THE BALANCE SHEET OF BALANCED FARMING

Address
by
Chester C. Davis
President, Federal Reserve Bank of St. Louis

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There are many approaches to this subject of balanced farming, of using the land right. There is the "scare" presentation which tells us how fast we are losing our good soil, and where we will land if we don't wake up; there is the ethical appeal to our sense of responsibility as custodians or trustees of the land; or it can be clearly shown that complete programs of soil and water management applied to the individual farms to hold the soil and make it more productive pay so well in dollars that the owners and operators simply cannot afford not to undertake them at once. I prefer to use the latter approach, with only a preliminary touch of the others for background and perspective.

It has been estimated roughly that man has existed for only about a quarter of one per cent of the age of the planet earth. The last few years - perhaps 10,000 - since man began to plant seeds and harvest the crops, probably amount to only one-fifth of one per cent of the age of man. Yet in that short time comparatively great civilizations have grown, flowered, and have perished because man destroyed the soil in which they were rooted; desert sands now blow over the marble ruins of once great cities.

It was only a little over 300 years ago that the white man's plow first pierced the soil of America - a span which compares with earth's antiquity as the tick of a clock with eternity. Yet the loss of the land, the waste and impoverishment of our soil in that span of years has been incalculable, and is still going on. You can see thousands of acres that prove the point on a drive of an hour or so out of Jefferson City.

Yet we know that if this nation is to hold the basis for its future greatness, each generation must preserve and enhance the soil resources for the use of generations to come. Up to now each generation has defaulted in this responsibility. The English government is now proposing that a farmer's right to hold and operate a piece of land be made conditional; that if he fails to operate the land as decreed by the State the land may be taken from him. We recoil from that

suggestion here. We prefer to tackle the problem through education, demonstration, leadership, and financial inducements or subsidies. But make no mistake about it, that problem stares us in the face and we haven't licked it yet in spite of some progress made. The day is gone, if it ever existed, when the fact that an individual holds a deed to a piece of land gives him the moral right to destroy it through stupid, short-sighted farming practices.

So much by way of background. I will soon be finished with generalizations and ready to get down to cases in the balance sheet of balanced farming or conservation farming or whatever you want to call it.

First let me say that when we organize county balanced farming programs, or set up conservation districts, or hold meetings or publish bulletins we are only helping build the picture frame. The painting in of the picture itself is done by actual, concrete performance on the individual farm. I want to drive home this point: the payoff comes in the adoption for an individual farm of a complete, integrated, balanced program of soil and water and crop and livestock management. The program to be fully successful must be complete. The mechanical engineering steps of terracing, contour cultivation and grassed waterways are not enough. Minerals need to be restored, soil health brought back with organic matter, with crop and livestock systems fitted to the land. It may take 5 years, or 8 or 10 to complete such a program on a farm, but the starting point must be a plan that sets out definite steps to be taken each year. When the plan is set, then it is up to the operator to stay with the job until it is done.

Proper land use on the individual farm is simply a matter of fitting the cropping system to the natural capabilities of the soil - determining the crops best adapted to the land, then working out an erosion control and soil building program which will give maximum output at minimum cost through increasing the productivity of the soil. That is the object of the balanced farming program in Missouri fostered by the College of Agriculture and supported by the State Chamber of Commerce, the Missouri Bankers Association, and other business and

civic associations in the State.

Not until that kind of performance is under way on every farm in the country can we rest assured that this nation has met its overall responsibility for the care of the land. Furthermore - and it has taken a long time for me to build up to the point where I talk like a banker - every dollar of new capital that goes into carrying out such a soundly conceived balanced farming plan will repay the investor or lender in short order through increased yields and lower production costs. The farmer or land owner or mortgage lender will have a better farm 5 or 10 or 20 years from now than he has today to operate or to secure his loan, an assurance altogether lacking in American agriculture as a whole right up to now.

I could give you from the records thousands of illustrations ranging from single cases to surveys that cover thousands of farms, to show that farmers who do the best job of maintaining their soils make the best incomes. It will save time if you will accept that as true, and will permit me to get on with the story of some cases we have studied here in the Eighth Federal Reserve district which will, I hope, bring the problem down to dimensions where we can grasp it.

