YEARBOOK OF AGRICULTURE

1937

YEARBOOK
OF AGRICULTURE

UNITED STATES DEPARTMENT OF AGRICULTURE

Contents

LIMITATIONS *of space made it necessary to omit from this volume some of the material prepared as a result of the survey of plant and animal improvement. Two complete articles were omitted—one on the Improvement of Subtropical Fruits Other than Citrus, by Hamilton P. Traub and T. Ralph Robinson and one on the chromosomal basis of heredity (Studies in the Behavior of Chromosomes) by A. F. Blakeslee, consulting member of the Secretary's Committee on Genetics. Both of these articles, however, will be published in the 1937 Yearbook Separates, obtainable from the Superintendent of Documents, Washington, D. C., at a nominal cost. In order to keep the record complete and unified, the summaries of the articles have been retained in the introductory chapter beginning on page 119. The remaining omitted material consists of the bibliographies on flower breeding and on forest-tree breeding, which include a large number of references, and which will also be published with the text of the articles in the Yearbook Separates; and a few pages of miscellaneous agricultural statistics. The latter are included in substance in the volume entitled Agricultural Statistics, 1937, obtainable from the Superintendent of Documents. A notice of the fact that Agricultural Statistics would hereafter be published as a separate volume appeared in the foreword to the 1936 Yearbook.*

THE YEAR IN AGRICULTURE

REPORT OF THE SECRETARY OF AGRICULTURE TO THE PRESIDENT OF THE UNITED STATES, WASHINGTON, NOVEMBER 10, 1936

PROGRESS OF FARM RECOVERY

FOUR years ago American agriculture was in the depths of depression. Though farm commodity prices had dropped to nearly 50 percent below the pre-war average, the prices of the goods and services that farmers usually buy were at or above the pre-war level. This disparity was a cause of widespread agricultural ruin. Farm bankruptcies were at record heights, dispossessed farmers joined the urban unemployed, and farmers still struggling could not make ends meet. There was a tremendous surplus of farm products; yet consumers were suffering scarcity. Falling farm prices did not help them much, because their incomes were falling too as a result of declining trade and employment. The whole economic system was out of balance.

Since then conditions have changed for the better. The improvement has come about in the manner envisioned in 1933—through agricultural-price recovery with resulting increased demand for city goods. Net farm income this year will be three times that in 1933. All groups of farmers and all agricultural regions have participated in the recovery, though not to the same degree. There is still distress in some regions, as a result of drought in 1934 and again this year. On the whole, however, agriculture is out of the red and making progress toward financial rehabilitation.

This improvement has not been accomplished at the expense of other economic groups. On the contrary, it has promoted their welfare. Consumer buying power has risen with farm incomes, and the average employed wage earner can buy more food today than he could at the peak of urban prosperity in 1929. Food prices are still 15 to 20 percent below the predepression level. In spite of two great droughts in 3 years the total food supply for the current marketing season will be within 1 or 2 percent of what it was in 1935–36. Meat production is below normal requirements; but the output of some other products has increased, and exports are relatively low. Hence the national average per-capita consumption of foods has shown little change. Industrial production is 80 percent above the low point of 1932. In short, the economic system has moved toward balance, with larger incomes in both town and country, and with profits replacing deficits in both farm and city balance sheets.

Farm recovery began in 1933 promptly after the adoption of a national farm-readjustment program, accompanied by revaluation of the dollar. As the farm income rose, farmers started clearing off their debts and taxes. They recommenced buying industrial goods. Recovery went on at a faster pace in 1934, 1935, and 1936, despite the handicap of drought. Between 1932 and the end of 1934 shipments of industrial goods to agricultural areas increased nearly 43 percent, and shipment of goods used in farm production increased 75 percent. New-car registrations in agricultural States in the first half of 1935 were 147 percent larger than in the first half of 1933. Farmers were not monopolizing the benefits of farm recovery but were diffusing it throughout the country and putting life blood into business. What nonfarmers had contributed in processing taxes and benefit payments they got back with interest. Reciprocally the revival of urban trade benefited agriculture, and the whole economic picture brightened.

The Production-Control Programs

In the early stages of the farm recovery, the production of farm commodities had to be restricted so as to reduce the surpluses that were not moving into foreign markets. When drought in 1934 and again this year reduced production too drastically, some people questioned the logic of crop adjustment. Scarcity, however, was never intended and never approached. This country's farm productivity is so tremendous that recovery from drought comes quickly. Full use of the available acreage normally means surpluses. Agriculture produced as usual in the first years of the depression, while urban industry reduced its output by nearly 50 percent.

