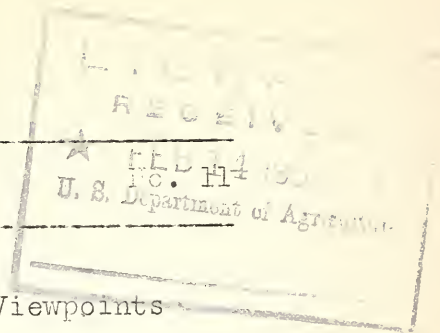


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Publication Extracts Which Present Diversified Viewpoints
On The Question
WILL CROP ADJUSTMENT BE NECESSARY OR DESIRABLE
IN YEARS TO COME?

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What Planning Must Accomplish

George L. Dickey

"Something must be done to release the farmers from bondage. To put the agricultural population in the United States in a healthy condition would necessitate raising the prices of farm products to such a point that each farmer would be able to: (1) Keep the fertility of his soil at least as high as the virgin soil; (2) have good buildings for his family, livestock, and implements; (3) have conveniences equal to those of the average business or professional man in the city; (4) have as great quantity, quality and variety of food as the city dweller; (5) have accessible as good educational, recreational, and medical facilities as his city brother; (6) enable the young farmer to acquire a farm of his own in a reasonable period of time."

"The Outlook For Agriculture"
George L. Dickey
Farm And Ranch
February 1, 1935

The Farmer Directs Nature

Omaha World Herald

"We give, as a matter of fact, altogether too much credit to nature for what the farm produces and too little to the farmer. Nature, it is true, is an abundant producer in its own way. And an abundant waster too*** To get one elm tree it produces a million elm seeds.

"But nature, if it were left alone to run the farm, would let mankind starve to death. Nature undirected by the cunning of man never produced a Holstein cow or 50 bushels of corn to the acre. Man's ingenious direction of natural forces did that. Agriculture is practiced close to nature, but there is as much of art and science in it as there is in the weaving of cloth or the fabrication of steel."

"Turnips and Shoes"
Omaha World Herald
March 25, 1935

Scientific Aid To Agriculture

R. G. Tugwell

"For many years, scientific work has been going on. New crops and better varieties of old ones, ways of treating and preventing diseases, ideas of proportionality among cultures have been developed. It is our luck to have made the greatest expenditures and attained the greatest successes in these activities; they may well turn out, in the end, to be the most useful aid we shall give our agriculture."

"Farm Relief and a Permanent Agriculture"

R. G. Tugwell

"Farm Relief"

Annals of the American Academy of
Political and Social Science

March 1929

Adjustment Through Conservation

Gilbert Gusler

"Above all, there is obvious need for a definite program of land utilization, for measures to take sub-marginal areas out of agriculture at a more rapid rate than economic pressure can force them out. The use of land for reforestation, for fish and game preserves, for flood control purposes, for sports and recreation centers will contribute something to a solution of the problem. New reclamation projects are out of place unless they bring in new lands distinctly above average in efficiency in relation to cost of reclamation and are accompanied by measures to take out of use areas of poorer land of at least equivalent total producing capacity."

"Daily Bread Is a Subordinate Problem"

Gilbert Gusler

Kansas Farmer -- August 9, 1930

Reduce Surpluses By Saving Soil

St. Louis Globe-Democrat

"Whenever individual farmers of the nation collectively subscribe to the recognized principles of soil conservation the worrisome problem of embarrassing surplus farm products will be in the way of solution, if not indeed be solved and sealed. To achieve these surpluses of which we complain we have driven our soils beyond their capacity to give without damage and we can point without pride to from 35,000,000 to 40,000,000 acres of worthless but once fertile land that certify the direful relationship between continual cropping of land and wastage of the sole farm value we call top soil.

"We have mined our land too long already, as many a farmer of middle age will testify as he looks out over sterile land that was rich and productive when he was a boy. It is time for farmers to get in step with science and save what they have left. And at the same time wipe out surpluses that have been their ruination.

"In broad terms the remedy lies in grass, especially where grass is needed to halt water and wind erosion that has not already stripped away top soils. In this program there must be fewer acres permanently in plowed crops and a proper rotation of fertility-holding growths; an increase of legumes and hay and a reduction of corn and the small grains, of cotton and other crops that require intense cultivation to bare land to the theft of erosion. In that way one hand will be made to wash the other. Surpluses will be reduced or discharged and richness of the land retained or even bettered."

