FOR THE WHEAT AREA

Alternative Adjustments

To meet the needs of the defense program it will be desirable for this area to increase the production of beef, pork, dairy products, poultry, and feed crops, and to make some reduction in wheat acreage.

These increases in the production of livestock and livestock products can be accomplished in different ways. Should the increase in beef production be brought about through heavier feeding and better care, or through increased numbers? Should an attempt be made to establish beef enterprises on a greater proportion of the farms at the present time? If so, should these be feeder enterprises or cow herds? Similar questions can be raised with respect to sheep, hogs, and dairy cattle.

Because livestock numbers are now at a relatively high level and because an increase in beef marketings is wanted in 1942, it appears to be desirable to increase production primarily by means of heavier feeding. This would permit more complete utilization of available wheat pastures and would furnish an outlet for an increased acreage of corn and sorghums. In country adjacent to ranches, farmers who have proper facilities should be able to contract with ranchers for the wintering of livestock, and dispose of their feed and small grains in that way. In this area, only a limited amount of the cattle feeding should consist of fattening on full-grain feed. Most of it should represent the wintering of cattle on wheat and rye pastures and roughage, with a limited ration of supplemental feed. In most cases, these should be older classes of stock because they can utilize roughage to better advantage than calves.

Over a longer period it will probably be desirable for more farmers in the area to have a beef herd as a permanent livestock enterprise in connection with wheat farming.

Increases in hog and dairy production are desirable and will offer a better opportunity for farmers to enter the livestock business than will beef cattle. This is particularly true in the case of hogs because a herd can be built up quickly and returns can be realized within a short period.

It is highly desirable to increase feed production in the wheat area, and in the western part of it, particularly.

Fortunately, adjustments that will permit the wheat area to make the maximum contribution to the defense program will also promote the long-time stability of its own economy.

Adjustment problems

One of the most common difficulties that will be met in a program of expansion of livestock enterprises or the establishment of new enter-

prises here will be the lack of suitable facilities for the proper care and handling of livestock. The Water Facilities program may be advantageously expanded in many localities and credit agencies should consider extension of credit even to the extent of increasing present indebtedness on some farms to permit practical improvements for livestock production.

The tenure arrangements under which farms are rented in this area will prove a considerable handicap in the establishment of livestock enterprises on many farms. Under the share-rent system, landlords frequently insist that the greatest possible acreage be devoted to cash crops. The turn-over of tenants is great, and landlords are reluctant to equip their farms for the handling of livestock.

Table 11. Present, expected, and desirable land use and livestock production in the Wheat Area of the Southern Great Plains

	1939 Census 1/ (000)	1940 Estimate 2/ (000)	1943-45 Expected 2/ (000)	Long-Run Desirable 2/ (000)	Pct. change from 1940 Exp. Des.	
No. of farms	113		112	110	-1.8	-3.5
Land in farms, ac.	52,932		52,932	52,932	0.0	0.0
Cropland, ac.	29,146		28,628	27,766	-2.8	-4.7
Wheat, ac.	11,613	15,547	14,361	14,217	-7.6	-8.6
Rye, harvested, ac.	138	230	148	149	-16.3	-16.3
Corn, ac.	964	1,158	2,059	1,691	+77.8	+46.0
Oats, ac.	448	616	721	680	+17.0	+10.4
Barley, ac.	724	1,234	2,009	1,933	+62.8	+56.6
Flaxseed, ac.	.5	1	1	1	0.0	0.0
Beans, ac.	12	14	15	16	+7.1	+14.3
Soybeans, har., ac.	.5	1	2	1	+100.0	0.0
Hay, har., ac.	549	702	871	951	+24.1	+35.5
Sorghums, all, ac.	2,819	4,374	4,731	4,589	+8.2	+4.9
Grain sorghums, ac.	--	2,753	2,841	2,797	+3.2	+1.6
Sugar beets, ac.	24	20	20	20	0.0	0.0
Potatoes, ac.	7	9	8	8	-11.1	-11.1
Sweet potatoes, ac.	2	2	2	2	0.0	0.0
Broomcorn, ac.	62	62	60	57	-3.2	-9.1
Cotton, ac.	188	208	201	189	-3.4	-9.1
Com'l. veg., har. ac. 3/	--	3	4	4	0.0	0.0
Cattle & calves, no.	2,217	2,528	2,743	2,778	+8.5	+9.9
Mkt. & farm slaughter, lbs	--	793,846	922,978	886,011	+16.3	+11.6
Hogs & pigs, no.	413	740	955	1,008	+29.0	+36.2
Mkt. & farm slaughter, lbs	--	219,214	298,452	299,637	+36.1	+36.7
Sheep & lambs, no.	554	684	768	773	+12.3	+13.0
Net prod., lv. wt., lbs.	26,119	29,798	33,361	33,431	+12.0	+12.2
Wool, lbs.	3,729	4,520	5,059	5,078	+11.9	+12.3
Milk cows, no.	496	563	618	625	+9.8	+9.2
Milk, lbs.	1,896,406	2,178,326	2,418,560	2,543,887	+11.1	+14.8
Chickens, no.	8,272	10,738	12,683	12,393	+18.1	+15.4
Slaughter, lv. wt., lbs.	--	77,428	91,567	89,479	+18.3	+15.6
Eggs, doz.	58,961	84,001	99,258	100,933	+18.4	+20.4