In bringing their production more nearly in line with demand, farmers were simply copying the behavior of other groups when faced with overproduction and declining markets; with the important difference, however, that only export surpluses came within the farm-reduction program. As soon as the demand improved, farmers increased their acreage and livestock breeding. Though drought in 1934 and 1936 kept the production from rising proportionately, it will rise eventually. Both the farmers and the present National Government aim at adequate production for domestic requirements, plus whatever additional supply can be sold profitably abroad.

Undoubtedly, most Americans want to maintain our agriculture on a proprietary, landowning, family basis. Certainly this Administration does. It is not desirable to have either a peasant agriculture manned by tenants and laborers, or a collective agriculture run by the central Government. This idea involves certain responsibilities. Farmers must be permitted to earn a profit, a margin of income over expenditures; otherwise the family farm becomes bankrupt, and either tenancy or Government farming supervenes.

But if agriculture is to be profitable, it must have prices sufficient on an average and in the long run to exceed its fixed charges and expenses of production; and this is impossible when supplies greatly exceed the effective demand. Those who object to the rational adjustment of the farm output to the farm demand practically take the position that farmers should produce, without regard for the reward obtainable, as long as anyone needs their crops. Needless to

say, production on that basis cannot continue in any business. Profitable farming, in short, means farming adjusted to the available market. If want continues after that has been accomplished, the remedy is to create more buying power, rather than to compel farmers to produce indefinitely at a loss.

Comparison With Industrial Production

Farmers cannot be charged with having promoted scarcity when they readjusted their production for export more nearly in line with the available market. Index numbers of production and prices have been computed in this Department, with the 5 years 1925 to 1929 taken as 100. Farm production was 100 in 1930 and 106 in 1931, from which point it declined moderately to 90 in 1934 and 1935. Industrial production fell year by year after 1929 until it reached a low point of 56 in 1932. Thereafter it recovered gradually until in 1935 the index stood at 82, as compared with the farm production index of 90. It should be borne in mind that the industrial index includes the output of food manufacturers, an item which, of course, reflects farm production. Were this item excluded from the industrial index, the contrast between farm and factory production would be still more striking. Farm production remained high and farm prices relatively low until farm adjustment got under way. Industrial production and prices showed the reverse relationship.

Moreover, the farm situation in 1933 was such that reduced production would have come about eventually in any case, with or without Federal assistance. That is the typical end-product of low prices. Usually, reduced production results from drastic competition and the elimination of the weaker producers. Concerted action after 1933 enabled the vast majority to survive. But this procedure did not reduce production more than it would have been reduced eventually by the other process, and it prevented deterioration of the agricultural plant through farm abandonment.

Looking back over the last 4 years, we can see that despite the droughts we have advanced toward balanced abundance. Four years ago our factories were producing below and our farms above consumer requirements, with both branches of production losing heavily. Today we have a forward movement in both town and country. Farm recovery has reanimated urban life without hurting any group. The disparity between urban and rural production has been substantially removed; likewise the disparity between farm and nonfarm prices. That the results have been beneficial everyone can testify from his own experience. Our higher national income, our increased employment, and the increase that has taken place in the money value of both agricultural and industrial assets show that recovery has been general.

FARM INCOME AND BUYING POWER

This Department makes available two series of farm-income statistics. One series records current receipts from sales plus A. A. A. payments, and the other shows the estimated gross income from the production. Farmers' receipts from sales plus A. A. A. payments in 1936 will probably reach $7,850,000,000, or about 11 percent more than

the corresponding receipts in 1935. This figure is 81 percent more than the cash farm income of 1932 and only 25 percent less than that of 1929. Table 1 shows the decline that took place from 1929 to 1932 and the subsequent steady recovery:

TABLE I.—*Changes in income from 1929 to 1936–37*

Calendar year	Cash income from marketings	Crop year	Gross income[1]
1929	$10,479,000,000	1929–30	$11,941,000,000
1930	8,451,000,000	1930–31	9,454,000,000
1931	5,899,000,000	1931–32	6,968,000,000
1932	4,328,000,000	1932–33	5,337,000,000
1933	5,117,000,000	1933–34	6,406,000,000
1934	6,387,000,000	1934–35	7,276,000,000
1935	7,090,000,000	1935–36	8,508,000,000
1936[2]	7,850,000,000	1936–37	9,200,000,000

[1] Includes cash returns from calendar-year marketings of livestock, and from crop-year marketings of crops plus the farm value of production retained for use in the farm home. A. A. A benefit payments included in gross-income estimates as well as in the annual cash income service.
[2] Preliminary.