"Kinship of Soil and Crop Control"

Editorial

St. Louis Globe-Democrat

November 20, 1934

There Is Less Need For Agricultural Products
As Industrial Raw Material

Bean and Chew

"Practically everything produced on the farm enters the industrial world as raw material for manufacturing industries, as material for transport by railway or steamship, or as the basis for various services. The interdependence thus created between agriculture and industry requires stability and continuity in farm production, rather than alternations of glut and shortage. Industries

using agricultural raw materials handle more than 41% of the materials consumed in manufacturing in this country. This percentage, however, is less than it formerly was. The decline indicates an industrial change to which agriculture must progressively adapt itself."

"Economic Trends Affecting Agriculture"
Louis H. Bean and Arthur P. Chew
July 1933

Agriculture Needs More Non-Food Crops For Industry

Wheeler McMillen

"Most students of agricultural affairs agree that it would be very desirable if the acres now devoted to producing surplus crops could be used instead for the production of non-food crops, of which there are no surpluses, or for the production of raw materials for industrial consumption. Progress in this direction has not been rapid, either because cultural methods have not been developed to a point where the given commodity can profitably be sold by farmers at a low enough price to attract manufacturers, or because the manufacturer's processes have not been developed to a point where he can pay a high enough price to induce farmers to supply the product. Yet such crops are highly to be desired.

"Purely for purposes of illustration, an instance of little immediate importance may be drawn from the field of insecticides. We know that for combating orchard and crop insects we are using arsenical sprays in tremendous quantities, because no spray not injurious to human beings yet fatal to insects has so far been developed that is a cheap enough substitute for the poisonous mineral. Consumers are being taught to object to arsenical sprays, and the percentage that may adhere to fruit or vegetables is rigidly limited by Federal regulation. Now, it is a fact that sprays fatal to insects and nonpoisonous to human beings can be made from pyrethrum (a daisylike flower now imported from Japan) and from certain roots that grow in the tropics. This country had perhaps one hundred and fifty acres of pyrethrum being grown more or less experimentally in 1935, but farmers have not taken it up extensively because they do not see enough in it."

"A New Plan to Create Farm Wealth"
Wheeler McMillen
The Country Home
December 1935

Free School Lunch Instead Of Crop Adjustment

Editorial

"Joseph Lyons, Australian premier, suggests as a cure for the world-wide over-production of foodstuffs that every school child be given a daily free lunch by the State.

"The idea is a laudable one in itself and simple arithmetical calculation will show that as a cure for the farm problem it is not so nutty as it sounds. For example, there are 36,000,000 school children in the United States. They represent, numerically, about 28 per cent of the total American market for foodstuffs and, on the basis of appetite, undoubtedly an even more important percentage....

"Now it is true, of course, that most of the children eat lunch. However, they could eat more. We are sure of that. Then suppose that, under the stimulus of proper coaching and free provender, they should double their present intake of food at one meal per day. The result would be an increase of approximately three fifty-sixths in the national consumption, and that alone would absorb handily about two-thirds of the normal exportable surplus of foodstuffs.

"The farm problem would be just about solved, assuming we have made no mistake in our figures. A great deal might depend also on the luncheon menus. There are some things children simply will not eat enough of, even when it is made clear to them that great national issues are at stake."

"Free Lunch" Editorial
Providence, Rhode Island Journal
October 18, 1935.

Increased Food Consumption Is Not A Solution

Editorial

"There can be little doubt but that a full dinner pail in the hands of the world's population, civilized and uncivilized, privileged and underprivileged, would solve the world problem of surplus food -- that is, solve it for the moment, until striving agricultural nations built up a new surplus and new embarrassment. But that is a distribution goal that will never be achieved. So advanced countries will have to find ways and means of maneuvering consumption to a position within reasonable reach of production, if not the other way around.