1/ Figures in this column are from the 1939 Census. Crop acreages are those harvested. Only a few items of livestock production are reported by the Census.

2/ Figures in these columns have been developed on the basis of A.M.S. estimates. Crop acreages are those planted except where indicated as harvested.

3/ No estimate of com'l. vegetables acreage was made for the Great Plains portions of Texas and Oklahoma.

APPENDIX

Assumptions Used in Determining Adjustments and Prices

(A) During the war emergency period (represented by the period 1943-45)

- (1) Continuation of the war, and of the defense program in the United States; or, if the war ends, maintenance of industrial activity at a high level because of active participation by the United States in world rehabilitation and an expanded public works program.
- (2) Full utilization of available non-farm labor.
- (3) Increases in national income payments to individuals which will be somewhat in excess of increases in taxation.
- (4) Continuation of agricultural programs. For 1943-45 expected adjustments, no important changes in marketing quotas, allotments, or payments from those already announced are considered. Long-term desirable adjustments in some cases are contingent upon modifications of the agricultural program.
- (5) Government-sponsored encouragement to increase the production of meats, dairy products, and eggs. This will include price support through governmental purchases of these commodities, release of feed supplies from the Ever-Normal Granary, and direction of the production effort toward the production of those products which are considered vital to the defense effort.
- (6) Rising costs of production of farm products, including higher wages for farm labor, and increased machinery, fuel, and feed costs.
- (7) Higher costs for purchased items of family living.
- (8) Some reduction in the number of farmers, principally in areas near cities.

(B) In the long-run

- (1) Continued limited export market for wheat and cotton.
- (2) Continued increase in mechanization, especially in wheat and cotton areas.
- (3) Public programs to facilitate the retirement of cropland in high-risk areas and to prevent excessive resettlement of these areas.
- (4) Continuation of public policies to encourage family-sized farms

and to keep about the present number of people on the land.

- (5) Some increase in the number of farms in the more productive portions of the high plains, in which the recent out-migration has been greater than would be justified by normal growing conditions.
- (6) Continuation of Government conservation and price-supporting programs, but with sufficient flexibility in programs to permit and encourage broad adjustments in land use and crop production.

Table 12. Prices received by farmers in Colorado, Kansas, New Mexico, Oklahoma and Texas, average 1935-39 1/

Product	Unit	Colorado	Kansas	New Mexico	Oklahoma	Texas
		\$	\$	\$	\$	\$
Wheat	bu.	.79	.83	.81	.80	.81
Rye	bu.	.63	.59	-	.66	.68
Corn	bu.	.71	.63	.78	.63	.59
Oats	bu.	.37	.34	.46	.33	.34
Barley	bu.	.48	.49	.56	.51	.49
*Rice	bu.	-	-	-	-	.76
Flaxseed	bu.	-	1.52	-	<u>2/</u> 1.50	<u>2/</u> 1.65
*Beans(dry edible)	cwt.	3.54	<u>3/</u> 3.62	3.75	-	-
Soybeans	bu.	-	1.14	-	1.66	1.77
Seed alfalfa	bu.	11.08	10.88	9.54	8.80	9.08
*Hay, all classes	ton	7.48	6.98	9.80	7.56	8.12
*Alfalfa	ton	8.20	10.80	10.22	12.00	13.16
*Sugar beets	ton	5.02	-	-	-	-
*Peanuts	lb.	-	-	-	.04	.03
Potatoes	bu.	.65	.65	.92	.71	1.16
Sweet potatoes	bu.	-	.95	-	.96	.86
*Apples	bu.	.75	1.23	1.03	<u>5/</u> 1.02	<u>4/</u> 1.15
*Peaches	bu.	.80	1.30	1.26	1.17	1.03
*Oranges	box	-	-	-	-	1.07
*Grapefruit	box	-	-	-	-	.54
Cotton	lb.	-	-	.10	.09	.10
Cottonseed	ton	-	-	26.20	23.39	24.63
Hogs	cwt.	8.26	8.24	8.14	7.80	7.83
Beef cattle	cwt.	7.67	7.83	6.52	6.38	6.09
Veal calves	cwt.	8.83	8.43	7.72	7.66	7.15
Sheep	cwt.	4.07	5.32	3.45	4.46	4.68
Lambs	cwt.	8.58	8.37	6.93	8.35	6.72
Wool	lb.	.23	.20	.21	.20	.25
Chickens	lb.	.14	.12	.14	.12	.13
Eggs	doz.	.20	.17	.20	.17	.18
Butterfat	lb.	.26	.26	.27	.25	.25
Milk(wholesale)	cwt.	1.59	1.89	2.38	1.67	2.16