It will not be possible to indicate in detail the gross income from the farm production in 1936 until well along in 1937, when the marketings will be more nearly completed. It probably will approach $9,200,000,000, as compared with $8,508,000,000 from the production of 1935. It represents a total advance of about $3,900,000,000 or 72 percent, from the low point of 1932, but it is about $3,000,000,000, or 23 percent, below the figure for 1929. Gross income in that year was 17 percent higher than in 1934–35 and 59 percent higher than in 1932–33. It was 71 percent of the 1929–30 total.

Net income remaining to farmers increased after 1933 proportionately more than the gross income because farm-commodity prices rose more than production expenses and other charges. After paying current production expenses, allowing for the depreciation of buildings and equipment and deducting rent, interest, taxes, and the wages of hired labor, the income available to farm operators for their labor, capital, and management from the production of 1935 was $4,538,000,000. This may be compared with $3,467,000,000 in 1934 and $1,492,000,000 in 1932. Whereas the increase in the gross income from 1934 to 1935 was only 17 percent, the increase in the income available to farm operators was 31 percent. It will be noticed that it was more than three times as large as in 1932. Moreover, much of the expenditures for production items in 1935 went for machinery, buildings, and repairs, which are in the nature of permanent improvements. Farmers' expenditures for capital items in 1935 approximately equaled the estimated depreciation of their buildings and equipment, for the first time since 1930.

EXCHANGE VALUE OF FARM PRODUCTS

Another index of the farm position is the ratio between prices received and prices paid by farmers. Farm commodity prices have risen more since 1933 than the prices of nonfarm goods and services. Previously the trend had been in the opposite direction. In March

1933, with agricultural prices only 55 percent of the pre-war average, nonagricultural prices were still at 100 percent of the pre-war level. Farm products in 1935 averaged 108 percent of pre-war prices, while nonagricultural prices had risen to 125 percent. Farm prices had gained on nonfarm prices, but had not attained pre-war parity. This ratio indicates the exchange value of farm commodities or their unit purchasing power. The index of farm-commodity purchasing power was 55 percent of pre-war in March 1933, 73 percent for the year 1934, and 86 percent for the year 1935. By August 1936 it had climbed to 98 percent.

The purchasing power of farm commodities is not identical with the purchasing power of the farmer. It indicates what a given quantity of farm products will buy, but not what the total volume will command. A closer estimate of the farmer's purchasing power can be derived from the ratio between the cash farm income and the prices that farmers have to pay for goods and services. With prices paid by farmers in 1936 equal to 80 percent of what they paid in 1929, the 1936 cash income of $7,850,000,000 is equivalent to $9,800,000,000 in terms of 1929 nonfarm prices. Otherwise stated, the purchasing power of the cash farm income in 1936 will be only 7 percent less than that of 1929. As compared with the purchasing power of the cash farm income in 1932 it represents an increase of 60 percent. Moreover, agricultural debt charges, taxes, and wage costs were lower in 1936. Allowance made for this additional factor would give an agricultural purchasing power still closer to that of 1929.

Certain aspects of the distribution of the farm income should be noticed. Cash income from meat animals in 1935 exceeded the corresponding figure for 1932 by 73 percent, and in the first 7 months of 1936 it advanced 27 percent over the total for the corresponding period of 1935. From dairy products in 1935 the cash income was 30 percent more than in 1932; the income from poultry and eggs was 45 percent more. These industries made small additional gains in the first 7 months of 1936. From grains the cash income in 1935 was 61 percent more than in 1932 and from cotton 46 percent more. Fruits and vegetables recorded a 41-percent gain. Income from marketings of all crops was 36 percent greater in the first 7 months of 1936 than in the corresponding period of 1935. These percentages do not include the A. A. A. payments.

With marketings and benefit payments included, the total cash income from grains in 1935 was 133 percent larger than in 1932. From cotton it was 77 percent larger. In the first 7 months of 1936 the total cash income from marketings with A. A. A. payments included was 17 percent more than in the corresponding period of 1935 though the A. A. A. payments were considerably smaller.