"One way, of course, would be to enlarge our eating habits, as suggested by Lord de la Warr. The point of confusion is in the method of doing it. We can understand, for example, what would come to the pork production industry if we could induce every citizen to consume even one extra pig's knuckle, which may be translated as one-half of one pig's foot. We would be doing our part to send millions of pig feet on the hoof scurrying about their business of catching up with an enlarged consumption. But we would have to give the same attention to the pork chops, to beef in all of its parts, to other meat animals, the grains, fruits, vegetables and edible oddments that come to tantalize appetite until appetite is surfeited and surpluses begin to climb again. Whenever consumption balances production through dining-room devotion we will be a fat race, with possible starvation around the next crop failure corner."

"Would Eat Away Surplus"
Editorial
St. Louis Globe-Democrat
September 24, 1935.

Knowledge of Soils Necessary

Fortune

"Fundamentally, erosion is an ill resulting from injury to the vegetative cover. But a knowledge of the proper treatment of the vegetative cover depends upon a knowledge of various factors including, primarily, the underlying soils. Certain forest lands may properly be cut over and cultivated; others should be left to grow cedar pencils. Certain eroded cultivated areas should be put back to grass; others may remain in cultivation if the proper crops are planted. Both problems can be solved only by persons having a specific and accurate knowledge of soils and their qualities.

"Nothing surprises the layman more than the discovery that no such knowledge was available prior to the year 1870 or thereabouts. It would be supposed that earth, with which mankind has had a contact longer and more intimate than its contact with any other substance, would have been the first object of human study. Actually however very little advance was made in study of the soil until the end of the last century. A book written by Columella in the time of Christ remained the standard authority for 1,500 years and such knowledge as there was was almost entirely proverbial. Men knew the earth not by thought but by habit. When the Scotch-Irish came to Pennsylvania in the early eighteenth century they passed by the red limestone soils which made Lancaster the richest agricultural county in the country because limestone soils in Ireland and Scotland had been dry and subject to frosts. And the Palatinate Germans who eventually settled the district settled it not because they were more intelligent than the Scotch but because they were used to raising wheat on limestone soils in the Rhine Valley."

"Grasslands"

The Soil Problem

M. L. Wilson

"I believe that we will be making a significant mistake at any time if we lull ourselves with the delusion that only the short-time, immediate problems of agriculture require action. I feel that there are basic problems of even more profound consequence to the national welfare, not only of agriculture but of all groups which require action if this generation performs its civilized responsibility to posterity.

"This generation cannot ignore the crime of perpetuating an exploitive agriculture which already is bringing to the front a physical crisis in land -- land, which is the heritage of all of the people. I want to elaborate at this time on the problem of soil conservation and the significant place this problem must have in the future. The physical crisis in our land is of long-range significance, of deep national concern to all groups. * * *

"Many people do not appreciate the seriousness of the unwise use of land, particularly the exhaustion of soil fertility and the loss of soil. Many of them do not recognize that the continuous process of soil exhaustion, violating all of the canons of conservation, is rapidly reducing the productivity of our land, which is the heritage of us all and the foundation of our national welfare. They fail to recognize that exploitation of land is steadily increasing the cost of production of food and fibers on American farms and that this steady increase in the cost of production will necessitate a steady rise in the outlays of consumers for farm products, with a steady rise in farm income being necessary to meet capital and operating charges of farmers. Certainly, if we look at all of the farms in the United States as one plant, we would consider ourselves improvident to an extreme degree if we went on without a sincere effort to restrain soil exploitation, as it steadily eats away at the foundation capital which our land represents.

"Already 50 million acres of farm land has been ruined because the soil has been allowed to wash away. This is an area equal to all the land in farms in the states of Illinois and Indiana. Other millions of acres have been seriously damaged.* *

"While some measures to control erosion can be taken by a farmer regardless of his financial status, one who is making a bare living or is in danger of losing his farm is frequently not able to use all of his land in a conservative way. He needs a little margin to go on, if he is to think of the future as well as the present, and go to the trouble and expense of keeping part of his land from intensive production and protecting the danger spots from erosion.

"He will also be in a better position to practice sound methods of land use if he knows that, while he is conserving his land, other farmers are not using theirs for maximum production of commercial crops. If he can be assured that the market for the products of his farm is reasonably safe from the danger of glut by unsalable surpluses, he can turn his attention to good practices of farming rather than using his land to the limit. This will make for abundant production in the long run, but will avoid 'mining' the soil for a few years and having then to abandon it.* *

"There are two principal phases to the problem of making the best use of all our farm land resources.