We have studied a number of individual farms which had completed soundly planned land use and farm improvement programs and on which a long series of good records of costs and production are available. We wanted to determine what it costs to convert a farm in a given area from an exploitive to a balanced system of farming. We found out what the differences were in cash returns from a balanced land use program as against the old wasteful system, and identified the amount of income that could be traced directly to expenditures for soil conservation and soil improvement practices. It has been intensely inter sting. There is wide variation in the type of practices required in the shift to a balanced system of farming, in the per acre cost of making the shift, and in the rapidity with which farm improvement investments pay for themselves. These variations are found between different areas of our district and to a great

degree within relatively small communities. I think it is significant that in all the analyses of individual farms we have completed we have not found a single instance in which the investments made for soil conservation, soil building, and related farm improvement practices were not highly profitable. I can best illustrate these variations by giving you dollar and cents figures on some individual farms.

I want to tell you first about an analysis we have just completed on a rather typical 120 acre Harrison county farm which began a planned improvement program in 1936. This farm is like much of Missouri's hill land. It had been badly exploited. Practically all of the original topsoil had been eroded away, and the mortgage holder had taken possession. It no longer supported a farm family and had become a community liability. Then, in 1936, a new owner began to work out a farm improvement plan, in close cooperation with the county agent and the Soil Conservation service technician. The start back to profitable production was a little slow. Calculated on the basis of average prices received by Missouri farmers for the period 1925-1939, which puts corn at 73¢, oats at 40¢, alfalfa hay at $12.50 and pasture at $1.50 per mature cow per month, the average value of output on the farm for the first four years, 1936 through 1939, was only $846.20. Using the same average prices, which you will agree are conservative, the value of output for the four-year period, 1942 through 1945, was $1,987.99. Putting into practice a complete balanced farm program on this farm has increased the output by $1,141.79 per year - more than double. That's one side of the balance sheet. Let's look at the other.

It required considerable new capital to produce the increased income on this farm. During the ten-year period, 1936 through 1945, a total of $3,350.10 was invested in fertilizer, lime, waterways, terraces, fencing, etc. Operating costs under the balanced system were about the same as under the old system, so this $3,350.10 represents direct costs of the improvement program. For the same ten-year period income that can be traced directly to the improvement investments amounted to $4,922.10. In other words, during the ten-year

period the improvement investments completely liquidated themselves, and in addition, paid the farmer an extra fifty per cent for his efforts. Today the value of output from this farm based on average prices is $1,141.79 above the level which was possible under the old system, and this increased income can be maintained at a cost of about $300 per year. This leaves a net income increase of $841.79 per year for better living on the farm.

Take another Missouri example - a 267 acre farm in northwest Missouri, where a ten-year program of converting to a sound and balanced land use program cost a total of $9,714. The problem on this particular farm was primarily one of erosion control. The mineral content of the soil is reasonably high but the topography is rolling and the soil erodes badly. While some minerals are needed for maximum crop output, most of the costs of the farm improvement program here went into erosion control practices, such as terraces, grass waterways, concrete outlet structures, and new fences to line up the fields with the lay of the land. Over the ten-year period, the return from the investment was $15,655, figuring the increased production at the average Missouri farm prices I gave you.

Even at these low prices, the increased yield was enough to liquidate the full cost of the program and leave the farmer an additional 50 per cent for his efforts. The annual income from the farm was increased by $1,944 and the maintenance cost of the program, above the ordinary operating costs, runs approximately $300 per year. On this farm it cost $36.38 per acre over the ten-year period to complete the program and out of that amount $33.25 per acre represented permanent improvement to the land.

Contrast this Missouri farm with a 584-acre farm located in the brown loam hill area in Northwest Mississippi on which a complete improvement program was carried out in a six-year period at a cost of $7,834 and with added returns of $12,527 for those six years that can be traced directly to the improvement investment. The cost averaged $13.41 per acre, over half of which went into lime and mineral fertilizer. Permanent improvement to the land was $6.37 per acre.

To make the analysis a little broader, let me consolidate some figures from ten farms scattered throughout the Eighth Federal Reserve district on which we have analyzed the records of similar farm improvement programs on a before-after-and through-the-middle basis. These ten farms include a total of 2,255 acres of land with an average normal appraised value of $47.64 per acre at the time the improvement programs were started. The time involved in the improvement programs has ranged from 6 to 10 years and for the ten farms averaged eight years. The average improvement cost per acre has been $29.28 which is approximately 61½ per cent of the original normal appraised value. However, the average per acre returns during the period in which improvement programs were being completed increased $65.47 which is a $2.20 return for every $1.00 invested in soil improvement. Of the total of $29.28 invested per acre, $17.58 represented permanent improvement to the land and raised the normal appraised value on the average from $47.64 to $65.22 per acre.