Regional Percentages Vary

Regional percentages of gain in 1935 over 1932 range from 33 percent in the North Atlantic States to 81 percent in the South Atlantic States. Mainly the regional differences reflect the different price behavior of various commodities, but the aftermath of the 1934 drought was a factor also. Proportionately less gain for the dairy regions than for other regions was a natural consequence of the

fact that the dairy regions had suffered less in the early years of the depression; but for the opposite reason the grain-growing areas show a relatively large increase, though reduced marketings have tended to offset the price gains.

Each of the principal agricultural regions, except the South Central States, showed an increase in income in the first 7 months of 1936, as compared with the corresponding period in 1935. In the South Central States, where smaller Government payments offset an increased return from marketings, the income was approximately the same. The gains in the other regions ranged from 14 percent in the North Atlantic, South Atlantic, and Western States to 23 percent in the West North Central States.

Accurately to measure the respective influences of the factors responsible for the recovery in farm incomes is difficult if not impossible. Mainly the improvement reflects price gains, supported by increased consumer buying power. Factors in the price gain include the revaluation of the dollar, the A. A. A. adjustment programs, the reduced production caused by the 1934 drought, and the liquidation of surpluses. In 1936 increased marketings were a factor in the income gain. Farm prices in the first 7 months of the year averaged slightly lower than in the corresponding months of 1935. In the later months, however, farm prices advanced as a result of the drought, and for the full year the farm-price average will probably exceed that of 1935.

In estimating the prospects for the longer future the most basic factor is the level of consumer incomes. Broadly, the income of agriculture varies more closely with the national income than with the level of farm prices. It is encouraging to note that the money income of the nonfarm population in August 1936 averaged 13 percent more than in August 1935 and 32 percent more than in the corresponding period of 1933. With their improved income, consumers were able to buy 7 percent more food and 12 percent more of the other items in their budget than in the previous year, but 6 and 11 percent, respectively, less of these items than in 1929. Earnings per employed worker have more than kept pace with food prices. Needless to say, farmers as a result of their income gains can deal more effectively with the consequences of the 1936 drought than they could with those of the drought of 1934.

Farm Prices and the Consumer

Effects of the drought on the cost of living will probably be similar to those produced by the drought of 1934. From crop data available in September it was estimated that for the 1936–37 season food supplies in general will be about 3 percent below the 1935–36 level, about 1 percent below the level of 1934–35, and about 5 percent below the 1925–29 average. Certain vegetables, particularly potatoes, will be in short supply. The output of fruits and vegetables and of dairy products will be lower, and after the turn of the year the supply of meats will be reduced. This will result in higher meat prices to some extent offset by seasonal declines in other food prices. In the comparable situation after the 1934 drought, retail food prices as a whole in the first half of 1935 averaged about 11 percent higher than they

did during the first half of 1934. Food constitutes only about one-third of total living costs, hence an increase of, say, 10 percent in the cost of food tends to produce a rise in total living costs of only about 3 percent.

Analysis of the trend in nonfarm income indicates that consumers' incomes in the first half of 1937 will increase at least as much as the cost of living. In other words, the purchasing power of consumers generally, in terms of goods and services, will not decline. Had there been no drought, it would have increased; and the foregoing remarks do not signify that consumers can regard with indifference the great change produced by the drought in the supply situation. But the main effect will be temporarily to arrest a gain rather than to cause a drop in the real income of consumers. Wage earners actually employed could buy with their wages more of the necessities of life in the summer of 1936 than they could in 1929 because retail prices were lower on the average. In terms of foods the purchasing power of employed workers actually advanced after 1929, when farm prices began falling. It remained above the 1929 level and reached a new high point in 1936.

In total purchasing power the position of city workers deteriorated during the first years of the depression. Pay rolls declined, while many nonfood items in the family budget remained unchanged. In 1934, 1935, and 1936, however, nonfarm labor incomes increased. These incomes for the first half of 1936 aggregated $23,492,000,000, as compared with $19,617,000,000 in the first half of 1933. More men were engaged in manufacturing in the summer of 1936 than at any previous time in the last 5 years; in July industrial production was 108 percent of the 1923–25 average, the highest point reached since November 1929. According to the seasonally adjusted index of the Federal Reserve Board, the July industrial production was 83 percent above the low point to which it fell in March 1933. The relatively small rise in the cost of living which will be the inevitable consequence of the drought will be substantially offset by recovery in urban buying power.