"One phase is concerned with correcting the mistakes in land use that have already been made. The remaining area of the public domain must be protected from further unwise settlement or overuse in grazing. Lands unfit for farming -- too dry for cultivation, or too hilly, or too poor -- need to be directed to better uses, as forest lands, range, recreation areas, or other uses which will provide better livelihood for people and prevent further erosion and wastage of the soil. Some of these readjustments can be made only through outright purchase by State or Federal governments; others may be made through zoning laws or other measures adopted by State and local governments. * * *

"The other phase of the problem is concerned with conserving the productivity of the good farm lands of the country, and preventing their deterioration into 'problem areas'. This task, which affects the great bulk of the 360 million acres of cultivated farm land on which the welfare of the people as a whole depends, deserves to be a basic national concern.

"Man may in a few years destroy the work of centuries in the building of soil.

"His crops may continually use up the organic and mineral nutrients of the soil without replacement.

"His cultivation of the soil, in keeping large areas loose and open to sun and air for long periods of the year, may cause excessive oxidation, or slow 'burning', of organic matter, depleting the soil of this necessary material.

"His cultivation of slopes and hillsides, in removing the cover from the soil, may allow large quantities of the soil to be washed away into streams and rivers, or be blown away by wind, even on level land, thus removing the important top layer of soil.

"This last effect of man's activity, called erosion, is by far the most rapid and serious in depleting the resources of the soil. The Soil Conservation Service estimates that it takes

only about three years of tilling moderately steep slopes in the rolling Corn Belt of northern Missouri and southern Iowa to lose an inch of topsoil which had taken the slow process of nature at least four hundred years to produce. On a steep slope, the inch of top soil may be lost in one year, or even by a single rain of the 'cloud-burst' type.

"The top six or seven inches of soil is of peculiar importance not simply because it is the top layer, which the farmer can 'get at', but because nature has long been preparing these six or seven inches for plant growth. It is this layer which has slowly been permeated with decayed organic matter, and made loose and workable by the action of animal and plant organisms -- that is to say, properly processed by nature for healthful plant growth. * * *

"With the end of frontiers, the period of exploitation of natural resources should end. Virgin timber areas are drastically limited. Good agricultural lands are settled. The nation's resources now must be used with a view to their future productiveness as well as their present capacities for profit.

"In the place of expansion and carelessly exploited resources, the nation must plan for conservation and efficient use of the resources that it has.

"Instead of unlimited agricultural production and greatly varying prices, the new policy must call for balanced production, and fair prices at relatively stable levels.

"Instead of sending huge shipments of farm products abroad at prices which did not compensate for the loss of fertility sustained by the soil in producing them, the nation must conserve its soil resources to meet present and future needs at home, and to supply such export markets as are available at adequate prices.

"All these readjustments should make for saving instead of wasting the surplus wealth of the land, for re-investing surplus wealth in improved living for the people.

"'Plenty without waste'. This should serve as a slogan for the future -- a program which recognizes the farmer, the farm, the consumer, and the citizen of the future. We cannot afford to follow the example of Northwestern China".

"The Challenge to Agriculture"
Address - M. L. Wilson
January 16, 1936

The National Interest In Agricultural Lands

H. H. Bennett

"The course that the nation must pursue if this is to be a permanently productive agricultural country seems clearly marked out. If we refuse to conserve our agricultural lands, obstinately continuing with old methods that have failed, then we may as well confess that we have consciously chosen to head straight in the direction of land disaster. Since posterity can not meet the task and since many farmers are unable to handle all phases of the work that must be done, the responsibility of the government is obvious. Aside from this responsibility, the government has a very definite and inseparable interest in the continuing welfare of its remaining areas of good agricultural land".