* Crop year averages.

1/ Computations based on calendar year averages except where marked by asterisk, in which case crop year averages were used.

2/ Only 1939 included.

3/ Only 1935 and 1936 included.

4/ Only 1935, 1936 and 1937 included.

5/ Only 1935, 1936, 1937 and 1938 included.

Table 13. Assumed prices to be received by farmers in Colorado, Kansas, New Mexico, Oklahoma and Texas for the period 1943-45 ^{1/}

Product	Unit	Colorado	Kansas	New Mexico	Oklahoma	Texas
		\$	\$	\$	\$	\$
Wheat ^{2/}	bu.	1.06	1.11	1.09	1.08	1.09
Rye	bu.	.75	.84	-	.93	.96
Corn	bu.	.96	.85	1.05	.85	.80
Oats	bu.	.58	.53	.72	.51	.53
Barley	bu.	.60	.61	.70	.64	.61
Rice	bu.	-	-	-	-	.94
Flaxseed	bu.	-	1.71	-	1.69	1.86
Beans(dry edible)	cwt.	3.81	3.92	4.03	-	-
Soybeans	bu.	-	1.83	-	2.48	2.61
Seed alfalfa ^{3/}	bu.	-	-	-	-	-
Hay, all classes	ton	8.55	7.98	11.21	8.64	9.31
Alfalfa	ton	9.03	11.86	11.24	13.23	14.49
Sugar beets	ton	5.70	-	-	-	-
Peanuts	lb.	-	-	-	.05	.05
Potatoes	bu.	.80	.80	1.14	.87	1.42
Sweet potatoes	bu.	-	1.28	-	1.29	1.16
Apples	bu.	.91	1.50	1.25	1.24	1.40
Peaches	bu.	.91	1.48	1.43	1.33	1.17
Oranges	box	-	-	-	-	1.50
Grapefruit	box	-	-	-	-	.48
Cotton ^{2/}	lb.	-	-	.16	.14	.15
Cottonseed	ton	-	-	41.32	57.36	39.01
Hogs	cwt.	12.00	12.00	11.76	11.28	10.92
Beef cattle	cwt.	11.66	11.88	9.90	9.68	9.24
Veal calves	cwt.	14.42	13.72	12.60	12.46	11.62
Sheep	cwt.	7.14	9.31	6.02	7.84	8.19
Lambs	cwt.	13.91	13.65	11.31	13.52	10.92
Wool	lb.	.43	.37	.40	.37	.47
Chickens	lb.	.25	.22	.25	.22	.22
Eggs	doz.	.32	.28	.32	.28	.30
Butterfat	lb.	.36	.36	.37	.34	.34
Milk(wholesale)	cwt.	2.18	2.60	3.26	2.28	2.96

^{1/} The average State prices in this table have been computed by applying the ratio between the average 1935-39 United States farm prices and the respective 1935-39 state farm prices to the prospective 1943-45 United States farm prices.

^{2/} The price of cotton and wheat even more than others in this table are based on special assumptions with respect to acreage and loan programs. They are not forecasts of what prices will be.

^{3/} Price paid by farmers.

Table 14. Indexes of prices paid by farmers in the United States
(1910-14 = 100)

	1935-39	1939	1940	Assumed 1943-45
	\$	\$	\$	\$
Farm machinery	154	157	153	183
Building material <u>1/</u>	149	148	150	172
Fertilizer	100	100	98	110
Wage-rates to hired labor	118	124	126	175
Prices paid by farmers	124	121	122	141

1/ For other than house.

Table 15. Average wage rates per month, with board, by states and for
the United States

State	1935-39	Assumed 1943-45
	\$	\$
United States	26.01	38.60
Colorado	28.50	42.46
Kansas	23.52	34.74
New Mexico	26.13	38.60
Oklahoma	19.78	29.34
Texas	20.25	30.11