OUR NATIONAL AGRICULTURAL POLICY

It is commonly believed that the United States never had a truly national agricultural policy until after the World War; but the country has always had a national agricultural policy. In the period of westward migration, of rapid land settlement, and of ruthless exploitation of natural resources, the policy was negative. It was mainly one of noninterference with the private appropriation of land for use or misuse. Despite its laissez-faire character, we cannot call that procedure a mere lack of policy. It expressed a definite philosophy and, indeed, a definite program. It was what the dominant forces in the country wanted and what the majority of the people at least tacitly accepted. Our national agricultural policy in the nineteenth century reflected the belief that national welfare could best be promoted through individualism and unrestricted competition.

For a long time this theory apparently stood the test of practice. With abundant land, an open frontier, and a relatively sparse population, the quickest way to increase production, and therefore wealth,

was to get the resources into private hands. Occasionally production overshot the market; but the resulting depression did not last long and did not shake the country's faith in the exploitation program. Various administrations encouraged farming, ranching, lumbering, and other land uses through homestead laws, grazing privileges, land grants, favors to transportation companies, lenient taxation, and irrigation. Few looked forward to the closing of the frontier and to the ruthless competition that would ensue. Most people seemed to think the policy that had been adopted could be continued indefinitely.

As a matter of fact, as most people now perceive, the exploitation policy created problems that today necessitate a conservation policy. Recklessness in one age inevitably imposes prudence on the next. There are sharp contrasts between the agricultural views and programs that dominated the nineteenth century and those that shape our agricultural policy today. But the contrast does not mean that the present has broken with the past or that tradition has been sharply wrenched from its natural path. On the contrary, it signifies that cause and effect have operated normally. The new agricultural policy is the direct result of the old one and of the conditions and problems which the old policy created. As the occupation of the continent proceeded, the expansion program ran out of material. It ran out of land and forced the land hungry into submarginal farming, destructive grazing practices, and forest devastation. Land charges accumulated on the older-settled land and drove producers into overproduction. Exploitation, in short, created the need for conservation, and simultaneously excessive competition generated a need for corrective regulation. It is because our forbears went too far in one direction that we must now move in another.

No Break With Evolutionary Trend

In the transition from the old to the new agricultural philosophy there is no sudden break with the evolutionary trend, and no capricious improvisation of new doctrine. On the contrary, the link between the old exploitation and the new conservation, and between the old unregulated competition and the new principle of cooperative adjustment, is direct and close. Perhaps the authors of the exploitation program, were they here today, would disown their offspring; but the parentage can be demonstrated. After the spendthrift has wasted his money he must begin to save; after a country has squandered its natural resources it must learn to husband what remains. Our national agricultural policy since the World War has been criticized as confused and uncoordinated, but study of it will reveal a logical and indeed predestined course.

Thus the Federal Farm Board came into existence to handle surpluses left by wartime and post-war expansion. The McNary-Haugen plan, though twice vetoed, stamped its mark on subsequent legislation as a first approach to the problem of the export surplus. The A. A. A. programs were an emergency effort to substitute concerted for haphazard crop adjustments in a catastrophically falling market and to bring agriculture abreast of urban industry in the regulation of production. The new Soil Conservation and Domestic Allotment Act, though weaker in crop-adjustment power than the measure it replaced,

had the great merit of launching a positive attack on the dual problem of soil destruction and unbalanced cropping. In varying degrees all these approaches to the agricultural problem betokened a national recognition of the fact that modern problems cannot be solved by ancient formulas, and that agricultural policy today is necessarily in large measure the opposite of what it was in the period of the open frontier.

Agricultural policy draws its inspiration, not from the accidents of politics but from fundamental economic changes. In the shaping of American agricultural policy we can distinguish two great controlling forces, each of recent origin. First, of course, is the disappearance of the open frontier and the resulting pressure of population on the resources available with its threat of soil wastage and soil destruction. Second is the world-wide growth of economic regulation, not only in trade but in production. Governments are assuming greater and greater responsibilities for the regulation of commerce both domestic and foreign, and industry is becoming cartelized throughout the world. Into an economic system of that kind, a purely competitive, wholly unregulated agriculture will no longer fit. These two great forces seem destined to exert an increasing influence which will express itself in legislation and policy no matter what political party may be in power. Modern agricultural policy in the United States is not the arbitrary invention of an economic group with a special interest to promote but is a national response to an altered economic world. It is not merely an attempt to deal with temporary evils but a profound readjustment to permanently changed conditions.