"Facing The Erosion Problem"

H. H. Bennett.

"Science"

April 5, 1935

Dust Storms Show Need For Soil Conservation

Nature Magazine

"Faster than any nation or any race that ever existed we have been destroying the fertility of our soil. For a little more than two hundred and fifty years we have been using this land of ours, and the greater part of it for less than seventy-five, yet the area once cultivated and now essentially ruined already amounts to nothing less than one hundred million acres -- roughly equal to the combined extent of Illinois, Maryland, Ohio and North Carolina. * * *

"From a thick, rich carpet of prairie grass, belly-high to one's horse, the lands of the public domain have been allowed to waste away until over large areas grasses and herbs palatable to grazing animals have totally disappeared. Unrestricted grazing has removed all vegetative cover and allowed the soil itself to blow away or wash away beneath every heavy storm. The plants themselves have been so heavily grazed that no seeds could be produced, and with this depletion has come an appalling wastage of soil by erosion. Progressive cutting of gully after gully has transformed this entire country from a richly productive region to a shambles of winding gullies and shifting soils. Year after

year the process of destruction multiplied, but we never raised our hand. We needed some startling event to dramatize this spectacle of prodigality. We got it.

"On the 11th of May, 1934, a dust storm obliterated the sun over a great portion of the United States. Then and there we were having notice served on us that the time to pay the piper was not far away. Such a thing had never happened in America. It was an historic event, that dust storm, perhaps of greater ultimate significance to this country than the landing of the Pilgrims or the signing of the Declaration of Independence. And since then those 'dry blizzards' are not becoming less frequent or less severe. * * *

"Those who have labored in the field of conservation long enough to acquire a background and lose a few cherished illusions have come to realize that in this task of rebuilding our depleted resources a happy beginning is not enough. Eternal watchfulness is the price of all conservation progress. There are inevitable set-backs, there are the ever-present dangers of predatory interests, political barriers, public apathy, inefficient public servants, and the rapacity of the spoils system. That is why this first real attempt to undo the greatest conservation scandal of our time should be watched with jealous eyes by everyone interested in conservation. Its creation puts squarely on the shoulders of all conservationists the responsibility to see that the new Soil Erosion Service remains unhampered by frog-pond politics, and is not allowed to degenerate into a grab-bag for deserving politicians. And the essence of the problem is time. In spite of past butchery we can still bring back our wildlife; in spite of forest fires and destructive lumbering we can still regrow our forests; but once we destroy the soil, the great nurturing mother of them both, we are in pitiable straits indeed. When that time comes we shall be on our way to join the great ghost civilizations of the past."

"The Soil and Civilization"
Nature Magazine
July, 1935

Some Far Reaching Effects Of Erosion

Mary Heaton Vorse

"That field illustrates how far the loss by erosion reaches. A woman in town put all her savings in a mortgage on that field. Mortgages on farm land were safe investments, she was told. Land couldn't walk away. That was a mistake. Land can walk away -- or at least run away. Land can blow away, too. All that is valuable in land can be lost in a few years. After a time the people who owned the farm could no longer make a living from the ruined land. The woman reluctantly foreclosed. Now she, too, is ruined. A miserable tenant is trying to make a living on what used to be a good farm. But he can't make a living. The land is down to the lower subsoil, and he's on relief.

"So erosion doesn't mean only a loss of land. It's something that concerns every single person in the country. Banks and insurance companies everywhere are affected by erosion, for they hold mortgages on land which is running away downhill into streams. That's bad enough, but it isn't all. The soil raises the river bottoms, and the river overflows and damages other farms. Streams that once were navigable are choked with the debris of erosion.

"The country is full of dams and reservoirs silted up and choked with mud. Elephant Butte dam, which supplies El Paso and the southern Rio Grande region, will be silted up enough to cause serious damage in sixty-three years. The engineers who built it gave it a life of two hundred and thirty-three years.' Here you have another class of people affected by erosion. Any one in industry and manufacture who is dependent on water power is affected, as are all living on irrigated land. When people are driven on relief because the land can not support them, it means higher taxes for those who still have work.

"Wherever you find submarginal land being used for farming, you will also find submarginal people. Where conditions of land are poor, people deteriorate. Not only in the Carolinas do you find such conditions. You may find some fine examples in northern Wisconsin, in the cut-over Michigan timber districts where schools have to be maintained at great expense for the children of the settlers, who are most of them now on relief. The Kentucky, Tennessee, and Missouri mountains are full of these submarginal people. * * *

"Their existence can not be equaled for meagerness. They are isolated, having no part in any community life. They don't know their neighbors, moving as often as they do. They own nothing, look forward to nothing, aspire to nothing. Submarginal

people starving on land too worn-out to give them a living.