The average farm of those analyzed would be a 225½ acre farm with a normal appraised value of $10,744 at the time the improvement program was started. An addition of new capital in the amount of $6,603 would be required to complete the improvement program in an eight-year period. This investment of new capital would result in increased income in the eight-year period of $14,568, or $2.20 return for each $1.00 invested. The yearly income from the farm following the completion of the improvement program would be increased by $2,391 with an annual maintenance cost of $568 which would leave a net increase in income of $1,823 per year. The normal value of the farm would have increased to $14,708.

That, I think, pretty well gives the story for the individual farm, and while I have long been convinced of the moral responsibility we have towards sound land use, these studies and a pile of other evidence prove to me that, morals or ethics aside, from a cold business standpoint, the man who controls a farm cannot afford not to start now on a complete and integrated program of convervation farming.

Now it is true, of course, that there will be individual instances where the farmer lacks sufficient liquid reserves to meet the need in his particular case. He may have to resort to borrowing to carry out a sound soil improvement program. I am convinced that a well-planned soil improvement program carried out under the right kind of supervision is a sufficiently profitable venture to justify the extension of credit for its completion. Farm improvement plans can be developed and financed on a basis that will enable the farmer to repay the borrowed money from income earned directly by the improvement investments. It requires a little different type of loan than the conventional real estate loan or the crop production loan with which we have long been familiar. Lending money for farm improvement programs requires a careful analysis of the individual farm and a flexible extention of credit wherein money can be advanced in varying amounts on farm real estate mortgage security over a period of years.

The repayment program needs to be geared to the income pattern of the farm, varied in amount repaid from year to year as income from the improvement investments develops. I know of no other type of farm mortgage credit that is so obviously self-liquidating as a loan for soil improvement. In the cases we have figured from a credit standpoint we did not count A.A.A. conservation payments in as income available to help repay the investment or retire the loan. If we had, the repayment schedule would have been greatly shortened.

Every man must look out on the world from where he stands, so I have told you this little story about the Eighth district, though it is not different from many that others may tell. Multiply the single farm by hundreds for the community, tens of thousands for the state, and millions for the nation, and what do we get? Vastly increased returns, reduced costs of production, and larger profits even at the lower price levels we shall one day see. In the aggregate, a land that is at long last adjusting itself to eternal fruitfulness.

During the period of World War II, we have seen miracles of production by American agriculture. Food and fiber grown on our farms sustained our armed forces and that of our Allies and helped keep civilian lives going in friendly

lands abroad. With only 15 per cent of the Nation's labor force in their ranks, the farmers of the United States brought food production 30 per cent above the prewar level and held it there.

This increase resulted primarily from bringing into focus during the war the technical "know how" of farming that had been developed but not fully utilized during the inter-war years. I think that as more new farm machinery becomes available, as more commercial fertilizer and lime are produced and made available to farmers, as more and improved erosion control practices are applied, and as more of the technical "know how" is taken out to the farms we may look forward to a continued high level of production well above the prewar levels.

This means that the years ahead will see great shifts and developments in American agriculture. The increasing productivity per worker in farming has resulted because farmers, year by year, have commanded more and more capital per worker in the form of machines and land. As one pair of hands gets more and better tools to work with, their owner manages more land and works it better; his unit costs go down, and the farm yields higher returns and better living per worker. This trend is going to continue; it is inevitable. It means better homes and a better life for those who remain on the farms. It also raises the question whether the growth of decentralized industry throughout rural America will be rapid enough to absorb the workers who are released from the farms as mechanization proceeds.

I do not think this development necessarily will be troublesome. It is a question of the right human behavior. Think what it would mean if all our population at home became educated to want and demand a full, healthful, rich diet! You know we can keep 10 to 13 times as many people alive on an acre in cereals, as can be fed on the livestock products from the acre, but we are not likely to do that in this country. The trend is the other way. We could use our farm resources fully, with more workers than are now employed in agriculture, if all our people could buy and consume the dairy-and-livestock diet necessary to maximum national health.