Landmarks in Agricultural Policy

It is interesting to recall the contribution of the past to present agricultural policy. In 1862 Congress passed the Morrell Act, providing Federal grants of land to the States for the establishment of colleges in agriculture and the mechanic arts. After half a century of progress in agricultural technology, agriculture began to demand economic guidance. Accordingly, this Department developed extensive and varied economic services in which research was combined with the regular gathering of crop and market data, and with numerous related services such as commodity grading and standardization, and shipping- and receiving-point inspection. In 1921 these and other activities were concentrated in the Bureau of Agricultural Economics. In 1922 Congress passed the Capper-Volstead Act, giving legal recognition to the right of farmers to organize cooperative associations for the marketing of their products. In 1927 and again in 1928 Congress passed the McNary-Haugen legislation, though each time the legislation encountered a Presidential veto. Then came the Agricultural Marketing Act of 1929 and the creation of the Federal Farm Board. In 1933 the Agricultural Adjustment Act, with its provisions for processing taxes and cooperative crop adjustments, went into effect and remained in effect until the United States Supreme Court invalidated it in January last, through decisions in the Hoosac Mills and rice millers' cases. Throughout the entire period covered by this brief review American farmers manifested an in-

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creasing tendency to effect organization and also to look to the Federal Government for aid in solving their economic problems.

Because of the adjustments made under the Agricultural Adjustment Act during the last 3 years and because the drought helped to liquidate certain of the surpluses, the present program under the Soil Conservation and Domestic Allotment Act is well fitted to present needs. Farmers recognize that, while this agricultural conservation program will be of immediate help in stabilizing supplies through the encouragement of more extensive uses of land, the program itself is not a direct production-control measure. A return to normal weather conditions would revive the problem of agricultural surpluses. I am inclined to believe that farmers understand what confronts them in the future and that they will look forward to making use of the method of meeting the problem of surpluses which the Supreme Court left open to them. The Soil Conservation and Domestic Allotment Act contains a provision which will facilitate this step in 1938 should farmers decide to meet their supply problem through cooperation of the States. This provision is, of course, the direct descendant of the invalidated Agricultural Adjustment Act, and preserves some of the ideas contained in that measure, as well as some of the principles developed in the application of the A. A. A. programs. It would be well, therefore, before examining methods and results under the new law, to glance back at the legacy bequeathed by the A. A. A.

Agricultural Adjustment Act Effective

It is evident, from the improvement that took place in the position of agriculture between 1932 and 1935, that the Agricultural Adjustment Act forwarded its main purpose. This was to eliminate the crushing surpluses that had piled up previously and to raise farm incomes immediately through various measures calculated to support prices. From 1932 to 1935, the period during which A. A. A. programs were in effect for cotton, wheat, tobacco, corn, and hogs, the combined farm cash income from these commodities increased 90 percent. Cash income from these five major commodities increased from $1,365,000,000 in 1932 to $2,593,000,000 in 1935. From all other farm products the cash income increased from $3,012,000,000 in 1932 to $4,307,000,000 in 1935. In 1932 the largest farm population in the Nation's history had the smallest farm cash income reported in the 26 years for which records are available. The turning point came with the adoption of the Agricultural Adjustment Act, though this measure was only one of the factors responsible for the agricultural improvement. Dollar revaluation, business recovery, credit relief extended through the Federal Farm Credit Administration, and other influences contributed. All these influences combined gave farmers in 1935 a cash income available for living larger than in any year since 1929. They had to pay somewhat more for goods and services in 1935 than they did in 1932, but with allowance made for that, the purchasing power of the farm cash income in 1935 was still 35 percent larger than it had been in 1932.

The great drought of 1934, which cut our production of feedstuffs in half, necessitated modifications in the A. A. A. program so as to

encourage production of emergency feed crops that year and to provide for certain increases in production the next. It became advisable also to work toward a better coordination of the various commodity programs and to provide for greater regional and area differences so as to promote good farm management and good land use. Certain shortcomings had developed in the emergency application of the programs, notably a tendency to fix or freeze production in the historic mold, without proper regard for the changing requirements of different areas. But the crop-adjustment programs had shown themselves to be useful in promoting soil conservation and good farming. They fostered some shift from soil-depleting cash crops, such as cotton and wheat and corn, to soil-building crops such as grasses and legumes.