"The frightful thing is that this waste of Our Land and the consequent impoverishment of the people has been entirely unnecessary. All through New England, Pennsylvania, and New York State the land has been farmed constantly ever since the first clearing over two hundred years ago, and is still as good as ever."

"Our Land"
Mary Heaton Vorse
Good Housekeeping
July, 1935

Consider The People As Well As The Soil

I. Bowman

"We habitually hope for the better with respect to those destructive forces that we have long attributed to Providence. Perhaps this year the drought will end. But even if that desirable change is realized, the bad effects will last for some time; and hope plays but little part in bringing back a state of balance that man right now continues to disturb with criminal thoughtlessness. Hope will not bring the sod cover back. After the fields have had their top-soil blown off, we enter a long period of both waiting and experimentation to see if the grass will grow again or if a wetter period in the future may not be required to restore the cover, with some areas eroding meanwhile to a still more extreme stage of destruction. Some of the effects of plowing and wind-stripping will be projected into the future, we can be sure. In our troubled times we can see the wisdom of a Bacon, who wrote of 'Seditions and Troubles' that one of the first remedies was 'the improvement and husbanding of the soil'.

"In any event, and whatever the balance between hope on the one hand and soil and weather possibilities on the other, we ask, wisely, I think, what kind of people and what kind of society will the high-risk areas of the western Great Plains support? Do we want that kind? Our people are our greatest resource. 'Tell me what society you want', says Zimmerman, 'and I will tell you what your resources are'. We are dealing with a social, that is, a cultural complex as well as with a complex of natural conditions and forces. Walter, of the Meteorological Service of British East Africa, wrote in a paper read before the Kenya Society for the Study of Race Improvement: 'I desire to call particular attention to a point which is often missed by

research workers when the human element is in question. Do not let us generalize! A climate suitable for one type (of settler) may be very unsuitable for another.....! Once nature seemed capricious, but the deeper we study her the better able we find ourselves to master or deflect or avoid some of her forces. It is man himself who now also needs understanding and control by reason. If nature were as capricious as man we might well give up. If we invoke the aid of science, what relation have its rationalities, points of view and results (including perhaps its forecasts) to the problem of land use in the marginal areas of the Great Plains?"

"The Land of Your Possession"
Dr. Isaiah Bowman
"Science"
September 27, 1935

A Resume Of The Land Crisis

H. H. Bennett

"Unrestrained soil erosion is rapidly building in this country an empire of worn-out land. The cost of this evil to our farmers and ranchers amounts to at least \$400,000,000 annually, to say nothing of the enormous damage to highways and railways and the costly silting of reservoirs, streams and ditches. This appalling wastage is speeding up with the washing off and blowing off of the absorptive topsoil, down to less absorptive, less productive, more erosive subsoil. Over this erosion-exposed material, usually consisting of comparatively impervious clay, rainwater flows away faster from millions of denuded acres to increase the frequency and volume of floods.

"At least three billion tons of soil material are washed out of the fields and pastures of America every year. To load and haul away this incomprehensible bulk of rich farm soil would require a train of freight cars long enough to encircle the earth thirty-seven times at the equator. More than four hundred million tons of solid matter are dumped into the Gulf of Mexico every year by the Mississippi alone, along with many more millions of tons of dissolved substances. These materials come largely from the farms of the Mississippi Basin. The greater part consists of super-soil -- soil richer than that of the Nile. But the sediments entering the oceans represent merely a fraction of the soil washed out of fields. The greater part is piled up along lower slopes, where it is not needed, or it is deposited over stream

bottoms or laid down in channelways and reservoirs. Once the soil leaves a field, it is as irretrievably lost as if consumed with fire, insofar as pertaining to the field from which it is washed. It can not be economically hauled back, even that which is temporarily lodged not far down the slope.