We have made a great deal of progress. The rate is not fast enough. On balance, we are still losing ground. I believe the American public is soil conservation conscious; that business, and civic, and financial interests and organizations will support an intelligent program to get conservation plans made and performance started on farms where it is most needed. I think we all see that the goal is worthwhile. Leadership, it seems to me, will have to come from agriculture - the Department, the State colleges, and the farm and cooperative organizations. But in each community the business group can help enormously. The Missouri Chamber of Commerce is public spirited. Its members are interested in the economic development of their communities. What does that simple story of the Harrison county farm, for example, mean to you? Suppose we project that single farm balance sheet into a county balance sheet so that we can better view the impact of balanced farming on the economic life of a community. Harrison county, according to the 1945 census, has 441,985 acres of land in farms. Like most counties with a considerable area of hill land much soil damage has resulted from exploitive farm practices. Repairs can be made; they require new capital. Responses may be slow during the early stages of the improvement program, but in the long run returns are high. Suppose that, as a result of aggressive action, one-third of Harrison County's farm land could be placed in a reasonable period of time under a complete balanced farming program with results in line with those on the single farm I used as an illustration.

New income totaling $1,400,000 annually would be produced in the county. This level could be maintained with an annual maintenance outlay of about $368,000 above the customary operating costs. The increased net income to farmers would be over $1,000,000 annually - a million dollars a year to be used by farmers for new farm machinery, modernized homes, household appliances, and the many other things that go into better living on the farm. I don't need to remind you how much effort and how much money the chambers of commerce and local business leaders of the ordinary Missouri county seat town would put forth to induce a manufacturing concern to bring in a plant with a million dollar

payroll.

Recently I have spent a great deal of time driving over Missouri, Southern Illinois, Western Kentucky and Tennessee, and other parts of the Eighth Federal Reserve district. I saw the enormous waste and destruction caused by row-cropping the hills and slopes. Hundreds of thousands of hills and slopes in this country ought to be in permanent pasture or legume and small grain rotation instead of growing sorry crops of cotton and corn. Overcropping and overgrazing, failure to keep proper cover on the farm and ranch lands of the Great Plains have exacted their toll in repeated disasters.

We are dealing here with a subject as broad and as deep as human life itself. It is impossible for me even to touch on all its facets in one compressed treatment. Scarcely a word has been said on the highly important subject of timber. In our part of the country men no longer say reforestation and tree cropping is not a field for private investment. Individuals and corporations are demonstrating that high yield and safety both can be found in intelligently managed pine and hard wood timber lands. Nothing has been said about the fundamental importance of this program of land and water management to wild life, fish and game.

I could talk to you all day about the amazing opportunities all around us to build safer and more profitable farms on the ruins of the old ones simply by using the land right. Balanced farming and soil conservation are not only right morally - they pay big dividends in dollars and cents. We can use a lot of the capital and the labor we have in every community to put complete soil-and-water-use programs in effect on individual farms. We have the capital, the tools, the "know how", the minerals, and the seeds and plants with which to work a farming revolution here. The only thing that stands in the way is human inertia - human behavior again.

Now in conclusion: Along with some of you, I've gone the full cycle from the last war to this watching the evolution of farm policy aimed to provide remedies for farm problems as they unfolded. I am not afraid of the

new or the untried, or of government action. But I know there is no magic. There is no substitute for efficient production, which can be secured by the intelligent use of plenty of capital per man in the form of land, tools, buildings, lime and fertilizers, and livestock. Nothing can take the place of good management of our soil and water resources.

It will be better to seek high returns per worker through large-volume, low-cost production, than to try to get the same high return by means of high prices for scarce, limited production. But the rest of the economy must play the game under the same set of rules. The recent coal strike gave grim warning that some of the rules of today must be revised and speedily if we are to avoid national paralysis and disaster.

There is a way to lick these problems here at home, and that is to have genuine teamwork of labor and industry and agriculture rooted firm in the understanding that the common good must have priority over the special interest of any one group. We give lip service to that principle, but we let it end there. We are either going to practice that kind of teamwork, or we are going to have trouble - plenty of it. If each major group insists on going down its own road, with no real meeting of minds on national policy, we will court national disaster. The same principle applies to the international situation, as well, but now I'm talking about the domestic scene.

We must have genuine recognition of the principle that we can't prosper by "gouging" each other - we just can't gouge our way to prosperity. We may think we have progressed far from "the public be damned" attitude of the early Vanderbilt, but each day gives evidence that we have not. Genuine teamwork based on the realization that we have to produce something before we can divide it up, could yield us a gigantic national product to share. Let's go ahead and produce it.

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