To strengthen and develop this favorable tendency, the A. A. A., working with the State experiment stations and with other branches of this Department, launched studies in regional planning and modified its crop-adjustment contracts with farmers. It began to place less emphasis on flat percentage changes in production and more on differential adjustments to the requirements of local as well as of national conditions. In this way the A. A. A. developed principles which found continued application when the invalidation of processing tax and production control provisions of the Agricultural Adjustment Act led Congress to pass the Soil Conservation and Domestic Allotment Act. Under the A. A. A. the primary objective was production control, with soil conservation a secondary though increasingly important object. Under the new law soil conservation becomes the primary aim, with some crop adjustments coming as a byproduct. Probably in a period of good crops and high yields the degree of crop control attainable under the new measure will not be adequate, but for the time being it works for a better crop balance. The emphasis it puts on grass and legumes has the double advantage of making our agricultural system less intensive, while at the same time conserving soil wealth.

Methods Under New Law

Under the Soil Conservation and Domestic Allotment Act the Federal Government in 1936 made grants to farmers cooperating in soil-conserving and soil-building programs. It did not make use of contracts. Cooperating farmers simply planned their operations in line with definite soil-conservation standards, worked out with producers, soil specialists, and State agricultural leaders. They obtained their grants after officials had checked the performance with the standards. For this purpose Congress made $470,000,000 available for the year, the goal for which was to have 130,000,000 acres in soil-conserving crops as compared with 100,000,000 acres in 1930. Though the program for the year was national in scope, the country was divided for administrative purposes into five regions—the northeastern, the east central, the southern, the western, and the north central—and the practices for which payments were made and conditions which had to be met were varied so as to meet the particular needs of the farmers in each region.

After January 1, 1938, the program will enter upon a State-aid phase; in other words, the Federal Government thereafter will make soil-conservation grants, not directly to individual farmers, but to the States for distribution to cooperating farmers. The Soil Conservation and Domestic Allotment Act sets up five objectives: Preservation of soil fertility, diminution of soil exploitation, promotion of the economic use of land, the protection of rivers and harbors against the results of soil erosion, and the attainment of parity income for agriculture. Power to promote the last-named object will not be available until the State-aid phase of the act goes into effect, but economists and farm-management specialists are already studying the means by which it may be used, provided it is needed.

Soil conservation and good farm management were important objectives under the A. A. A. programs. As experience showed the need, the A. A. A. modified its original requirements so as to give contracting farmers more scope in combining their various crop enterprises in harmony with the national crop-adjustment programs and more incentive to protect and restore soil values. In the north-central region, for example, from two-thirds to three-fourths of the acreage diverted from corn, wheat, cotton, and tobacco went into legumes and grasses. This diversion, though of a temporary nature, was a good beginning in cooperative soil conservation. It was the first large-scale effort to correct the bad effects of cropping practices developed in the wartime and post-war booms, when much land not suited to continuous intensive cultivation was brought under the plow. In the South, farmers were allowed to increase their acreage and production of food and feed crops, which meant an increase in the farm standard of living.

The necessity for soil-conserving practices was long overdue. Soil depletion had characterized American agriculture for decades, and the overcropping which took place during and after the World War made matters worse. Though the demand for farm products declined in the twenties, and though farmers had apparently a strong motive to alter their cropping systems, the acreage of cultivated, soil-depleting crops continued to increase. Burdened with debt and driven by low prices to seek compensation through more and more production, farmers kept on mining the soil. The A. A. A. enabled them to adopt a better course. With higher prices and benefit payments in view, they could begin to think of their permanent, as well as of their immediate, interest in the land and, to some extent, could stop selling the fertility of the soil piecemeal with the crops at low prices to foreign countries.

Research and Demonstration Authorized

The soil problem received special recognition when Congress passed the Soil Conservation Act of 1935, which provided for a general program of research and demonstration to be conducted by the Soil Conservation Service in cooperation with the State experiment stations and with farmers. Broadened and amended after the Hoosac Mills decision, the measure evolved into the Soil Conservation and Domestic Allotment Act. This act recognizes a social as well as an individual interest in soil conservation and provides the individual