"Thousands of farmers operating on slopes stripped of the more productive surface layer have but the slimmest opportunity to make a satisfactory living, whether prices are up or down. They have been lowered to the discouraging level of cultivating land whose productivity has been reduced from two to ten times or more by this tragic wastage, most of which could have been prevented. We find them, generally, not along the main highways, but in the back country, housed in miserable dwellings and living pitifully inadequate lives, with their system of cultivating little plots of ground scattered between gullies and abandoned fields. * * *

"The nation may as well realize now that it has a land crisis on its hands -- the problem of man-accelerated soil erosion, and that every stroke of work performed in opposition to this evil adds value to our most basic resource -- that resource which offers the last safe refuge for numerous families thrown out of employment through increased use of machinery, and that resource which after all is the principal security behind our national investments, our national safety and our national future. Beyond this most acute crisis of the whole land problem, the country may as well recognize now the physical fact, not an expression of opinion, that there can be no cure of floods or prevention of stream and reservoir silting until runoff is better controlled, all the way from the crests of ridges down across the watersheds where floods originate and silt loads are picked up, on to the very channelways of streams, which like other conduits have limitations upon their carrying capacity.

"Over many millions of acres a long time was required to strip off the highly absorptive topsoil, down to stiff clay of low absorptive capacity; but now that this has been accomplished, and since the surface layer is rapidly being removed from additional millions of acres, the battle is definitely on, and with no secure second lines upon which to fall back. * * *

"Regardless of our highly successful results with breeding more productive strains of crops and the introduction of new and better varieties from the ends of the world; in spite of the improved cultivation performed with more and better machinery, the increased practice of soil-building rotations and the growing of more soil-improving plants, the largely increased use of fertilizers and plant disinfectants; and further, in spite of all the education provided through our agricultural colleges, agricultural societies, clubs and institutes, soil surveys, economic surveys, experimental and extension services, farm journals, the press,

thousands of books and millions of bulletins, with frequent prizes for the best producers, our nation-wide yields have not increased -- rather they have decreased in the instances of some of our major crops. * * *

"The method of attack is essentially a coordinated plan of correct land use. This plan involves not only the use of direct methods of retarding erosion (which necessarily calls for retardation of runoff by increasing absorption of the rainfall), but the use of indirect methods such as the retirement from cultivation of steep, highly erosive areas from which accelerated runoff (resulting from incorrect land usage) descends with destructive effect upon lower-lying cultivated areas. Such retired critically vulnerable lands are being planted with thick soil-holding crops, as trees, grass, alfalfa, lespedeza, sorghum and clover."

"Soil Erosion"

H. H. Bennett

The Scientific Monthly

November, 1934

Soil Building The Fundamental Reform

C. W. Collier

"In brief, American civilization is in the process of destroying itself through the devastation of its environment. The threat is not one that can be met five hundred years from now. It must be met by this generation and its children. In ultimate importance, the problem may well transcend all others, for any scheme of social and economic reform must eventually fail if destruction should overtake natural resources upon which existence depends."

"At Last - A Soil Erosion Program"

C. W. Collier

"New Republic"

May 27, 1935

Living Off Our Capital

John D. Black

"The land-utilization problem, as it confronts us today, is a principal phase of our great national problem of conservation of our natural resources. Perhaps the possible depletion of our supplies of oil and coal and iron have received more attention in popular writing; but they are much less important to the future of the nation than the proper utilization of our soil resources. Here we are with a national asset of 1,903,000,000 acres of land of varying sorts and conditions and varying degrees of productivity in different uses. The problem is so to use these resources that present and later generations of us not too remote from the present will get the maximum use from them. If we employ them wastefully now for the sake of present profits, future generations will be denied much that we now enjoy. If this generation uses them too sparingly, those to come will never get as much out of them as we might have done. We shall have behaved like the long-distance runner who loses a race because he runs so slowly at the start that he is unable to catch up at the end. We must expect the future to take care of itself to a very considerable extent, to make scientific discoveries that will take the place of some of the resources which we are now consuming.

"There are extreme conservationists who are disposed to oversave, who think so hard about the billions of years ahead of us and the finiteness of present supplies that they weep to see any natural resources approaching even remotely a distant end; but this point of view is not characteristic of the American people. Rather, the opposite one of thinking only of immediate profits. The nation need not go to the extreme of the rabid conservationists, but it must look much farther into the future than the entrepreneur who is thinking only of the prosperity of his business in his own lifetime. Between the nation and the individual, therefore, is bound to be some conflict of interests of the same general sort as there is between a 1-year tenant and a landlord."

"Agricultural Reform In The United States"

John D. Black

McGraw-Hill Book Company

1929